IJS
International Journal of Sciences

Published online 06 25, 2023
ISSN 2763-5392

Nursing perception regarding the care of patients with chronic renal failure

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To cite this article:

Nascimento, L.M.S.; Lemos, R.L.L.; Barboza, B.M.S.; Silva, L.R.; Araújo, S.M.S.S.; Lacerda, S.D.L.; Silva, L.L.; Silva, G.S.A.; Assis, R.H.; Melo, F.M.S. ***Nursing perception regarding the care of patients with chronic renal failure.*** *International Journal of Sciences.* Vol. 5, No. 2, 2023, pp.04-09. ISSN 2763-5392.

Received: 03 30, 2023; **Accepted:** 04 05, 2023; **Published**: 06 25, 2023

Abstract: Chronic Renal Failure (CRF) is a disease that affects the functionality of the kidneys, and can cause irreversible organ failure over time. The rate of patients requiring renal replacement therapies, such as hemodialysis, is growing in the country. The main treatment used for chronic kidney disease is hemodialysis, which acts as a blood filter, excluding all toxins and excess fluid by means of a machine that has its activity presented as an artificial type of kidney, where a dialysis compound is applied, which its main component is water. To describe the role of the nursing team during the treatment of the patient. A literature review, of the integrative type, which searched articles in secondary databases, Lilacs, SciELO, in the period between 2007 and 2017. A total of 30 articles were found and after the exclusion criterion, 05 articles were analyzed. The nursing team is very important in the development of quality of life, treatment, care management, and coping process with chronic kidney disease (CKD). Conclusion: the nursing team has a primary role for quality of life, survival and treatment success.

Keywords: Kidney Disease; Hemodialysis; Patient.

1. Introduction

Chronic Renal Failure (CRF) is considered a continuous, slow and permanent damage of the renal system to dissipate the toxic substances that are produced by our body, and that concentrate in the bloodstream. Its incidence has grown worldwide,with a forecast of 8% to 16% (GARCIA *et al*, 2016). It has a high mortality and morbidity rates in addition to high financial costs, (Fassbinder *et al*. , 2015).

In Brazil, other diseases contribute to the severity of the development of CRF, which are arterial hypertension and diabetes mellitus. Such diseases are more present in the age groups between 65 and 74 years and over 75 years, with a predominance of 52.7% and 55% for arterial hypertension and 19.9% and 19.6% for diabetes, in this order (SBN,

2016). In the worsening of CRF, patients may become dependent on Renal Replacement Therapies (RRT), such as hemodialysis, such as peritoneal dialysis, or transplants. (CUSUMANO *et al*. , 2010). In 2013, hemodialysis corresponded to

90% of the treatment of choice for chronic kidney patients in Latin America, of which 43% were in Brazil (SANTOS, 2017).

Censuses collected by the Brazilian Society of Nephrology (SBN) identify the gradual growth of chronic kidney patients in the country over the years. In 2016, the predicted total of patients undergoing dialysis treatment was 122,825, of which 113,122 underwent hemodialysis in the 747 dialysis services in activity in the country, where 67% are located in the Southeast of Brazil (SBN, 2017).

Hemodialysis is a method widely used in this renal therapy, whether chronic or acute, to balance the electrolyte and eliminate toxic substances from the body through the dialysis solution that has water as its main composition. Hemodialysis has the attribution of filtering the blood, eliminating toxic substances and excess fluid by means of the hemodialysis machine that plays the role of a

"Artificial kidney". Nowadays, this treatment lasts about 4 hours, 3 times a week (PINHEIRO, 2012).

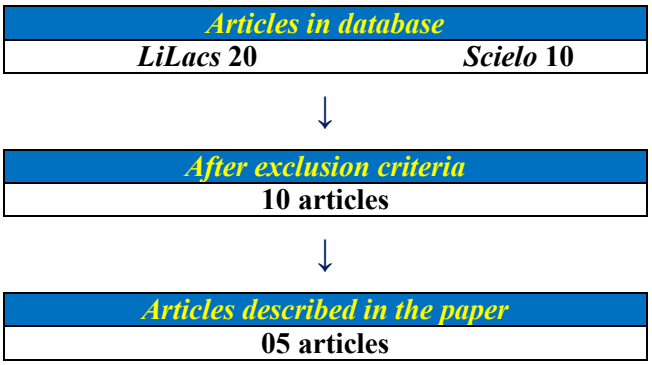
The nursing professionalworks with the multidisciplinary team, in the context of the CKD patient, where it promotes the performance of care management, and assists in the management of patients, in view of the use of medications, and the possible interactions of the disease and reactions to treatment, since these patients require a large amount of care (SANTOS, 2016). This study aims to describe nursing's perception of the care of patients with chronic renal failure.

2. Methodology

The present study is an integrative literature review on the perception of nursing regarding the care of patients with Chronic Renal Failure (CRF).

For this research were taken into account the articles inserted in the LiLacs and SciELO databases, in the period between 2007 and 2017, in 10 years of time bond, as search criteria were used the keywords: anemia; CKD; nursing team. Findings were excluded from searches in books, monographs and dissertations. Of the articles retrieved in this initial research, only those that met the inclusion criteria were selected:

1) CKD;
2) Relationship between CKD and nursing care;
3) Articles in Portuguese.



In order to have theoretical support to discuss the theme and the problem of the research, based on the theoretical and conceptual framework.

3. Results and Discussion

For a better understanding follows table with the summary of the articles that support this discussion.

Table 1. Articles analyzed in the research.

Author, year	Goals	Methodology	Findings
Prestes *et al*., 2011	Understanding nursing workers' perception of hemodialysis patients	Qualitative research in which the semi-structured interview	The complexity of the affective relationships between nursing workers and patients on hemodialysis is evidenced, as well as the need for future investigations on the work in hemodialysis services
Silva *et al*., 2016	Identify key diagnoses, outcomes nurs intervention and validate a caf and plan prop osta	Cross-sectional study with 68 patients	The study allowed identify diagnoses and select nursing results and interventions for application in clinical practice, with

			a view to
	for patients on peritoneal dialysis.		to subsidize the care process and the knowledge of nursing taxonomies.
Pichinelli and Miracles, 2018	To know the compression of the nursing team in the face of the process of individual care	Observational study descriptive exploratory cross-sectional with a qualitative approach through semi-structured interviews.	The results of this study suggest finding the common feelings in young people undergoing hemodialysis, their perceptions of the treatment and the team of nursing responsible for care.
Sousa *et al*., 2019	To identify in the literature the role of the nurse in relation to the chronic renal patient, the aspects that influence the patient's life /Chronic renal client and the consequences on his survival.	Literature Review	Must perform a service careful and assistential with patients with renal failure. It was also observed the importance of reflection on the attitudes to be taken towards these patients, inserting- in humanized practices aimed at transforming the performance of nurses in the face of chronic
			patients.
Silva and Takashi	To analyze the role of the nurse in the care of patients with chronic kidney disease on dialysis in the intensive care unit.	Integrative review	The nurse is very important in the development of quality of life and in the process of coping with chronic kidney disease, in the treatment of hemodialysis, is the person who has more contact with the patient before, during and after dialysis. Since the patient's life may depend on
			Many of these measures, the nurse must remain vigilant to detect possible complications during dialysis and take appropriate measures quickly

3.1 kidney disease: Concept and Treatments

The new concept of chronic kidney disease (CKD), used since 2002, has granted a permanence of the disease that is independent of its circumstance. Thus, this new questioning became obvious that CKD is much more constant than previously considered and its clinical evolution is related to high rates of morbidity and mortality (LEVIN AND HEMMELGARN, 2008).

Currently, CKD is considered a global public health problem. According to the Brazilian Society of Nephrology, 100,000 people are on dialysis in Brazil. Where there are 750 units registered in the country. The figures also show that 70% of patients on dialysis discover the disease late. The mortality rate for those who deal with the treatment is 15%. The number currently predicted for patients on dialysis and with kidney transplantation in Brazil is close to 120,000, at a cost of 1.4 billion reais (BRASIL, 2015).

Chronic kidney disease affects 10% of the world's population and affects people of all ages and races. The approximation is that the disease affects 1 in 5 men and 1 in 4 women, with an average age between 65 and 74 years, and half of the population aged 75 years or more suffers some degree of the disease (BRAZIL, 2015).

Kidney failure is a silent disease, by the time the body gives some signal that something is wrong, usually the organ has already lost 50% of its effectiveness. For this reason, 70% of deaths from renal failure occur even before diagnosis, according to the study by the Pro-Renal Foundation, a philanthropic entity that provides care to chronic patients (SBN, 2015).

Treatment, at first, is conservative, with the management of medications and special diet. Depending on the progress of the disease, the patient may receive the other treatments. Among the treatments, the options of choice are: peritoneal dialysis, hemodialysis and kidney transplantation. The choice of the best treatment covers the study of the clinical, psychological and financial conditions of the patient (LATA *et al.* , 2008).

The treatment of patients with CKD requires the recognition of distinct, however, associated factors that incorporate the underlying disease, the stage of the disease, the speed of GF reduction, pointing out the complications and comorbidities, especially the cardiovascular ones.

The patient with progressive symptoms of chronic renal failure is referred to a dialysis or transplant center prematurely in the course of progressive kidney disease. Usually, dialysis begins when the patient cannot preserve a satisfactory lifestyle with conservative treatment alone (SMELTZER *et al.* , 2009).

The substutive renal techniques are also known as artificial kidneys, this technique has been used for almost 40 years in the treatment of patients with severe renal failure. In certain types of acute renal failure, dialysis is basically used to condition the patient for a few days until there is a response from the kidney injury. Technological modernity of dialysis were developed to such an extent that thousands of people with definitive renal failure were kept healthy for several years (GUYTON, 2006).

The care of patients with CKD in the SUS is organized according to the staging of the disease, according to the calculation of the Glomerular Filtration Rate (GFR).

Estágio	TFG (ml/min/1,73 m²)	
1	≥ 90	Atenção Básica
2	60 – 89	
3 a	45 – 59	
3 b	30 – 44	
4	15 – 29	Atenção Especializada
5	< 15	

Figure 1. CKD classification. Source: MS, 2017.

3.2 Epidemiological Data

According to the latest study of the health Brazil 2018 program, of the Ministry of Health, people on dialysis, between 65 and 74 years old, this shows that, in 2017, the highest rate of Renal Replacement Therapy (RRT) per 100,000 of the population (782), related to other age groups. The highest ancestry was for males with a growth rate per year of 2.2% and 2% for females. The dominant race/color is white (39.6%) compared to the races/color yellow (1.2%), indigenous (0.1%), brown (36.1%) and black (11.4%) (SNB, 2018).

The highest rate by region of people in some form of RRT was in the Region

Southeast, with 236 people per 100,000, soon after is the Midwest Region (229 per 100,000 of the population) and the South Region, with 208 per 100,000 of the population. The rates of Renal Replacement Therapy were increased in all regions of Brazil, with an increase of 3.9% in the North; 3.3% in the Northeast; 3.2% in the Midwest; 1.7% in the Southeast; and 0.6% in the South (MS, 2018).

Saúde Brasil also shows that hemodialysis was the most used RRT modality among those affected by kidney disease, with an average of 93.2% related to peritoneal dialysis with 6.8%, between 2010 and 2017. In the same period, the value of the transfer by the Ministry of Health for the treatment of RRT and the supply of specialized drugs was R$ 19.7 billion and R$ 1.2 billion for kidney transplantation and medicationin the same context (SBN, 2018).

The Ministry of Health has been ensuring increasing resources for the subsidy of nephrology in the country. There were R$ 1.8 billion used in 2010, and in 2018 there were 2.69 billion, until the month of November of that same year. Thus, there was an expansion of 45% of the network of competent services qualified in the SUS for the care of chronic renal patients in the period: it went from 488 to 707. There are also constant adjustments in the SUS table directed to this type of

care. In 2018, 13,614,946 hemodialysis procedures were performed in the country. Currently, in the SUS, 26,676 instruments are being used for hemodialysis, where the distribution in dialysis services with the added capacity for the care of up to 160,056 renal patients (BRASIL, 2018).

The funds transferred to subsidies for nephrology procedures are forwarded per month, through the Ministry of Health, through the Medium and High Complexity Ceiling (Mac Ceiling), to the State and Municipal Health Funds. Funding, in addition to management, is passed on between the Federal Government, which determines the guidelines of health policies, and the states and municipalities, which are responsible for carrying out the services and organizing the health care network of society as a whole.

In the following graph we can see the growth data regarding the new locations that have emerged to cover more SUS care as well as patients undergoing hemodialysis.

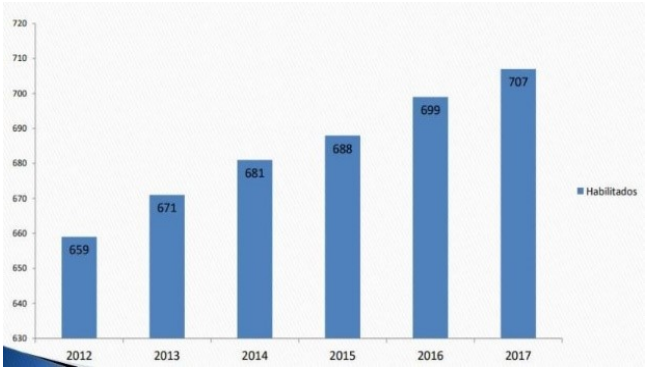


Figure 2. Number of Services enabled by SUS. Source: MS, 2017.

According to the survey conducted annually by the Brazilian Dialysis Census (SBN), data on dialysis in the country from 1999 to 2015 were entered. The SBN census collects data voluntarily and is reported by public and private clinics in the country. The adherence rate fluctuates, having been analyzed the highest return in 2007 (87.92%) and lowest in 2012 (39.17%)25. In order to reduce the effect of the response rate, the SBN provides estimates considering the expected numbers in the centers that did not respond to each survey, and the center is assigned an average number of patients expected in the region.

The prevalence of chronic kidney disease in the Brazilian population is still not so assertive. More current population estimates reveal about 1.5% of self-reported kidney disease. The prevalence of hypercreatinine in the population was around 3%. From this data, 3 to 6 million adults would have the disease. Regarding access to treatment, 0.05% of the Brazilian population is on dialysis, which would represent around 100,000 patients.

Based on the data the SBN (2018) 10 million Brazilians have chronic kidney disease (CKD) = about 5% of the population, 2.9 million Brazilians have only a third of the kidney function of normal individuals, 850 thousand deaths from chronic kidney disease are recorded in the world annually. From 28% to 46% of Brazilians over 64 years of age have CKD 120 thousand people with CKD undergo hemodialysis = 100% more than 10 years ago.

According to the Brazilian Society of Nephrology (SBN) Regional Pernambuco, there are approximately 100 thousand people in this type of treatment in the country. In Pernambuco, the number of patients reaches 5,140. Another rate of concern is mortality: between 5% and 10% of patients die each year.

Experts indicate that much of this extreme scenario of kidney disease is a reflection of a society where there is a lack of control of hypertension, obesity and diabetes. The challenges are to combat these factors to delay or diminish this picture, as well as to ensure better assistance.

Still according to the SBN-PE, the permanence in this treatment with hemolysis has increased the survival of many patients, when transplantation is not performed, but it is necessary to think and plan the future. Faced with this scenario in the state of Pernambuco, the State Department of Health (SES) reactivated in 2018 a nephrology technical chamber that routinely must evaluate the demands of patients. One of them is the expansion of treatment units. The North Forest is still being supplied. The other regions are relatively supplied. And the Ministry of Health project is a treatment unit for at least 200,000 inhabitants per municipality (SBN, 2018).

3.3. The importance of the nursing team in CKD treatment

Most of the nursing technicians/auxiliaries interviewed reported that the nephrology area was chosen because it was the first job opportunity after completing the technical course. They revealed that among the factors that can lead to the choice of the area of nephrology as a professional option, are included the interest/affinity for the health area, liking to take care of people, in addition to the job market being promising, and nursing is a valued area and presented as a career with financial return. However, there are few studies regarding the factors that lead to the choice for this specialty of nephrology (PIRES *et al*., 2016).

The significant number of articles published in nursing journals demonstrates that some nurses have not lost the essence of nursing care, which is to care beyond what is practical, visible and palpable. Although the biomedical model prevails in hospital practice, many nursing professionals still take advantage of prolonged time with their clients to try to capture evidence that is beyond their physical vision. Nursing has several requirements and attributes that distinguish it, and characterize it for being a profession of help in which the concept of care is genuine as a concept that encompasses the attributes that make it a human and helping discipline (PIRES *et al*., 2016).

4. Conclusion

Hemodialysis is a procedure widely used to treat cases of renal deficiency, whether in chronic or acute cases, to normalize the electrolyte balance and remove toxic substances from the body through dialysis that is composed mainly of water. The patient is submitted on average to 120 liters of water per hemodialysis session, equivalent to approximately 17,280 liters of water each year in the calculation where the patient performs 10 – 12 sessions per month. However, in certain circumstances, this volume can fluctuate by an average of 18,000 – 36,000 liters of water per year.

In view of what was discussed, the importance of the nurse's role as educator and facilitator of care care is contacted, requiring special skills, as well as understanding of the feelings that are expressed at the time of the hemodialysis session. In addition, it is emphasized the lack of training in the area, evidenced in the reports, being included as a factor that hinders care.

5. Acknowledgements

First to God, for having given me health and strength to overcome difficulties. To my parents, especially my mother, for their love, encouragement and unconditional support. And in memory of my dear father. To all my family members who also contributed directly and indirectly with their prayers, my eternal gratitude.

To all my colleagues and friends, my sincere thanks. You played a significant role in my growth. Some in particular, my affection and admiration.

I want to thank everyone at Univisa, especiallymy dear teacher and advisor Ana Cecilia Amorim for having accepted to share her knowledge, clarified countless doubts, for her time and patience dedicated to this work. .

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