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NURSING CARE TOWARD PATIENTS WITH CHRONIC KIDNEY DISEASE ON HEMODIALYSIS

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ABSTRACT

Kidney disease is characterized for kidneys inability to no longer execute its main functions. The present paper aimed to identify scientific publications about nursing care toward patientes with chronic kidney disease on hemodialysis. It is an integrative review to answer the question: what are the nursing care toward patients with chronic kidney disease on hemodialysis? We consulted the following electronic databases: Latin American and Caribbean Health Sciences Literature (LILACS), Database of Nursing, Medical Literature Analysis and Retrieval System Online, and Scientific Electronic Library Online, searching for free full-text articles in Portuguese language, with a publication date between 2012 and 2017, including a nurse as author. The found studies entailed the importance of family inclusion on care, quality of life and anxiety reduction of people with chronic kidney disease. Nursing care is relevant for therapeutic efficacy because it contributes to clients health promotion.

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INTRODUCTION

Chronic kidney disease (CKD) is a clinical syndrome characterized by kidneys inability to no longer execute its main functions such as to excrete metabolic waste products

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and toxins, to maintain precisely the water balance in the body, play a role as produtor of hormones, erythropoietin, and others (Alves et al., 2016; Smeltzer et al., 2006). Hemodialysis is a dialysis model in which the patient blood flows through extracorporeal circulation in order to be filtered across the semipermeable membrane, removing excessive body fluid volume, metabolic waste products, including: urea, creatinine, besides electrolytes (Costa et al., 2015). Recent Brazilian Society of Nephrology census has shown that in Brazil there

are registered 758 dialysis centers. The CKD and dialysis lead to a sequence of situations, which affect not only physical aspect, but psychological, including family impact, social and personal changes. For this reason, nurses play an essential role attending and continuously monitoring patients undergoing dialysis, being able to intervene if necessary, avoiding complications through early detection of possible abnormalities (Alves *et al.*, 2016). Research focused on nursing care for patients with CKD justify itself because it is a world and Brazilian major health problem, extremely important subject due to its high rates of morbidity and mortality (Xavier *et al.*, 2014). Epidemiological data reveal that hemodialysis makes possible 1,200,000 people survival around the world. According to the Brazilian Society of Nephrology (2017), in Brazil there are 126,000 patients in a renal replacement therapy. From those, more than 90% are in hemodialysis (Sesso *et al.*, 2017). Moreover, studies point out progressive increase in the estimated number of patients in dialysis over the years, 42,695 patients in 2000, 91,314 patients in 2010-2011, alarming rates for global scientific community. It is well established that for each patient in hemodialysis there are about twenty or thirty others with CKD in different stages (Cherchiglia *et al.*, 2010. Zambonato *et al.*, 2008. Neves *et al.*, 2012. Frazão *et al.*, 2009, SBN 2016). As noted above, it is crucial to deepen the knowledge about nursing care toward patients with CKD on hemodialysis, reviewing current scientific publications available and obtaining tools to discuss main nursing interventions regarding the subject proposed by authors. Thus, this paper aims to synthesize knowledge produced on national scientific literature, approaching nursing care to patients with CKD in hemodialysis.

MATERIALS AND METHODS

This is an integrative review of literature, with qualitative approach, having as purpose to gather and synthesize scientific knowledge produced concerning the theme investigated and to summarize available evidences and its incorporation on clinical practice in order to obtain a complete comprehension from the studied phenomenon (Sociedade Brasileira de Nefrologia, 2016). The study has been developed according to six stages of integrative review's elaboration, as follows: formulate guiding question; establish review purposes and inclusion and exclusion criteria; define data extraction from studies; select literature articles; analyse results; discuss findings; and present of the review (Cherchiglia *et al.*, 2010).

The guiding question was: what are the nursing care to patients with CKD on hemodialysis? To trace published studies a search was undertaken in the following electronic databases: Latin-American and Caribbean Health Sciences Literature (LILACS), Database of Nursing (BDENF), Medical Literature Analysis and Retrieval System on-line (Medline) and Scientific Electronic Library Online (SciELO), using terms identified of Health Sciences Descriptors (DeCS) in multiple search strategy: "Nursing care", "Chronic Kidney Failure", "Hemodialysis", "Nursing care AND Chronic Kidney Failure", "Nursing care AND Hemodialysis", "Nursing care AND Chronic Kidney Failure AND Hemodialysis", isolated and combined through boolean operator "AND". Free full-text articles in Portuguese, English and Spanish language, published from 2012 were included. Articles in editorials or letter to editor, integrative reviews, duplicate records, dissertations and theses were excluded. The research was carried out in January 2017. The search results are shown in Figure 1.

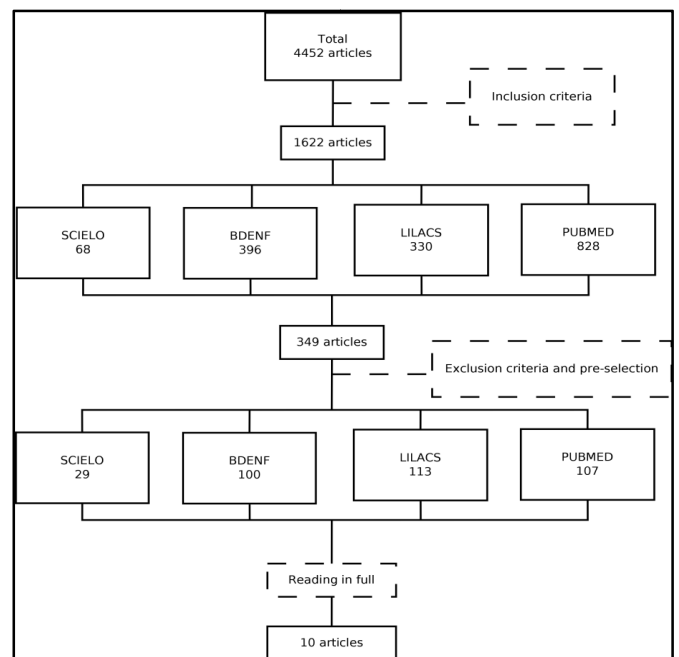


Figure 1. Flowchart

Flow chart

The article's review was performed in three stages and if they did not meet the guiding question and the inclusion criteria, they did not pass for the following stage. Title and abstracts were analyzed in the first stage; methods, results and conclusions were highlighted in the second stage; and the reading in full of the selected articles was the last stage. This process resulted a sample of ten articles, which two were sourced from LILACS, five from BDENF, and three from SciELO. The data elements extracted were author(s), year of publication, study design, and level of evidence (Table 1). This paper encompassed Evidence-Based Practice (EBP), which highlights research use to clinical decision-making and demands skills learning to apply different process to assess the literature in a reflexive and critically approach (Pereira *et al.*, 2014). Next, data analysis was done in compliance with the classification proposal of seven levels to appraise evidences, namely, level I- evidence from a systematic review or meta-analysis of all relevant randomized controlled trial or evidence-based clinical practice guidelines based on systematic reviews of randomized controlled trials; level II- evidence obtained from at least one well-designed randomized controlled trail; level III- evidence obtained from well-designed controlled trials without randomization; level IV- evidence from well-designed case-control or cohort studies; level V- evidence from systematic reviews of descriptive and qualitative studies; level VI- evidence from a single descriptive or qualitative study; level VII- evidence from the opinion of authorities and/or reports of expert committees (Zambonato *et al.*, 2008). It's noteworthy that authors has been properly referenced, considering ethical rigour about intellectual property from the scientific texts analyzed, in respect to content use and citation of searched publications.

RESULTS AND DISCUSSION

The sample consisted of ten studies, after screening and exhaustive analysis of selected articles, those are listed in Table 1.

Table 1. Overview of identified studies by authors, publication year, database, study design and level of evidence. Imperatriz/MA, Brasil 2017

Article	Authors	Publication year	Database	Study design	Level of evidence
1	Pennaftort, Queiroz, Jorge	2012	LILACS	Quantitativeandethnographic/	VI
2	Oller, Ribeiro, Travagim, Batista, Marques, Kusumota	2012	BDENF	Descriptive-Exploratory/	VI
3	Sousa	2012	SCIELO	Descriptive-Exploratory/	VI
4	Abreu, Santos	2013	BDENF	Descriptive-Cross-sectional/	VI
5	Moreira, Araújo, Torchi	2013	BDENF	Descriptive-Exploratory/ Quantitative	VI
6	Espinoza-Soto, Jimenez-Moreno, Salazar-Calderón, Silva-Mathews	2013	LILACS	Quasi-experimental/	VI
7	Pereira, Ribeiro, Ruas, Silva, Gonçalves, Diamantino	2014	BDENF	Descriptive-Exploratory/	VI
8	Frazão, Medeiros, Lima e Silva, Sá, Lira	2014	SCIELO	Descriptive-Cross-sectional/	VI
9	Tejada-Tayabas, Partida-Ponte, Hernandez-Ibarra	2015	BDENF	EthnographicandQualitative/	VI
10	Guimarães, Gouveia, Mendoza, Souza, Guimarães, Matos	2016	SCIELO	Descriptive-Exploratory/	VI

Results had shown that majority of articles (80%) has been performed by Post Graduation programs. Southeastern federal universities published 50% of all, it confirms the expressive productivity of universities in this country region, where there are more funding to accomplish research in Brazil (Neves *et al.*, 2012). While studies were graded, it was found that all of them were on level VI, establishing low level of evidence. Papers results with this evidence strength have lower rate of recommendation to be applied in professional practice, if compared to randomized controlled trials (Frazão *et al.*, 2009). However, such studies contribute to reflexive process in nursing care, generating considerable interest to adopt new practices, in spite of the demand for more research in this area to provide care improvement. Once evidence grading was done, articles analyzed were classified in the theme nursing care in hemodialysis setting, which contains studies holding nursing care importance, in line with family, as vital in treatment, health care, improvement of life quality, and anxiety reduction, establishing integral assistance to CKD patients undergoing hemodialysis.

Anxiety is often reported by CKD patients in hemodialysis, intervening family relationship and also entails hardships in daily life (Espinoza-Soto *et al.*, 2010). Notably, nurses accounts for hemodialysis treatment, once that they remains with the patient during the whole process, establishing a bond when playing their functions (Espinoza-Soto *et al.*, 2010). Effective communication between health workers and patients is essential to provide continuous and proper care, also ameliorating anxiety (Moreira *et al.*, 2013). Therefore, family support is one impact point related to anxiety and patient outcomes, because is an important cornerstone to integral care, without it and the family active involvement will be difficult achieve therapeutic purposes (Espinoza-Soto *et al.*, 2010). Nursing care intend to promote patient's functional independence, since hemodialysis includes time restrictions, physical and psychological limitations, among other alterations that interfere in daily activities (Oller *et al.*, 2012). Nevertheless, authors remarks that nursing care is challenging, due to the disease complexity and how it is coped by patients and their family members, beyond that care mainly is assigned as nurses responsibility. (Tayabas-Tejada *et al.*, 2015). In addition, teenagers and children patients often experience fear and isolation attributed to complex procedures and routines which requires from nurses better comprehension in order to adequately care for them. Nurses should articulate knowledge allowing care affective and cognitively, considering subjectivity through educational therapy practices and

professionals-patient-family engagement (Pennaftort *et al.*, 2012). In a like manner, nursing interventions go beyond its technical character and include common knowledge of patients and professional knowledge through listening and active involvement of subjects (Pennaftort *et al.*, 2012). Others researchers emphasize that CKD patients treatment is not only to promote survival, but also to enhance rehabilitation (Abreuet *et al.*, 2013). Nursing staff should be vigilant to complications in CKD patients, in order to effectively intervene during treatment, as well as contribute with quality nursing assistance to them (Pereira *et al.*, 2014). This assistance should disrupt with the predominant health model in hemodialysis settings, which is the biological model, evidenced by cartesian biomedical paradigm, focused on medical science and technologies (Guimarães *et al.*, 2016). Overcome biomedical model inherited, will afford nurses awareness to acknowledge subjective dimension of patients, allowing them identify nursing problems based on human basic needs (Guimarães *et al.*, 2016).

Conclusion

The evidence from this study implies that nurses play an extremely relevant role on CKD patients treatment leading to effective therapy. The engagement between professional-patient-family worth mentioning because it constitutes a key instrument for continuous nursing care and positively transforms health recovery process. This essay findings unravelled dominant perspective of biomedical model in nurses attitudes. It states an insight change need of nurses in the dialysis department, acknowledging subjective dimension of client, pointing to humanizing and supportive care. This report has some limitations, the most important lies in the fact that sample size was small, also in the low level of scientific evidence from selected articles. In accordance with the present results, further review studies is encouraged to approach work tools of nurses for CKD patient assistance such as protocols, procedures and nursing process forms enhancing the quality of care.

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