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NANDA-I NURSING DIAGNOSES FOR CHRONIC KIDNEY PATIENTS ON HEMODIALYSIS: SCOPE REVIEW

DIAGNÓSTICOS DE ENFERMAGEM DA NANDA-I PARA PESSOAS RENAIS CRÔNICAS EM HEMODIÁLISE: REVISÃO DE ESCOPO

DIAGNÓSTICOS DE ENFERMERÍA DE LA NANDA-I PARA PERSONAS RENALES CRÓNICAS EN HEMODIÁLISIS: REVISIÓN DE ALCANCE

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Objective: to map the Nursing Diagnoses of the NANDA-I taxonomy validated for chronic kidney disease patients undergoing hemodialysis. Method: scope review recorded in the Open Science Framework, guided by the JBI method and guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews. The searches were performed in the Medical Literature Analysis and Retrieval System, Cumulative Index to Nursing and Allied Health Literature, among others, besides the gray literature. Data analyzed descriptively. There was no temporal or idiomatic cut. Results: 12 studies were identified with 6 validated Nursing Diagnoses for chronic kidney disease patients undergoing hemodialysis: excessive volume of fluids, ineffective protection, ineffective health self-management, impaired spirituality, willingness to improve hope and hypothermia. Conclusion: the mapping of Nursing Diagnoses of the NANDA-I taxonomy showed that the quality of the nursing process tends to improve when nursing diagnoses are validated, giving greater reliability and safety to clinical practice.

Descriptors: Nursing Diagnosis. Nursing Process. Renal Insufficiency, Chronic. Kidney Failure, Chronic. Renal Dialysis.

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Objetivo: mapear os Diagnósticos de Enfermagem da taxonomia NANDA-I validados para pacientes renais crônicos submetidos a hemodiálise. Método: revisão de escopo registrada no Open Science Framework, guiada pelo método JBI e norteada pelo Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews. As buscas foram realizadas nas bases Medical Literature Analysis and Retrievel System, Cummulative Index to Nursing and Allied Health Literature, entre outras, além da literatura cinzenta. Dados analisados descritivamente. Não houve recorte temporal ou idiomático. Resultados: identificados 12 estudos com 6 Diagnósticos de Enfermagem validados para pacientes renais crônicos submetidos a hemodiálise: volume de líquidos excessivo, proteção ineficaz, autogestão ineficaz da saúde, espiritualidade prejudicada, disposição para melhora da esperança e hipotermia. Conclusão: o mapeamento dos Diagnósticos de Enfermagem da taxonomia NANDA-I mostrou que a qualidade do processo de enfermagem tende a melhorar, quando diagnósticos de enfermagem são validados, conferindo maior confiabilidade e segurança à prática clínica.

Descritores: Diagnóstico de Enfermagem. Processo de Enfermagem. Insuficiência Renal Crônica. Falência Renal Crônica. Diálise Renal.

Objetivo: mapear los Diagnósticos de Enfermería de la taxonomía NANDA-I validados para pacientes renales crónicos sometidos a hemodiálisis. Método: Revisión de ámbito registrada en el Open Science Framework, guiada por el método JBI y guiada por el Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews. Las búsquedas fueron realizadas en las bases Medical Literature Analysis and Retrieval System, Cumulative Index to Nursing and Allied Health Literature, entre otras, además de la literatura gris. Datos analizados descriptivamente. No hubo recorte temporal o idiomático. Resultados: identificados 12 estudios con 6 Diagnósticos de Enfermería validados para pacientes renales crónicos sometidos a hemodiálisis: volumen de líquidos excesivo, protección ineficaz, autogestión ineficaz de la salud, espiritualidad perjudicada, disposición para mejorar la esperanza y la hipotermia. Conclusión: el mapeo de los Diagnósticos de Enfermería de la taxonomía NANDA-I mostró que la calidad del proceso de enfermería tiende a mejorar, cuando diagnósticos de enfermería son validados, confiriendo mayor confiabilidad y seguridad a la práctica clínica.

Descriptores: Diagnóstico de Enfermería. Proceso de Enfermería. Insuficiencia Renal Crónica. Fallo Renal Crónico. Diálisis Renal.

Introduction

Chronic kidney disease (CKD) is a global public health problem. Thus, it fits the scope of pathologies for which the World Health Organization (WHO) expects to reduce premature deaths by one third by 2030, which requires an interdisciplinary effort in caring for these patients[1].

Population screening studies on Chronic Kidney Disease showed that more than 10% of the population of the countries surveyed contained markers of kidney injury with a worldwide prevalence of 9.7% in 2017. The global estimate for 2022 is that it reaches 2.5 million people in renal replacement therapy, with projections of 5.4 million by 2030[2].

The Brazilian Society of Nephrology, in the dialysis census of the year 2020, presented a perspective for the situation of chronic kidney disease and its impact on the health system in Brazil. From 2001 to 2020, the number of patients undergoing renal replacement therapy tripled (from 46,577 to 144,779) and will continue to increase in the coming years. Currently, in the Brazilian reality, more than 90% of these patients are in the therapeutic modality of hemodialysis[3].

Regarding the number of patients in renal replacement therapy, Brazil ranks third, behind China and India. The Brazilian Unified Health System (UHS) is responsible for funding this treatment in 80% of cases. For the care of these patients, dialysis centers must have a multidisciplinary team composed of a specialized nurse, nutritionist, psychologist, nursing technician, social worker and nephrologist[2]. A nurse may be responsible for up to 50 patients at each hemodialysis shift.

To care for these patients, nurses apply the nursing process as a scientific method that guides their clinical judgment and actions[4]. According to the theoretical approach used, an

initial evaluation is performed, in which nursing diagnoses, action planning, interventions and the evolution of the entire process are established[5-6].

For the initial evaluation of the patient, the nurse is required an accurate clinical reasoning that allows him/her to properly interpret and give an appropriate label/title to the human response presented by the individual, that is, a Nursing Diagnosis (ND). In the sequence, the planning of the therapy to be implemented also requires decision-making with a view to patient safety[5-6].

The proper use of Nursing Diagnosis implies the use of a standardized language. The classification system of Nursing Diagnoses of NANDA-I is one of the best known and publicized worldwide. Taxonomy is a way of classifying and categorizing areas of interest to nurses. The current version – 2021-2023 – contains 267 Nursing Diagnoses grouped into 13 domains and 47 classes[6].

It is important to highlight that applying adequate scientific knowledge to patients' clinical situations, using defined and valid concepts, is extremely important for clinical practice.

Studies on the validation of Nursing Diagnoses have been developed since the early 1980s[7]. The validity of a diagnosis is the degree to which evidence and theories demonstrate that the diagnosis is the appropriate interpretation for a given clinical use of a given set of manifestations understood as defining characteristics[6].

Knowing the nursing diagnoses already validated for this specific population can help clinical reasoning and judgment, as well as facilitate the registration of the nursing process in hemodialysis clinics. Especially because it will be based on scientific evidence originating from validation studies, both content and clinical.

Based on the above, the following research question was elaborated: Which Nursing Diagnoses of the NANDA-I taxonomy are validated for the chronic kidney disease patient on hemodialysis? This study aims to map the Nursing Diagnoses of the taxonomy NANDA-I validated for chronic kidney disease patients undergoing hemodialysis.

Method

This is a scope review guided by the Joanna Briggs Institute (JBI)[8] method and guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-SCr)[9]. Before its execution, it was found, with the platforms Open Science Framework (OSF) and the repository of JBI itself, that there was no ongoing scope review on the subject. The protocol of this review registered in the Open Science Framework (OSF) received the number 10.17605/OSF.IO/5GFTA[10], but it was not published in specialized journals.

For the research question, the acronym PCC (Population, Concept and Context) was used. P – Adult chronic kidney disease patients undergoing hemodialysis, C – Validated Nursing Diagnoses of NANDA-I taxonomy for chronic kidney disease patients undergoing hemodialysis and C – Hemodialysis in chronic patients. Inclusion criteria: studies in patients older than 18 years of both sexes; that deal with some of the main validation models for NANDA-I Nursing Diagnoses, such as content validation, clinical and/or differential diagnosis[11], methods related to causal, content and clinical theoretical validity[7]; and that addressed hemodialysis as renal replacement therapy. Exclusion criteria: studies in pregnant women; that verified the occurrence/prevalence of Nursing Diagnoses, as well as those that addressed other standardized language systems; and cared for patients with acute renal injury.

The search was developed in three stages, with the help of a specialized librarian, as recommended by the JBI. In the first, the terms in the controlled vocabularies were selected: Health Sciences Descriptors (DeCS) through the Regional Portal of the Virtual Health Library, Medical Subject Headings (MESH) through the PubMed and Emtree (Embase Subject Headings) database. In this step, a preliminary search in the PubMed database was performed only with the aim of broadening the scope of terms that could enter the final search strategy, in order to ensure the scope required for a scope review.

The second stage consisted of applying the search strategy defined and adjusted for each database. There was no temporal or idiomatic cut. The searches were initiated and finalized in July 2022, in the reference and gray literature databases of the information portals: Latin American and Caribbean Health Sciences Literature (LILACS), Índice *Bibliográfico Español en Ciencias de la Salud* (IBECS), National Library of Medicine (NLM), Medical Literature Analysis and Retrieval System Online (MEDLINE), PubMed Central (PMC). In the Capes Periodicals Portal, the following databases were used: Elsevier - Embase and Scopus, Clarivate Analytics: Web of Science; EBSCO: Cummulative Index to Nursing and Allied Health Literature (CINAHL), Academic Source and Health Business. The Scientific Electronic Library Online (SciELO), Metabuscador Epistemonikos (Evidence-Based Health Care, information Technologies and a network of experts), the Cochrane Library and the integrative and grey literature portal Science. Gov: USA.gov.

As an example, the search strategy used in PubMED was: ("Nursing Diagnosis"[mh] OR "Nursing Diagnosis"[tiab] OR "Nursing Diagnoses"[tiab] OR "Nanda International"[tiab] OR "Nanda- I"[tiab] OR "NANDA I"[tiab] OR NANDA[tiab] OR "North American nursing diagnosis association"[tiab] OR "NANDA classification"[tiab] OR "NANDA diagnoses"[tiab] OR "NANDA diagnosis" [tiab] OR "NANDA taxonomy"[tiab] OR "NANDA terminology"[tiab] OR ("Standardized Nursing Terminology"[mh] OR Terminologie*[tiab] OR "ICNP Terminology"[tiab] OR Terminology[tiab] OR " International Classification for Nursing"[tiab] OR "Nursing Terminologies"[tiab] OR "Nursing Terminology"[tiab]) AND (Diagnosis[mh] OR Diagnosis[tiab] OR Diagnose*[tiab]) AND ("Renal Dialysis"[mh] OR "Extracorporeal Dialyses"[tiab] OR "Extracorporeal Dialysis"[tiab] OR Hemodialyse*[tiab] OR Hemodialysis[tiab] OR "Renal Dialyses"[tiab] OR Dialyse*[tiab] OR Dialysis[tiab] OR " Extracorporeal blood cleansing"[tiab] OR Hemorenodialysis[tiab] OR Hemodialytic[tiab] OR "Renal Replacement Therapy"[Majr] OR "Renal Replacement Therapies"[tiab] OR "Kidney Replacement Therapies"[tiab] OR "Kidney Replacement Therapy" [tiab] OR "Renal Insufficiency, Chronic"[mh] OR "Chronic Kidney Disease"[tiab] OR "Chronic Kidney Diseases"[tiab] OR "Chronic Kidney Insufficiency"[tiab] OR "Chronic Kidney Disease"[tiab] OR "Chronic Renal Diseases"[tiab] OR "Chronic Renal Insufficiencies"[tiab] OR "Chronic Renal Insufficiency"[tiab]).

In the third stage, a manual search was performed in the reference lists of the selected articles in order to identify other relevant studies that had not been reached by electronic search in the databases. The selection of studies followed the sequence of evaluation of titles, abstracts and texts in full. The search results were imported into the EndNote reference manager and exported, after excluding duplications, to the Rayyan application, from the Qatar Computing Research Institute.

Subsequently, the titles and abstracts were read. The exclusion reasons were described, according to the acronym PCC. Then, the selected articles were read in full by two independent evaluators. There was no disagreement between them in the selection of articles that made up the final sample. To control the recovered documents, an excel spreadsheet was elaborated with document description data and links generated by Rayyan.

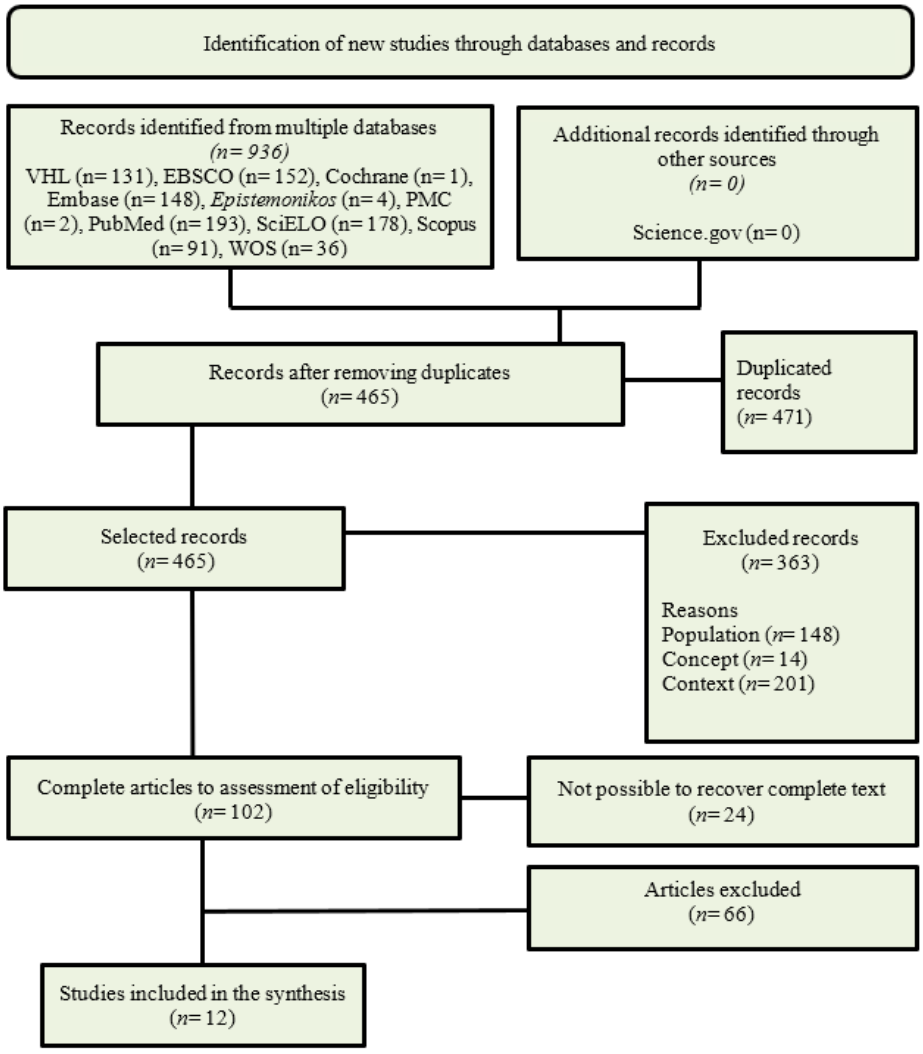
For data extraction, an Excel spreadsheet was used, containing the information: author, year, title, country, method, data analysis and results achieved. A descriptive analysis of the selected articles was performed. Within the results of the studies, the validated nursing diagnoses were sought, as well as the types of validation and the level of evidence corresponding to the diagnoses in the taxonomy of NANDA-I.

Results

936 articles were found, of which 471 were excluded due to duplication by EndNote. After evaluation of title and abstract, 102 articles were selected for full reading. Twelve studies were chosen because they presented validation of nursing diagnoses of the taxonomy of

NANDA-I for chronic kidney disease patients on hemodialysis. The PRISMA-ScR[9] flowchart demonstrates the totality of the bibliographic searches and the process of selection and final inclusion of the studies (Figure 1).

Figure 1 – Flowchart of searches carried out to select studies according to the PRISMA-ScR guidelines



Source: created by the authors based on Page et al[9].

The final study sample consisted of 12 articles, one of which was conducted in Japan and the others in Brazil, with prevalence of studies in the Northeast of the country. As for the design, there was a bibliographic study, integrative review type, of conceptual definition, four of content validity by specialists and seven related to clinical validity, with predominance of studies of diagnostic accuracy. The methods of validation of nursing diagnoses present in the studies were those related to conceptual validity, content validity and clinical validity[7-11].

Among the selected articles, six nursing diagnoses validated for chronic kidney disease patients undergoing hemodialysis were identified. Chart 1 presents the validated NANDA-I Nursing Diagnoses for chronic kidney disease patients undergoing hemodialysis identified in this review, according to author, year, design, outcome/result of the studies and levels of evidence according to NANDA-I[12].

Chart 1 – NANDA-I Nursing Diagnoses validated for chronic kidney disease patients undergoing hemodialysis identified in this review, according to author/year of publication, study design and outcome/result, and levels of evidence according to NANDA-I (continued)

Validated Nursing Diagnosis	Author/Year	Study design	Outcome/Result	*NANDA-I level of evidence[12]
Excessive fluid volume code-00026	Botelho, Costa, Zuchatti and Duran – 2019[13]	Conceptual validation	Conceptual definitions of the elements were constructed in the context of chronic kidney disease patients	3.3. Well-designed clinical studies with small samples
	Botelho, Correia, Ribeiro, Ferreira and Duran – 2022[14]	Content validation	27 of the 30 components of the Nursing Diagnoses studied were validated regarding their relationship with the patient with CKD. Regarding the relevance, clarity and precision of their definitions, 29 elements were validated.	
	Fernandes, Bispo, Leite, Lopes, Silva and Lira – 2015[15]	Clinical validation	The most precise defining characteristics, considered valid for inferring Nursing Diagnoses excessive fluid volume were: edema, pulmonary congestion, adventitious respiratory sounds and restlessness	
	Botelho, Correia, Manzoli, Montanri, Carvalho and Duran – 2021[16]	Clinical validation	The construction of the classification tree made it possible to quantify the probability of occurrence of the Nursing Diagnosis excessive fluid volume (00026) in the studied population and the elements "excessive sodium intake" and "intake greater than elimination" were considered predictors of the referred diagnosis in the sample	
Ineffective protection code-00043	Capellari, Almeida – 2008[17]	Content validation	It was concluded from this study that the main indicators of this Nursing Diagnosis were related to chronic kidney disease and could lead to ineffective protection in subjects undergoing hemodialysis	3.2. Clinical studies related to diagnosis, but not generalizable to the population
	Tinôco – 2015[18]	Clinical validation	The defining characteristics prevalent in the studied population were: fatigue, poorly adapted response to stress, changes in coagulation, fever, increased number of hospitalizations, weakness, infected vascular access and vascular access dysfunction.	

Chart 1 – NANDA-I Nursing Diagnoses validated for chronic kidney disease patients undergoing hemodialysis identified in this review, according to author/year of publication, study design and outcome/result, and levels of evidence according to NANDA-I (continued)

Validated Nursing Diagnosis	Author/Year	Study design	Outcome/Result	*NANDA-I level of evidence[12]
Ineffective health self-management code-00276	Kamiya, Honda, Kasaoka, Egawa, Yada and Miyawaki – 2012[19]	Content validation	Experts noted four signs of unmaintained fluid and dietary restrictions as the main defining characteristics of this Nursing Diagnosis. Health behavior symptoms were considered as the main clues for the Nursing Diagnosis of ineffective liquid self-management and dietary restrictions in dialysis therapy	3.3. Well-designed clinical studies with small samples
	Paiva, Tinôco, Silva, Dantas, Lopes and Lira – 2017[20]	Content validation	The experts considered the proposed definition and current location in NANDA-I taxonomy II, health promotion in Domain 1, health control in class 2, as adequate for the diagnosis. The level of adequacy adopted was greater than 85% or $p > 0.05$ for 10 defining characteristics and 24 related factors	
	Paiva, Tinôco, Fernandes, Dantas, Nogueira, Medeiro et al. – 2019[21]	Clinical validation	The most precise clinical indicators identified in this study were: express non-adherence to treatment, ineffective daily life choices to achieve health goals, expression of difficulty with therapeutic regimens, inappropriate use of medications, lack of expression of desire to control the disease, irregular attendance of dialysis sessions and infection	
Impaired spirituality code-00169	Chave, Carvalho, Terra and Souza – 2010[22]	Clinical validation	It was found that the most frequent defining characteristics in this population were: expressing behavioral changes – anger, being unable to express creativity, questioning suffering and expressing alienation	2.1. Nursing Diagnosis accepted for publication and inclusion in the taxonomy (title, definition, defining characteristics and related or risk factors and literature)

Chart 1 – NANDA-I Nursing Diagnoses validated for chronic kidney disease patients undergoing hemodialysis identified in this review, according to author/year of publication, study design and outcome/result, and levels of evidence according to NANDA-I (conclusion)

Validated Nursing Diagnosis	Author/Year	Study design	Outcome/Result	*NANDA-I level of evidence[12]
Provision for improvement of hope code-00185	Silva, Melo, Caetano, Lopes, Butcher and Silva – 2017[23]	Clinical validation	The defining characteristics "Expresses the desire to intensify coherence between expectations and desires" and "Expresses the desire to reinforce problem solving to achieve goals" presented good accuracy measures in the sample studied.	3.2. Clinical studies related to diagnosis, but not generalizable to the population
Hypothermia code-00006	Damasceno, Cavalcante, Ferreira, Barbosa, Moreira, Lopes et al. – 2022[24]	Clinical validation	The most prevalent defining characteristics in patients with kidney disease on hemodialysis were hypoxia, reduced blood glucose, hypertension, piloerection and cold skin to the touch. The defining characteristics acrocyanosis and cyanotic nail beds showed high sensitivity. Acrocyanosis, cold skin to the touch and peripheral vasoconstriction showed high specificity	2.2. Conceptual analysis

Source: created by the authors.

* The levels of evidence for nursing diagnoses presented in the NANDA-I 2021-2023[6] classification correspond to the levels brought in the 2018-2020 version[12].

Discussion

The evolution of scientific language is characterized by a continuous process. In the case of NANDA-I classification, to improve the clinical usability of diagnoses, with each new edition, diagnoses can be removed or added to the terminology, as with their diagnostic indicators at each review, depending on the improvement of the taxonomic structure[6].

The studies related to nursing diagnosis Ineffective Health Control (00078) were developed in 2017 and 2019, related to content validity and clinical validity, respectively. However, this diagnosis underwent a title change in the 2021-2023 version of NANDA-I, being approved in 2020 with the title Ineffective Health Self-Management (00276), remaining in Domain 1, health promotion, class 2, health control, with the following definition: unsatisfactory management of symptoms, treatment regimen, physical, psychosocial, spiritual consequences, and lifestyle changes inherent in living with a chronic condition[6].

Chronic kidney disease patients on hemodialysis who do not adhere to treatment may develop unfavorably and compromise their state of health. This non-adherence involves absences in hemodialysis sessions, inadequate intake of fluids, nutrients and medicines, as demonstrated by a study of diagnostic accuracy of this diagnosis, with an estimated prevalence of 66.28%[21].

The title Ineffective Protection (00043) was included in the taxonomy of NANDA-I as Nursing Diagnosis in 1990. Reviewed in 2017

and 2020, its definition is: decreased ability to protect oneself from internal or external threats, such as diseases or injuries. It is in Domain 1, health promotion, class 2, health control[6].

Factors related to patients undergoing hemodialysis may be present due to the specific manifestations of chronic kidney disease and dialysis treatment, as occurs with anemia associated with the decrease or absence of erythropoietin production[17]. Adequate protection results in reduced complications and improved quality of life for patients. Studies reinforce the importance of planning appropriate health promotion and protection actions in this population[25]. The frequency of the Ineffective Protection nursing diagnosis was about 60.5% in a group of 200 patients undergoing hemodialysis[18].

The nursing diagnosis Excessive Fluid Volume (00026), approved and included in NANDA-I in 1982, reviewed in 1996, 2013, 2017 and 2020, is defined as excessive fluid retention, belongs to Domain 2, nutrition, and class 5, hydration[6]. This diagnosis is attributed to excessive fluid intake in non-compliance with the water restriction imposed, given the patient's inability to excrete liquids[14]. Concerning prevalence, it was identified, in a sample of 100 patients undergoing hemodialysis, the presence of this nursing diagnosis in 82%[15].

Fluid overload is associated with increased risk of mortality from cardiovascular causes in patients with chronic kidney disease. Excess fluid can aggravate heart and lung problems and may be the precursor agent for the development of some diseases, such as heart failure and pulmonary edema[26]. Therefore, patients with the nursing diagnosis Excessive Fluid Volume necessarily present the nursing diagnosis Ineffective Health Self-Management.

The diagnostic title Provision for Improved Hope (00185) is defined in NANDA-I, version 2021-2023, as a pattern of expectations and desires to mobilize energies to achieve positive results or avoid a potentially threatening or negative situation, which can be strengthened. It belongs to Domain 6, of self-perception, and Class 1, of self-concept. It was approved in 2006, reviewed in 2013 and 2020[6].

This diagnosis was present in about 82%, in a sample of 66 chronic kidney disease patients undergoing hemodialysis treatment. It is worth emphasizing the importance of nurses reinforcing the perception of meaning of life in patients, in order to strengthen personal growth and the construction of relationships over the years of treatment, whether with professionals, in the place of dialysis therapy, either with their peers[23].

The nursing diagnosis Impaired Religiosity (00169), described in NANDA-I version 2021-2023, was approved in 2004, reviewed in 2017. It has as definition impaired ability to trust beliefs and/or participate in rituals of some religious faith. It belongs to Dominion 10, principles of life, class 3, coherence between values, belief, acts[6].

In a group of 120 patients with chronic kidney disease undergoing hemodialysis, the prevalence of 27.5% of the nursing diagnosis was identified as impaired spirituality[22]. In this sense, it is important for nurses to take into account the patient's judgment about his/her spirituality, as well as to use instruments appropriate to the diagnostic elaboration process, such as the scale of spirituality of Pinto and Pais-Ribeiro and the subscale of existential well-being, for evaluation in clinical practice[27].

Hypothermia (00006) is the central body temperature below the normal daytime parameters in individuals with >28 days of life, due to the failure in thermoregulation. It was approved and included in the taxonomy of NANDA-I in 1986 and reviewed in 1988, 2013, 2017 and 2020. It belongs to Domain 11, safety/ protection, class 6, thermoregulation[6]. Recent data from clinical validation studies showed an incidence of 10.48%, but there are publications that show a value greater than 60% and high prevalence[24].

Although it can be considered an adaptive phenomenon, hypothermia is an important condition and can cause serious problems in patients on hemodialysis. Therefore, it must

be identified and resolved early and quickly. Thus, it reinforces the importance of nurses to recognize nursing diagnoses, as well as their defining characteristics, which provide a safe, timely and preventive intervention of major complications[24].

In line with the results obtained, it was found, in a study whose sample consisted of 178 patients, the presence of 14 nursing diagnoses of NANDA-I frequent in individuals on hemodialysis: excessive fluid volume (99%), hypothermia (61%), ineffective self-control of health (42%), fatigue (42%), impaired dentition (38%), impaired physical mobility (35%), sexual dysfunction (28%), insomnia (25%), poor knowledge (18%), chronic pain (15%), low situational self-esteem (12%), ineffective protection (12%), deficit in self-care for dressing (11%) and acute pain (11%). It is emphasized that the three most incident nursing diagnoses in this study have content and clinical validation, as well as the nursing diagnosis Ineffective Protection, as presented in this scope review[28].

The above corroborates the importance of validation studies of nursing diagnoses in this population. The nurse, as a member of the health team responsible for the closest and longest care, can identify potentially threatening situations early and intervene in the perspective of improving the health of patients. In addition, he/she can promote educational activities that address effective self-care measures in the management of chronic kidney disease and hemodialysis.

Thus, it is noticed that the strengthening of the levels of evidence of the classification becomes essential for the development of good nursing practices that provide adequate subsidies for early clinical judgment and effective interventions for safe care based on scientific evidence.

Among the limitations of this research, it is noteworthy that the validation studies of nursing diagnoses of NANDA-I presented did not allow a comparison between them, because they are different diagnoses and validations in different stages and methods.

Knowledge of nursing diagnoses validated for specific populations favors best practices, since studies of this nature help in clinical reasoning. Individualizing care generates more effective results and improves the quality of life of patients assisted. Research that provides foundation for accurate diagnostic inferences enables nursing care directed to the priority needs of patients, as well as creates nursing process forms with the diagnoses and their contents validated for chronic kidney disease patients on hemodialysis.

Final Considerations

The present study allowed the mapping of the scientific evidence on the Nursing Diagnoses of the taxonomy of NANDA-I validated for chronic kidney disease patients undergoing hemodialysis: ineffective protection, ineffective health self-management, excessive fluid volume, willingness to improved hope, impaired religiosity and hypothermia. Such validated diagnoses are relevant to clinical practice, because they are also referenced in incidence and prevalence studies, as well as other nursing diagnoses that lack diagnostic validation in this population. The mapping of Nursing Diagnoses of NANDA-I taxonomy showed that the quality of the nursing process tends to improve when nursing diagnoses are validated, which also gives greater reliability and safety to clinical practice.

Collaborations:

1 – conception and planning of the project: Tais Lobo Lisboa Rebouças, Silvia Maria de Sá Basílio Lins, Shimmenes Kamacael Pereira and Monique Coutinho da Silva Menezes de Paula;

2 – analysis and interpretation of d: Tais Lobo Lisboa Rebouças, Silvia Maria de Sá Basílio Lins, Joyce Martins Arimatea Branco Tavares, Shimmenes Kamacael Pereira and Luciana Guimarães Assad;

3 – writing and/or critical review: Silvia Maria de Sá Basílio Lins and Rosimere Ferreira Santana;

4 – approval of the final version: Tais Lobo Lisboa Rebouças, Silvia Maria de Sá Basílio

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Competing interests

There were no competing interests.

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