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ORIGINAL ARTICLE

CONCEPTUAL DEFINITION OF THE EXCESSIVE LIQUID VOLUME NURSING DIAGNOSIS (00026)*

DEFINIÇÃO CONCEITUAL DO DIAGNÓSTICO DE ENFERMAGEM VOLUME DE LÍQUIDO EXCESSIVO (00026)

DEFINICIÓN CONCEPTUAL DEL DIAGNÓSTICO DE ENFERMERÍA VOLUMEN DE LÍQUIDO EXCESIVO (00026)
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ABSTRACT

Objective: to construct the conceptual definitions of the components of the Nursing Diagnosis "Excessive Liquid Volume (00026)". Method: this is a bibliographic study, integrative review, between 2012 and 2016 in the databases MEDLINE, CINAHL and Web of Science. The PRISMA flowchart was used for identification, selection, eligibility and inclusion of studies. Data analysis was performed through thorough reading and understanding of elements that supported the elaboration of definitions. Results: 2,477 articles were found, 21 selected. One searched the gray literature, totaling 33 items. Conceptual definitions of the elements were constructed in the context of chronic renal patients. Conclusion: it will help, by the constructed definitions, in the recognition of the indicators that compose the phenomenon and in the planning of individualized care. In addition, the use of standardized languages, communication, patient safety and teaching. Descriptors: Nursing Classifications; Nursing Diagnosis; Nursing Process; Renal Insufficiency; Nursing; Validation Studies.

RESUMO

Objetivo: construir as definições conceituais dos componentes do Diagnóstico de Enfermagem "Volume de Líquido Excessivo (00026)". *Método*: trata-se de um estudo bibliográfico, tipo revisão integrativa, entre 2012 e 2016 nas bases de dados MEDLINE, CINAHL e *Web of Science*. Utilizou-se o fluxograma PRISMA para identificação, seleção, elegibilidade e inclusão dos estudos. Deu-se a análise dos dados a partir de leitura minuciosa e compreensão de elementos que subsidiaram a elaboração das definições. *Resultados*: encontraram-se 2.477 artigos, sendo 21 selecionados. Realizou-se a busca na literatura cinzenta, totalizando 33 itens. Construíram-se as definições conceituais dos elementos no contexto dos pacientes renais crônicos. *Conclusão*: auxiliar-se-á, pelas definições construídas, no reconhecimento dos indicadores que compõem o fenômeno e no planejamento do cuidado individualizado. Favorecem-se, além disso, a utilização de linguagens padronizadas, a comunicação, a segurança do paciente e o ensino. *Descritores*: Classificações de Enfermagem; Diagnóstico de Enfermagem; Processo de Enfermagem; Insuficiência Renal; Enfermagem; Estudos de Validação.

RESUMEN

Objetivo: construir las definiciones conceptuales de los componentes del Diagnóstico de Enfermería "Volumen Líquido Excesivo (00026)". *Método:* estudio bibliográfico, revisión integradora, entre 2012 y 2016 en las bases de datos MEDLINE, CINAHL y *Web of Science*. El diagrama de flujo PRISMA se utilizó para la identificación, selección, elegibilidad e inclusión de estudios. El análisis de datos se realizó a través de una lectura exhaustiva y la comprensión de elementos que respaldaron la elaboración de definiciones. *Resultados:* se encontraron 2.477 artículos, 21 seleccionados. Se realizaron búsquedas en la literatura gris, con un total de 33 artículos. Las definiciones conceptuales de los elementos se construyeron en el contexto de pacientes renales crónicos. *Conclusión:* ayudará, por las definiciones construidas, en el reconocimiento de los indicadores que componen el fenómeno y en la planificación de la atención individualizada. Además, se favorece el uso de lenguajes estandarizados, comunicación, seguridad del paciente y enseñanza. *Descriptores:* Clasificaciones de Enfermería; Diagnóstico de Enfermeira; Proceso de Enfermeira; Insuficiencia Renal; Enfermería; Estudios de Validacíon.

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INTRODUCTION

It is known that the Nursing Process (NP) is recognized as the work tool of nurses and it is through this that this professional can plan and implement qualified and effective care. It is informed that, over the years, laws guide the directions of professional practice and, above all, support and support Nursing actions so that the care provided is of quality and, above all, that the expected results are achieved.¹⁻²

It is understood that, in order to favor the practice of nursing work, currently several initiatives subsidize their practice through methodologies that operationalize this process and contribute significantly to the improvement of expected results. It is added that the Standardized Language Systems (SLS) emerged with the intention of standardizing the vocabulary used by nursing, conferring scientific support to the decisions made by nurses, naming the elements of professional practice and assigning legitimacy to the profession, since the phenomena by nurses, which the professional is responsible for, are duly registered and appointed.³

The aim of the various SLS is to favor certain phases of NP, and the joint use of these terminologies enables nursing care in a single language, gives visibility of work and professional recognition, safety in planning and quality for care management.³ By such uniformity of vocabulary, a standardization of patient chart presentation is allowed.

It is believed that, for the Nursing Diagnosis (ND) phase, the classification of NANDA International Nursing Diagnoses (NANDA-I) is the best known and widespread in the various countries of the world.⁴

Among the ND presented by NANDA-I (2018-2020), two domain "nutrition", class five "hydration" stands out, the diagnostic concept Excessive Liquid Volume (00026) defined as "excessive intake and / or fluid retention". ^{5:186} It is a common ND in patients with chronic kidney disease (CKD)⁶⁻⁷ and, knowingly, this human response has negative consequences for the patient's life, both in the subjective and objective spheres, caused by physical, psychological and social changes.⁸

Due to the impairment of regulatory mechanisms, the signs and symptoms that affect the patient's life result as, as the Glomerular Filtration Rate (GFR) decreases, the metabolic, hydroelectrolytic imbalance increases, leading to azotemia and uremia. These patients present numerous signs and symptoms that require nursing care based on the best available scientific evidence. In this context, it is up to the nurse, through the NP, to draw up a therapeutic plan

aimed at solving or minimizing the problems presented by the patients and the imminent risks of severe complications that they may present, safely and effectively through the structured NP.⁷

The signs and symptoms presented by the patients are represented by the Defining Characteristics (DC) that make up each problem-focused ND. It becomes the accurate diagnostic process by the precise identification of these DCs, while a certain inference on the human response that actually reflects the patient's true condition in the environment in which care is provided, giving him the possibility of appropriate treatment.¹⁰

The literature describes several difficulties reported by professionals in the diagnosis process. These include lack of time, excessive activity, excessive number of patients, lack of staff, staff awareness, knowledge and experience with the use of classification. In addition, in some situations, some common element NDs, such as Related Factors (RF) or DC, are difficult to establish, due to their accuracy.¹¹

It is understood that a strategy that aims to minimize this problem is the content analysis and clinical validation studies that seek, through different methods, to confer legitimacy to the diagnostic process in specific populations. As studies in this field advance, there is a refinement of classifications through the identification of factors contributing to the occurrence of such an event, as well as signs and symptoms that best describe the responses of the human person, family or community health and disease processes.3 Throughout this process, the decisionmaking of nurses, the accuracy in choosing the ND that reflects the real situation of the patients cared for, as well as the improved communication between the team members through the Nursing registry is favored.

The initial stage of validation studies is the integrative literature review, which is the method used to construct the definitions of the elements that make up an ND. Instrument definitions are used for practice conduct as they describe the abstract or theoretical meaning of the concepts studied (conceptual definition) and specify the operations that researchers must do to collect information, indicating how the concept is found or measured in practice (operational definition) congruent with the conceptual definition.¹²

The objective of this study was to take into account the above, and taking into account the high number (126,583) of people with CKD on dialysis in Brazil¹³ and the human responses to this condition often identified in these patients,⁶⁻⁷ construct the conceptual definitions of the elements of the Excessive Liquid Volume (00026) present in the NANDA-I classification (2015-2017).

These definitions aim to identify such elements of ND in patients with CKD.

OBJECTIVE

• To construct the conceptual definitions of the components of the Nursing Diagnosis "Excess Fluid Volume (00026)".

METHOD

It is a bibliographic study, integrative review type developed in six stages:¹⁴ a) identification of the guiding question; b) sampling or literature search; c) categorization of studies and data collection; d) evaluation of studies included in the integrative review; e) interpretation of results and f) synthesis of evidenced knowledge or presentation of integrative review.

The following guiding question was formulated to guide this review: "How are the elements that make up the ND Excessive Liquid Volume (00026) conceptualized?". The time frame established was from 2012 to 2016. It is reported that this time frame was satisfactory to support the identification of signs and symptoms present in the diagnostic concept and in the construction of definitions.

For the search strategy, a) the controlled descriptors - Health Sciences Descriptors (DeCS) and Medical Subject Headings Terms (MeSH): Azotemia; Dyspnea; Hepatomegaly; Oliguria; Psychomotor agitation (Restlessness); Pleural effusion; Water imbalance (Electrolyte imbalance); Paroxysmal dyspnea (Paroxysmal nocturnal dyspnea); **Pulmonary** congestion (pulmonary edema); Systolic Murmus (B3) (Presence of S3heart sound); b) non controlled: Adventitious breath sounds; Alteration in blood pressure; Alteration in mental status; Alteration in pulmonary artery pressure (PAP); Alteration in respiratory pattern; Alteration in urine specific gravity; Anasarca; Decrease in hematocrit; Decrease in hemoglobin; Increase in central venous pressure (PVC); Intake exceeds output; Jugular vein distension; Orthopnea; Positive hepatojugular reflex; Weight gain over short period of time; Compromised regulatory mechanism; Excessive fluid intake and Excessive sodium intake. All descriptors were crossed with the terms Nursing Diagnosis and Renal Insufficiency using the Boolean operator "and".

The following databases were used to capture the studies: MEDLINE (Medical Literature Analysis and Retrieval System Online) via PUBMED (Biomedical Literature Ciattions and Abstracts), CINAHL (Cumulattive Index to Nursing and Allied Health Literature) and Web Of Science. These bases were selected because of their relevance to the areas of health and nursing.

The study inclusion criteria were: studies published from 2012 to 2016, in the area of Nursing, medical and general health, published in English, Portuguese or Spanish. This integrative review excluded editorials, letters, comments, previous notes, abstracts published in events, theses and dissertations. This time band was chosen to ensure the timeliness of the data, given that a larger time frame brought a large number of articles; In addition, the articles not available in full in these databases were found through the collection of the Portal of Periodicals of the Education Personnel Improvement Coordination (CAPES), by academic google or by request to the main author of the research. Articles found were downloaded to Endnote @, and this program found 521 duplicates. The search was performed in non-indexed databases, such as reference books for Semiology and Semiotics, medical area, manuals of care protocols of the Ministry of Health and Guidelines of the Brazilian Society of Nephrology (SBN) and the Brazilian Society of Cardiology (SBC), in addition to the guideline of the International Society Nephrology for the construction of the definition of some elements that were not covered in the selected articles. The database search took place in January and February 2017.

The selected studies were read in detail and, in characterize them, a validated order to instrument in Brazil was used for extraction.15 Data was organized in a Microsoft spreadsheet covering the year of publication, title, author (s), journal, country of study origin, study design and objectives, database and level of evidence (LE). 15

The articles were classified into seven levels regarding evidence: level I - evidence from systematic review or meta-analysis of randomized controlled trials or clinical guidelines based on systematic reviews of randomized controlled trials; level II - evidence derived from at least one well-designed randomized controlled trial; level III evidence from well-designed clinical trials without randomization; level IV - evidence from well-designed cohort and case-control studies: level V - evidence from systematic review of descriptive and qualitative studies; level VI evidence derived from a single descriptive or qualitative study; level VII - evidence from the opinion of authorities and / or expert committee report.16

A total of 2,477 articles were found. After reading the title and abstract, 52 articles in the Web of Science, 30 articles in CINAHL and 41 in PubMed were selected for full reading. Subsequently, the duplicate articles found by Endnote@ in the databases (n = 52) and those lacking elements to support the construction of definitions of the proposed terms (n = 50) were

excluded. After full reading, 21 articles were elected because they contain relevant content for the construction of the definitions of the elements of the NANDA-I Excessive Liquid Volume (00026).

Also, due to the difficulty of constructing definitions based on the articles found in the databases, a search in the gray literature was performed. Thus, the final sample consisted of the articles selected in the integrative review, eight textbooks, 5,9,17-22 a Ministry of Health care protocol

manual,²³ an SBN guideline,²⁴ an SBC guideline²⁵ and a guideline from the International Society of Nephrology,²⁶ totaling 33 items that supported the construction of the definitions of the elements of the NANDA-I Excessive Liquid Volume (00026).

The flow chart shows the Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA),²⁷ the identification, selection, eligibility and inclusion steps of the studies, as described in figure 1.

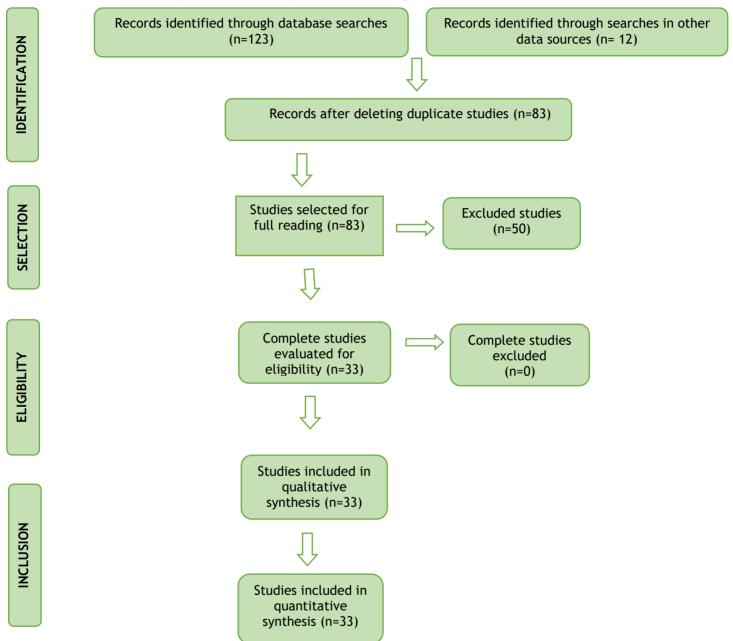


Figure 1. Search and article selection flowchart adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyzes. (PRISMA).²⁷

The content of the articles was maintained without modification in the excerpts extracted for the benefit of the integrative review in order to ensure research ethics.

RESULTS

Thirty-three studies were found, that supported the construction of the definitions of the terms of DE under study. Of the selected articles, the following journals stood out: International Journal of Nursing Practice; PLoS ONE; Nephrology; The American Journal Nursing; Kidney International; Critical Care; Nursing Standard; Journal of Renal Nutrition; International Journal of Nursing Studies; Medsurg Nursing; Latin American Journal of

Nursing; European Journal of Clinical Nutrition; Intensive Care Medicine; Brazilian Journal of Nursing; Clinical Medicine (Barcelona); Journal of Korean Medical Science; Medicine; Acta Paulista Nursing; Electronic Journal of Nursing and Journal of Nursing of UFSM.

Nine studies were conducted in Europe (England, Spain, Germany, Italy, Portugal and France);^{28-35,41} six in South America (Brazil);^{36-40,42} three in North America (US);⁴³⁻⁵ one in Oceania (Australia);⁴⁶ one in Asia (Korea)⁴⁷ and a multicenter study involved countries from several continents (Asia, Europe and America);⁴⁸ In terms of language, 14 studies were in English;^{28-32,34-5,40,43-8} six in Portuguese^{36-9,41-2} and one in spanish.³³

The studies consisted of five cohorts; 31-2,35,47-8 four methodological studies; 38-9,42-3 two literature reviews; 30,44 two clinical trials 33,40 and a qualitative study; 46 Regarding the approach, five studies used the cross-sectional approach; 29,34,36-7,45 one, the retrospective approach and one study is descriptive-correlational with cluster analysis; 41 out of 12 studies 28-29,31-35,41,45-48 developed with

adults, four occurred in hemodialysis environment with chronic renal patients^{28,33-34,41} and five studies were developed with children.³⁶⁻⁴⁰

The articles included in this review are characterized in Figure 2 according to title, country, objectives, level of evidence¹⁶ and year of publication.

Author	Title	Country	Year	E*	Objective
Andrade, Chaves, Silva, Beltrão, Lopes. ³⁶	Respiratory Nursing Diagnoses for Children with Acute Respiratory Infection. ³⁶	Brazil	2012	VI	To identify the prevalence of Ineffective Respiratory Pattern Nursing Diagnoses, Ineffective Airway Clearance, Impaired Gas Exchange and Impaired Spontaneous Ventilation, their defining characteristics and related factors, in children with acute respiratory infection
Martins, Meireles, Rabelo, Aliti. ⁴²	Conceptual and operational definitions of the defining characteristics of Nursing Diagnosis Decreased Cardiac Debit. 42	Brazil	2012	VI	To elaborate the conceptual and operational definitions of the 38 defining characteristics of the Nursing Diagnosis Decreased Heart Rate.
Yan, Zhu, Li, Shrubsole, Shi, Zhang, et al. ⁴⁵	Association of High Blood Pressure with Renal Insufficiency: Role of Albuminuria, from NHANES, 1999-2006. ⁴⁵	USA	2012	VI	Test the association between hypertension and changes in renal function, considering the level of albuminuria.
Perales-Montilla, Duschek, Paso. ³³	The influence of emotional factors on the report of somatic symptoms in patients on chronic haemodialysis: the importance of anxiety. ³³	Spain	2013	IV	To evaluate the presence of different somatic symptoms in hemodialysis patients compared to a control group and to analyze the predictive capacity of some psychological variables such as anxiety, depression, social support, self-efficacy and stress-fighting strategies.
Baker, Barsamian, Leone, Donovan, Williams, Carnevale, et al. ⁴³	Routine Dyspnea Assessment on Unit Admission. ⁴³	USA	2013	VI	To test the feasibility of measuring dyspnea as part of the initial patient assessment by nurses at various inpatient units of a large urban hospital.
Usvyat, Barth, Bayh, Etter, von Gersdorff, Grassmann, et al. ⁴⁸	Interdialytic weight gain, systolic blood pressure, serum albumin, and C-reactive protein levels change in chronic dialysis patients prior to death. ⁴⁸	Asia, Europe, Argentina USA	2013	IV	To analyze dynamic changes in weight loss, decline in pre-dialytic systolic blood pressure, and reduction in serum albumin in patients undergoing hemodialysis.
Teixeira C, Garzotto, Piccinni, Brienza, Iannuzzi, Gramaticopolo, et al. ³⁵	Fluid balance and urine volume are independent predictors of mortality in acute kidney injury. ³⁵	Italy	2013	IV	To evaluate the impact of fluid balance and urine volume on outcomes and determine whether they behave as independent predictors of mortality in adult patients with acute renal failure.
Lima, Lopes, Falcão, Freitas, Oliveira, Costa. ⁴⁰	Intervention for ineffective airway clearance in asthmatic children: A controlled and randomized clinical trial. 40	Brazil	2013	II	To analyze the effectiveness of an Intervention for Nursing Diagnosis of Ineffective Airway Clearance in Asthmatic Children.
Andrade, Moura, Chaves, Silva, Lopes. ³⁷	Ineffective airway clearance in children with acute respiratory infection. ³⁷	Brazil	2014	VI	To analyze the accuracy of defining characteristics of diagnoses of Ineffective Airway Clearance in children with acute respiratory infection.
Myatt. ³⁰	Diagnosis and management of patients with pleural effusions. ³⁰	England	2014	V	Discuss the causes and treatment of pleural effusion, referring to the guidelines produced by the British Thoracic Society.
Nerbass, Pecoits-Filho, Mcintyre, Mcintyre, Willingham, Taal. ³¹	Demographic Associations of High Estimated Sodium Intake and Frequency of Consumption of High-Sodium Foods in People With Chronic Kidney	England	2014	IV	To investigate sodium intake in a sample of people with Phase 3 Chronic Kidney Disease to identify demographic characteristics of subgroups with high sodium intake and specific foods that contribute to

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	Disease Stage 3 in England. ³¹				excessive sodium intake.
Hosie, Agar, Lobb, Davidson, Phillips. ⁴⁶	Palliative care nurses' recognition and assessment of patients with delirium symptoms: A qualitative study using critical incident technique.46	Australia	2014	VI	Explore the experiences, views and practices of hospice nurses in the recognition and assessment of delirium.
Simon. ⁴⁴	Leg Edema Assessment and Management. ⁴⁴	USA	2014	V	Discuss different types of edema in order to enable nurses to independently and collaboratively manage lower limb edema in their patients.
Gomes, Nóbrega. ³⁸	Anxiety in children following hospitalization: a proposal for a nursing diagnosis. ³⁸	Brazil	2015	VI	Describe the process of developing a Nursing Diagnosis in relation to child anxiety after hospitalization. Subsequent to the production of this process, it would be submitted to the international classification for nursing practice, according to the guidelines established by the International Council of Nurses and the ISO 18104: 2014 standard.
Nerbass, Pecoits-Filho, Mcintyre, Mcintyre, Taai. ³²	High sodium intake is associated with important risk factors in a large cohort of chronic kidney disease patients. ³²	England	2015	IV	To investigate the relationship between sodium intake and risk factors for progression of cardiovascular disease or CKD in a sample of phase 3 CKD patients recruited from primary care.
Legrand, Jacquemod, Gayat, Collet, Giraudeaux, Launay, et al. ²⁹	Failure of renal biomarkers to predict worsening renal function in high-risk patients presenting with oliguria. ²⁹	France	2015	VI	To explore the predictive value of biomarkers for predicting renal function in intensive care unit oliguric patients.
Cristóvão.⁴¹	Fluid and dietary restriction's efficacy on chronic kidney disease patients in hemodialysis. ⁴¹	Portugal	2015	IV	Identify the self-care measures used in wa.
Gomes, Fernandes, Nobrega. ³⁹	Hospitalization anxiety in children: conceptual analysis. ³⁹	Brazil	2016	VI	To analyze the concept of hospitalization anxiety in children, identifying their antecedents, attributes and consequences, in order to clarify its meaning.
Reque, Quiroga, Ruiz, Villaverde, Veja, Abad, et al. ³⁴	Pulmonary hypertension in hemodialysis patients: Prevalence and associated factors. ³⁴	Spain	2016	VI	To establish the prevalence of pulmonary hypertension in patients undergoing hemodialysis and its association with specific factors related to this patient population.
Kim, Kim, Kwon, Kim. ⁴⁷	Erythropoiesis-stimulating Agents and Anemia in Patients with Non-dialytic Chronic Kidney Disease. ⁴⁷	South Korea	2016	IV	To investigate the impact of reimbursement of erythropoiesis stimulating agents on the treatment of anemia in patients with non-dialytic CKD.
Becker, Walter, Witzke, Korber, Bienholz, Kottmann, et al. ²⁸	Edema, Hyperpigmentation, Induration: 3 Skin Signs Heralding Danger in Patients on Maintenance Hemodialysis. ²⁸	Germany	2016	VI	Focus on the putative putative associations of skin-specific findings with comorbidity and mortality.

Figure 2. Description of studies in relation to title, objectives, country and level of evidence published from 2012 to 2016. Campinas, SP, Brazil, 2017. * Level of evidence.

At the time of the research proposal, as well as at the beginning of the data collection, the RF and DC of the DC under study were considered as elements to be evaluated, according to the NANDA-I version (2015-2017).⁴ During the study period, we opted for the publication of the new version of NANDA-I (2018-2020),⁵ for readjusting

the nomenclature of the elements that make up the ND; Thus, the element "Committed Regulatory Mechanism", considered as RF until then, has been renamed CA, and the conceptual definitions of the elements of ND Excessive Liquid Volume (00026) are presented in Figure 3.

Related factors	Conceptual Definitions
Excessive fluid intake	Difficulty in managing thirst and, consequently, fluid intake above recommended, leading to increased interdialytic weight gain. ⁴¹
Excessive sodium intake Associated Condition	Sodium consumption above 2g / day, corresponding between 5g and 6g sodium chloride. 20,23,26,31-32
Regulatory mechanism compromised	Conceptual Definitions Impairment of the body fluid regulation mechanism that is maintained by a precise interaction between the intake and output of the kidneys, loss through the skin and lungs, and function of hydrostatic pressure within the cell compartment and osmolarity within each compartment. ⁴⁹
Defining characteristics	Change in the massurement of the density of disselved shamisals in the urine and influenced
Alteração na gravidade específica da urina	Change in the measurement of the density of dissolved chemicals in the urine and influenced by both the number of particles present and the size of the particles that may indicate dehydration and excess substances in the urine, reflecting excess substances in the blood. The change in reference values is an indication of renal dysfunction. Normal values / hydration: 1010-1025; concentrated urine: greater than or equal to 1025; diluted urine: 1001-1010. ¹⁷
Pulmonary Arterial Pressure Change (PAP) Change in blood	Mean pulmonary artery pressure above 25 mmHg at rest. ³⁴ Multifactorial clinical condition characterized by elevated or decreased blood pressure
pressure Alteration in mental state	levels. ^{25,45} Attitudes manifesting altered mental functions involving altered consciousness, attention, sense-perception, orientation, memory, intelligence, affectivity and mood, thinking, critical
Change in breathing pattern	judgment, conduct and language. ⁴⁶ Respiratory rate below or above the proposed values for the patient's age range. Respiratory rate between 16 to 20 irpm in adults is considered ideal (eupnea). ⁵⁰
Anasarca	General accumulation of fluid in the interstitial space. ²¹
Anxiety	Vague and uncomfortable feeling of discomfort or fear accompanied by autonomic response (source is often non-specific or unknown to the individual). It is a warning sign that draws attention to an imminent danger and allows the individual to take action to deal with the threat. ^{5,33,38-9}
Azotemia	Biochemical abnormality that refers to an elevation in plasma urea and creatinine levels and is largely due to a decreased Glomerular Filtration Rate (GFR. ¹⁹
Pulmonary congestion	Liquid accumulation in the interstitial and alveolar space, preventing adequate diffusion of oxygen and carbon dioxide. 18
Pleural effusion	Accumulation of fluid between the visceral and parietal pleura that spills into the chest cavity, preventing the lung from fully expanding during inspiration ³⁰
Electrolyte imbalance	Changes in electrolyte levels: hypernatremia: sodium level greater than $145 mEq / L$; hyperkalemia: potassium level greater than $5.5 mEq / L$; hypercalcemia: calcium level greater than $10.4 mg / dL$; hyperchloremia: chloride level above $103 mEq / L$; hyperphosphatemia: phosphorus level greater than $4.6 mg / dL$; hypermagnesemia: magnesium level greater than $2.6 mg / dL$. $17,26$
Dyspnea	Subjective experience of respiratory discomfort that consists of qualitatively distinct sensations, which may vary in intensity, from the reference to "tiredness" to "breathlessness". It usually occurs secondary to reduced cardiac and pulmonary perfusion and consequently to reduced cardiac contractility, either by decreased erythropoietin production or pulmonary congestion due to increased fluid in the alveolar space. ^{43,51}
Paroxysmal nocturnal dyspnea	Difficulty breathing at night after the patient has slept for a few hours, caused by increased venous return. ⁵⁰ Sleep is interrupted due to respiratory distress, causing the patient to sit on the bed or get up with choking sensation, dry cough and chest tightness. ⁵²
Jugular Vein Distension	State in which jugular vein turgence is observed when the patient is in the sitting / lying position at 45°. Sign indicating systemic congestion. ²¹
Edema	Excess fluid accumulated in the interstitial space (skin and subcutaneous cellular screen) 20 or within the cells themselves; as a consequence there are changes in sodium and water homeostasis. ^{22,28,44}
Weight Gain in a Short Time	Interdialytic weight gain (IWG), which is used to assess how the patient controls his fluid and nutritional intake, is calculated in kilograms or as a percentage of the individual's dry weight.41 On average, weight gain should be less than or equal to to 4.5% of the individual's dry weight. ^{48,53}
Decreased hematocrit	Hematocrit level less than 36% in women and less than 42% in men. ¹⁷
Decreased hemoglobin	Hemoglobin level less than 13g / dL in men and hemoglobin level less than 12g / dL in women or men over 65 years. 24,26,47
Hepatomegaly	Increased liver volume. ⁵⁴
Ingestion greater than elimination	Imbalance between sodium and water excretion and, consequently, there is fluid ingress and loss by breathing, perspiration, urine and feces, which leads to fluid accumulation. 9,35
Restlessness	Alteration of behavior with irritability, moodiness, psychomotor instability and restlessness, being observed by the examiner and validated by information from family members and the patient. ⁴²
Oliguria	Diuresis less than 400 ml / 24h or less than 20 ml / h ^{29,51}
Orthopnea	Breathing difficulty that appears or worsens with the adoption of the horizontal position; As a result, there is decreased pulmonary expansion and malfunction in this position due to fluid

	accumulation, tending to partially or fully relieve the upper chest. 21,37,40,42
Presence of the third heart sound (B3)	Cardiac auscultation of an "additional" noise that occurs at the onset of diastole and arises from the vibrations of the ventricular wall suddenly distended by the blood flow entering the cavity during rapid ventricular filling. It is more audible with the patient lying in the left lateral position. ⁵¹
Increased Central Venous Pressure (PVC)	Increased right atrial pressure measurement which refers to the right ventricular filling capacity (preload) at the end of diastole and represents the measure of the heart's ability to pump blood. Reference value from eight to 12 cm H20. ⁴²
Positive hepatojugular reflex	Sign of jugular vein filling when compression is applied over the hepatic topography located in the right hypochondrium. 21
Noises	Abnormal sounds (rales, snores, wheezing, crackling and / or pleural friction) produced by the passage of air in the occluded respiratory tract and / or air collision with tracheobronchial secretions. $^{36-7}$

Figure 3. Conceptual definitions of elements of Nursing Diagnosis. Excess Fluid Volume (00026). Campinas, SP, Brazil, 2017.

DISCUSSION

NANDA-I, through SLS, names the phenomena that individuals present and are sensitive to nursing actions. It is clear that these systems guide the work of nurses, however, it is relevant to emphasize that their clinical judgment must be accurate so that care planning meets the specific clinical situations of the patients treated. ⁵⁵ It is trusted as a strategy to approach nurses with validation studies that provide for the evaluation of the elements that make up NDs, either by judges in the validation of a given content and / or by nurses in a clinical environment in which care is exercised. with a certain population.

It is proposed, among the various existing methodologies, by Content Analysis, to perform the integrative review in order that the phenomenon of interest is explored and known in depth. The integrative review supported the construction of definitions that will assist in the recognition of the element (conceptual definition) as well as its measurement (operational definition). These definitions contribute to the knowledge of the elements that make up the phenomenon studied through its clear and objective description.

In this study, we sought to construct the conceptual definitions of RF and DC of Excessive Liquid Volume (00026), since the work developed by a group of scholars from the Federal University of São Paulo (UNIFESP) 56 brings the operational definitions of this diagnostic concept. importance of describing such phenomena is understood so that the nurse is assisted in the proposition of ND that represents, in fact, the answer presented by the patient, since it clarifies the terms with standardized definitions. In addition. knowledge about conceptual and operational definitions can support the teaching of the Nursing discipline and future research with a studied phenomenon, which may contribute to avoid misunderstandings in the assessment of patients..

The studies that determine the presence of the referred ND and its elements are guided by the proposition of the concept with greater accuracy by the nurse. For some, the prevalence of these indicators for patients with excessive fluid volume is shown (00026).^{6,7,57,58} In one study, the most frequent NDs in chronic renal patients undergoing hemodialysis were identified and this diagnostic concept was present in 100% of the 28 selected patients. In addition to the prevalence of ND, it is relevant to understand which clinical indicators have been validated in specific populations. This knowledge can help in understanding how the human response develops, its determinants and consequences, and also in favoring the planning of nursing care.

It is important for the nurse to recognize the complications that CKD patients may have, and among them, acute pulmonary edema, fluid overload and, consequently, circulatory, which may lead to decreased cardiac pump efficiency, resulting in congestive heart failure and systemic arterial hypertension, as well as coronary artery problems. 6,49,59 and cerebrovascular Prevention and control of these complications depend on the correct evaluation by the nurse. Therefore, it is essential that it seeks to identify, among the patients under its care, those who are affected by such complications so that nursing care meets the urgent need of each individual.

In another study, 60 the prevalence of RF and CD in patients undergoing hemodialysis was verified, also identifying the association of these elements with sociodemographic and clinical variables. The CD presented azotemia, decreased hematocrit, electrolyte imbalance, greater than elimination, anxiety and edema, prevalence over 80% in the study sample, being considered relevant indicators for diagnostic The compromised inference: regulatory mechanism and excessive sodium intake elements were 100% prevalent, being considered relevant indicators for the development of this diagnosis.

In a study carried out in a university hospital in northeastern Brazil, with 100 patients undergoing hemodialysis, the accuracy of the DC of the phenomenon under study regarding sensitivity, specificity and positive and negative predictive values was evaluated. It was concluded that the most sensitive indicator was edema and the most specific indicators were pulmonary congestion, adventitious respiratory noise and agitation.⁵⁸

In a research conducted with 98 hospitalized adult patients undergoing hemodialysis, the presence of the DCs from the nursing consultation and physical examination, as well as from the evaluation of laboratory tests, was investigated. The determinant indicators in this analysis are known to be decreased hemoglobin and hematocrit, present in 97% of the sample, followed by electrolyte imbalance, in 62%; oliguria in 67% of patients; adventitious breathing noises, in 59%; edema and ingestion greater than elimination, in 52%, respectively.⁷

It is guided by the clinical evidence produced by studies in the area, in fact, the practice of care, which gives legitimacy to the actions. It is understood that the accuracy in identifying the signs and symptoms that contribute to the occurrence of the phenomena is indisputable for a diagnostic reasoning with higher predictive value. It is necessary to approach the nurse with the studies that name, define and validate the components of NDs to improve the quality of care and directly influence the reestablishment of health conditions of patients treated.

One can, by constructing the conceptual definitions of the elements that make up the diagnostic concept, through the integrative review, better describe what is in practice; In addition, it can favor the planning of nursing care offered, minimizing the complications and suffering of patients.

It is pointed out that, of the indicators evidenced in the reported studies, the defining characteristic agitation is translated by the restlessness indicator. This behavior change can be observed, in which the patient presents irritability, moodiness and psychomotor instability, by the examiner, validating it by information from family members and the patient.⁴² This indicator is due to the alteration of electrolytes and the excess volume of fluid in the lungs, respiratory distress and, consequently, decreased oxygen supply to brain tissues. 49,5 In this context, it is also prevented by the pulmonary congestion element, translated by the accumulation of fluid in the interstitial and alveolar space, the adequate diffusion of oxygen and carbon dioxide, 18 further compromising the breathing pattern. Associated with this is the deficiency in erythropoietin production due to inactivity of the adrenal gland, responsible for the constant respiratory fatigue in these patients and for the anemia detected based on low hemoglobin and hematocrit levels in laboratory tests. 19

In association with this condition, adventitious breathing noises arise. These are abnormal sounds originating from the collision of air with tracheobronchial secretions; in this case, due to excess pulmonary fluid present in the respiratory tract.³⁷ These DC are known to be justified by another indicator present in this population, edema, considered in some studies as sensitive to the occurrence of excess fluid; 58,60 This is the most common cause of hospitalization of these patients, in addition to being directly associated with the indicators higher ingestion than debt, short-term weight gain and jugular distension caused by systemic congestion established in CKD.²¹ This systemic congestion can interfere with the return of blood to the heart and cause numerous problems, such as respiratory distress, tachypnea, increased heart rate, fatigue and change in level of consciousness.

Electrolyte alteration was found as another indicator evidenced in a study, 60 since renal failure prevents the regulation of important elements for the maintenance of the body's homeostasis. Thus, serum accumulation is favored, causing hypernatremia, hyperkalemia, hyperchloremia, hyperchloremia, hyperphosphatemia, hypermagnesemia, among others, leading to various systemic complications.

This whole picture, which characterizes the human response under study and may cause severe complications to the patient with CKD, needs to be thoroughly studied. Therefore, the proposition of this study, which is relevant for the execution of the next phases, such as content and clinical validation, is justified.

It is believed that the construction of conceptual definitions is a strategy in the search for standardization of the language used by nurses, which aims to facilitate communication between team members, improve diagnostic accuracy and care planning, and contribute to research in the area, favoring the teaching of the Nursing discipline. It is emphasized the relevance of deepening the knowledge about the phenomena presented by the patients, and the description of elements that compose such phenomena helps in this deepening and, consequently, legitimizes nursing care.

CONCLUSION

It is inferred, after analyzing the articles included in this review, that the main indicators related to excess liquids supported the construction of the definitions of RF, CA and DC presented by NANDA-I. The clinical evidence found in the studies was generally related to hypertension, edema, water and dietary intake,

respiratory changes, biochemical changes, changes in mental status, weight gain and urinary elimination.

Based on the definitions constructed in this study, the recognition of each of the indicators that make up the diagnostic concept Excessive Liquid Volume (00026) is directed, as well as helping nurses to plan their actions in accordance with the patients' needs. Nevertheless, nursing knowledge is favored and the development of the language used by nurses is encouraged, because, despite the advancement of existing treatments, patients constantly have complications arising from CKD. Fluid retention is the main complication present in these patients, as a human response of interest and responsibility of the Nursing team.

Regarding the phenomenon under study, the construction of definitions facilitates the understanding of ND by the interdisciplinary team, enabling more efficient and uniform patient care. Understanding of this phenomenon becomes easier and such definitions can be used as a teaching strategy, as well as facilitating Nursing registration and data analysis of patients with excess fluid volume.

As a limiting factor of the study, we highlight the need for increment through the gray literature, considering that not all elements could be included in the studies included in this review. It is considered that this study will contribute to the next steps of the validation process of this diagnosis in the CKD population, content analysis and clinical validation that are already being conducted.

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