NURSING DIAGNOSES IN PATIENTS UNDER INTENSIVE CARE

ABSTRACT

Nurses are health professionals inserted in all spheres of complexity, as they apply their care based on the Systematization of Nursing Care (NCS), which offers a systematized and science-based service. Thus, in the context of patients in intensive care, characterized as critical, they need differentiated care. Thus, the objective is to identify nursing diagnoses based on the NANDA taxonomy in patients under intensive care. It was carried out from a descriptive, exploratory, integrative literature review study, in the LILACS and VHL databases, including articles published in the last five years, in Portuguese, English and Spanish. The data were analyzed by tabulation using an instrument developed by the authors. 4 articles were searched for the sample, and the following nursing diagnoses were highlighted: Impaired skin integrity; Risk of Impaired Skin Integrity; Risk of infection; Risk of aspiration; Deficit of self-care bathing/hygiene; Interrupted family process; Risk of disuse syndrome; impaired oral mucosa; Ineffective breathing pattern; Unbalanced nutrition. It is concluded that the nurse's performance from the NCS enhances the quality of the service provided, and has repercussions on patient safety. NCS studies promote evidence-based practice and promote the health of patients assisted

Keywords: Nursing Diagnoses; Nursing Care; Critical Care; Intensive Care Units.

INTRODUCTION

The professional nurse is a member of the multidisciplinary health care team, in which he is included at all levels of complexity, such as: primary, secondary and tertiary, and whose objective is to intervene in health promotion and education, prevention, early diagnosis, treatment and rehabilitation. The Nurse works together with the Nursing Technician professional, thus forming the nursing team. However, it is up to the nurse to evaluate, plan and intervene, and to both to implement the interventions (1).

For the applicability of the care provided by the nursing team, there is an instrument to support and sustain care as a science. Called Nursing Care Systematization (NCS), which aims to organize and implement the Nursing Process (NP), which consists of five stages: 1 Nursing data collection, 2 Nursing Diagnoses, 3 Nursing Planning, 4 Implementation, 5 Nursing Evaluation (2).

Thus, NCS should be carried out systematically, as it allows the organization of the service, care, management and education. Regarding the NP, its implementation promotes care based on scientific evidence, because in the first stage nursing problems are identified, and in the second stage, a Nursing Diagnosis (ND) is listed for each problem evidenced (3).

The NDs must be followed in full, so there are taxonomies that are used in this stage, such as: North American Nursing Diagnosis Association (NANDA); International Classification for Nursing Practice (ICNP); Reference Terminology in Nursing (ISO 18104 Standard), as they already have a validated ND. Thus, based on the defined NDs, the nurse prescribes the interventions for each ND, implements them with the team and evaluates (4).

In this perspective, the nurse's performance in the context of the Intensive Care Center (ICU) stands out, which is a hospital sector intended for intensive care for critical patients, as they require advanced technological resources, specialized staff and specific physical space that the ICU has (5).

The patient who needs intensive care is characterized as severe or at risk, so the nursing team needs to know care focused on high complexity, as well as how to handle the equipment, know how to interpret it, properly evaluate the patient, in order to maintain the stability of vital signs and identify a complication early. It should also be emphasized the risks that intensive care offers to the patient, such as: pressure ulcers, healthcare-associated infections, and adverse events (6).

In this context, the following research question emerged: what are the nursing diagnoses based on the NANDA taxonomy in patients under intensive care? Thus, the objective of this research is to identify nursing diagnoses based on the NANDA taxonomy in patients under intensive care.

METHODOLOGY

This study is an exploratory, descriptive study, with a qualitative approach, in the Integrative Literature Review (RIL) modality. This method is characterized by bringing together studies already published and synthesizing evidence on the topic studied, which is very useful for health professionals, as it provides the identification of treatments and innovations, favoring evidence-based practice, ensuring quality of service (7).

This review method establishes 6 steps: 1 - Elaboration of the research question, 2 - Establishment of criteria for inclusion and exclusion of studies/sampling or literature search, 3 - Definition of the information to be extracted from the selected studies/categorization of the studies, 4 - Evaluation of the studies included in the integrative review, 5 - Interpretation of the results, 6 - Presentation of the review/synthesis of knowledge (8).

Based on the research question: what are the nursing diagnoses based on the NANDA taxonomy in patients under intensive care? The Latin American and Caribbean Literature on

Health Sciences (LILACS) and Virtual Health Library (VHL) databases were searched. And original articles, systematic and integrative review, in Portuguese, English and Spanish, published within the time limit, from 2014 to 2019, that address the adult patient, were established for the inclusion criteria. Excluding case studies, dissertations, theses, experience reports and editor's letter.

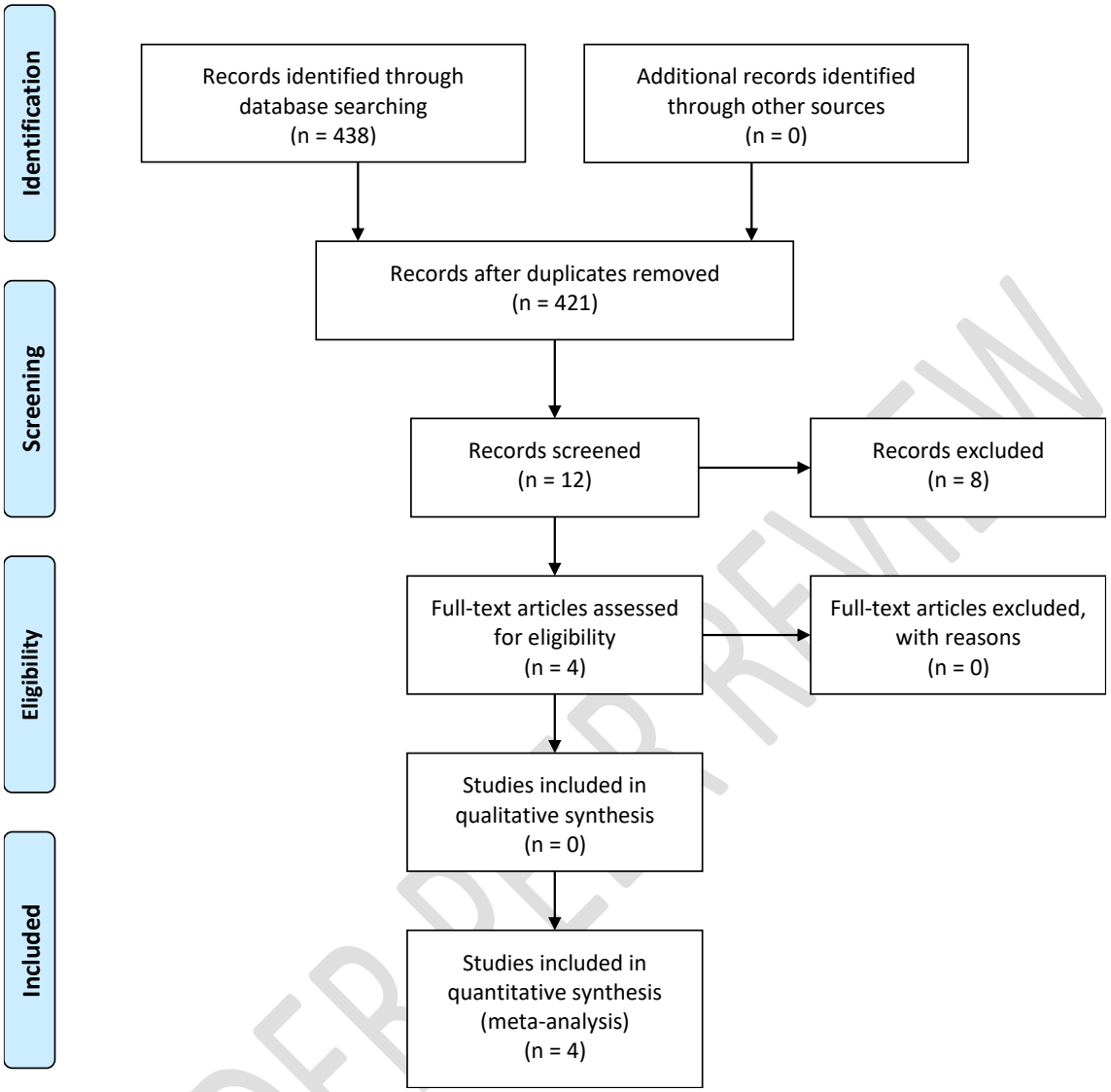
The following health descriptors were selected for the searches: Nursing Diagnoses; Nursing Care; Critical Care; Intensive Care Units. The Boolean operator AND was also used to enhance the search, crossing the AND with the descriptors. Based on the search using all the established criteria, the sample was selected based on the articles that met the inclusion criteria and answered the research question.

For data collection, we chose to use the tabulation, constructed by the authors, consisting of the following information: article number, authors, title, database, year, methodology and Nursing Diagnoses evidenced. Tabulation provides the organization of the data collected. In this way, visualization was facilitated, making it possible to perform a descriptive analysis of the tabulated data and highlight the most prevalent Nursing Diagnoses in the studies included in this review research.

RESULTS

From the search in the databases using the descriptors, it was shown that LILACS initially resulted in 102 articles, and in VHL 336. After careful analysis according to the inclusion and exclusion criteria, it was possible to select 3 in LILACS, but only 2 articles were included in the sample. In the VHL, 9 were selected, and only 2 were included. Thus, the sample closed in 4 articles. See the flowchart according to the prism protocol below.

Figure 1 - Flowchart of the selection of studies according to the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA 2009). Belém (PA), Brazil, 2019.



Source: authors' research.

Thus, based on the selection criteria, the sample closed in 4 articles. Then, the data were extracted for tabulation and then organized on the board, corresponding to the information previously defined by the authors: article number, authors, title, database, year, methodology and Nursing Diagnoses evidenced. See the following table.

Table 1 – Information extracted from the sample, tabulated and organized in the table. Belém (PA), Brazil, 2019.

Titile No. Year/Base	**Authors**	**Methodology**	**Nursing Diagnoses evidenced**

1 – Nursing diagnoses and Roy's adaptive model: analysis in critically ill patients 2014 LILACS	DANTAS, ALDM et al.	This was a cross-sectional study in an ICU with 86 individuals. The data, collected through an interview form and physical examination, were analyzed through descriptive and inferential statistics.	Impaired skin integrity. Risk of Impaired Skin Integrity. Risk of infection. Deficit of self-care bathing/hygiene.
2- Prevalence of nursing diagnoses in intensive care units 2017 LILACS	CABRAL, VDH. ANDRADE, IRC. MELO, EM. CAVALCANTE, TDMC	This is a descriptive and documentary study, in which 69 medical records of patients over 18 years of age were consulted.	Risk of infection. Impaired skin integrity. Risk of aspiration.
3- Nursing diagnoses, outcomes and interventions as measures of patient complexity and nursing care requirements in the Intensive Care Unit 2016 VHL	CASTELLAN, C. SLUGA, S. SPINA, E. SANSON, G.	100 individuals from an intensive care ICU. The independent association between the number of nursing diagnoses and length of hospital stay/mortality was investigated with multiple regressions.	Deficit of self-care bathing/hygiene. Risk of infection. Family process interrupted. Risk of disuse syndrome. Risk of impaired skin integrity.
4 – Nursing diagnosis in an intensive care unit: the experience in Turkey 2014 LILACS	Korhan, A. Yont, G. Erdemir, F. Müller-Staub, Ma.	Turkish intensive care unit nurses (N = 45) declared the nursing diagnoses described by the patient data.	Risk of impaired skin integrity. Impaired oral mucosa. Risk of infection. Ineffective breathing pattern. Unbalanced nutrition

Source: authors of the research.

Based on the information presented in the chart, the profile of the articles and the nursing diagnoses evidenced are shown. Regarding the profile, there are studies published two in 2014, one in 2016 and one in 2017, characterizing new studies on the methodology, all field studies, carried out in the ICU setting with adult patients, two in Brazil and two in other countries.

In relation to the Nursing Diagnoses highlighted**: Impaired skin integrity; Risk of Impaired Skin Integrity; Risk of infection; Risk of aspiration; Deficit of self-care**

bathing/hygiene; Interrupted family process; Risk of disuse syndrome; Impaired oral mucosa; Ineffective breathing pattern; Unbalanced nutrition.

DISCUSSION

The most prevalent nursing diagnoses in intensive care patients were surveyed, including Impaired skin integrity and Risk of impaired skin integrity were reported in the articles of this review. Corroborating the results of a study carried out in an ICU of a hospital in Maranhão, which showed a predominance of 100% of the presence of the two diagnoses in 40 patients surveyed (9).

The patient in intensive care is usually bedridden or needs bed rest due to various conditions, so immobility, related to other factors such as nutrition and drug use, are already risk factors for skin lesions. The introduction of invasive devices such as catheters also affects the integrity of the skin, so patients already have their skin damaged by the devices, and still have risks of developing pressure injuries (10).

Another ED evidenced was the Risk of Infection. This result is similar to a review study carried out Martins et al., (2018), which showed Risk of infection in all included articles. It also confirms that it is related to venous access puncture, use of orotracheal tube, invasive mechanical ventilation therapy, use of tracheostomy, drains, surgical incisions, insertion of gastric and bladder tubes, skin lesions with skin rupture and tissue destruction. In addition, the hospitalization period can subject the patient to invasive diagnostic procedures and tests, these factors contribute to the high risk of infections.

Regarding the ND Risk of aspiration, critically ill patients have a higher risk for the entry of secretions into the airways related to several factors, such as: gastroparesis, presence of endotracheal tube, decreased level of consciousness, and complex pharmacological therapy. In addition, aspiration of secretions is strongly linked to the episode of aspiration pneumonia, which increases mortality, length of hospital stay, duration of mechanical ventilation, and treatment costs (12).

The ND Deficit of self-care for bathing/hygiene was also highlighted. This corroborates a study on nursing diagnoses and interventions in an ICU in Minas Gerais, which also showed this ND present in patients in intensive care. Because, related to the critical clinical condition, sedation and physical immobility, the patient is unable to perform self-care, so the nursing team

must perform bed bathing, oral, scalp and genital hygiene. It is known that preserved hygiene is essential for the maintenance of health, even affecting the treatment and outcome (13).

For the ND Interrupted family process, this result is in line with the study of Fidélis et al., (2014), which showed more than 70% of patients in an ICU. Thus, this ND can be defined as insufficient quantity, or ineffective quality of social exchange, modification in relationships and/or family functioning. Related to the lack of significant people, communication barriers and therapeutic isolation.

The ND Risk of disuse syndrome was also evidenced. In a systematic review of this ND in critically ill patients, it was demonstrated that physical immobility and long hospitalizations can cause disuse syndrome, which is characterized by a reduction in muscle contraction, decreased strength and atrophy of muscle mass, contractures, risk of joint stiffness, and osteoporosis. In addition, the bedridden patient can lose muscle from 1 to 3% per day or 10 to 15% of their strength per week. Therefore, staying inactive for 3 to 5 weeks can lose half of your muscle strength. Nurses should: apply stretching techniques, promote joint mobilization, promote physical movement and movement, and prevent falls (14).

Also highlighted was the ED Oral mucosa harms. Second Zanei et al., (2016), patients in intensive care already have the risk of developing injury or impaired hygiene in the ICU, related to invasive mechanical ventilation and self-care deficit, so adequate oral hygiene should be promoted, as it will minimize the risk of injury to the oral mucosa and prevent ventilator-associated pneumonia, which is a very relevant aggravation in mortality and longer hospitalization periods (15).

For the ND Ineffective breathing pattern, in line with the results of Ferreira et al., (2016), which traced the NDs in ICU patients from NANDA, and showed the predominance of this ND. It is related to the presence of secretions in the airways, interfering with the effective performance of gas exchange, the use of ventilatory support, and clinical complications such as pulmonary edema and respiratory failure, causing dyspnea on minimal exertion, arterial blood gas analysis (70%), and tachycardia.

The ND Unbalanced Nutrition was also highlighted. Since this ND is related to the difficulty in swallowing, presented by most critical patients, either due to the clinical condition or sedation, in this way the nasogastric tube should be used when the gastrointestinal tract is intact, to feed the patient, because adequate nutrition has repercussions on the recovery and maintenance of health, since the body needs specific nutrients and calories to maintain physiology (17).

It showed the NDs evidenced in patients in intensive care The use of NCS in the ICU ensures the organization and structuring of the unit by contributing positively to the quality of care provided, providing greater safety and bringing benefits not only to Nursing but also to the patient, highlighting the respect for individuality and quality of care provided by the Nursing team (11).

FINE CONSIDERATIONS

Based on this review study, it showed the main nursing diagnoses presented in patients in intensive care, such as: Impaired skin integrity; Risk of Impaired Skin Integrity; Risk of infection; Risk of aspiration; Deficit of self-care bathing/hygiene; Interrupted family process; Risk of disuse syndrome; Impaired oral mucosa; Ineffective breathing pattern; Unbalanced nutrition.

Thus, it was possible to achieve the proposed objective, as studies on the Systematization of Nursing Care promote scientific evidence on the subject for nursing professionals, contributing to evidence-based practice, reflecting on the quality of service offered by nursing, also promoting the health of the patients assisted.

It was perceived that nurses working in the context of the intensive care unit need specific knowledge and skills, thus emphasizing professional qualification and continuing and continuing education to enhance the quality of service of the nursing team.

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