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INTEGRATIVE LITERATURE REVIEW ARTICLE

ANALYSIS ON VALIDATION STUDIES OF NURSING INTERVENTIONS* ANÁLISE SOBRE ESTUDOS DE VALIDAÇÃO DE INTERVENÇÕES DE ENFERMAGEM ANÁLISIS SOBRE ESTUDIOS DE VALIDACIÓN DE INTERVENCIONES DE ENFERMERÍA

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ABSTRACT

Objective: to analyze the scientific production on the validation of nursing interventions. **Method:** this is a bibliographic, descriptive, integrative literature review, in the time frame from 2007 to 2016, in MEDLINE, CINAHL and Virtual Health Libraries and COCHRANE. The studies were organized, categorized, and analyzed in a perspective descriptive. **Results:** 147 articles were researched and, after reading the abstracts and texts in full, eight articles were included. **Conclusion:** it was identified, through the integrative review, the scientific production referring to the validation of nursing interventions in the literature, showing an increase in the production of these studies, which contributes to the practice of Nursing in Brazil. **Descriptors:** Nursing Care; Validation Studies; Nursing Processes; Nursing Diagnosis; Classification; Nursing.

RESUMO

Objetivo: analisar a produção científica sobre a validação de intervenções de enfermagem. *Método*: trata-se de um estudo bibliográfico, descritivo, tipo revisão integrativa de literatura, no recorte temporal de 2007 a 2016, na MEDLINE, CINAHL e Bibliotecas Virtual de Saúde e COCHRANE. Organizaram-se os estudos, categorizando-os e os analisando de modo descritivo. *Resultados*: encontraram-se 147 artigos e, após a leitura dos resumos e dos textos na íntegra, foram incluídos oito artigos. *Conclusão*: identificou-se, por meio da revisão integrativa, a produção científica referente à validação de intervenções de enfermagem na literatura, evidenciando um aumento da produção desses estudos, o que contribui para a prática de Enfermagem no Brasil. *Descritores*: Cuidados de Enfermagem; Estudos de Validação; Processo de Enfermagem; Diagnóstico de Enfermagem; Classificação; Enfermagem.

RESUMEN

Objetivo: analizar la producción científica sobre la validación de las intervenciones de enfermería. *Método:* se trata de una revisión bibliográfica, descriptiva, integradora de la literatura, en el período de 2007 a 2016, en MEDLINE, CINAHL y Bibliotecas Virtuales de Salud y COCHRANE. Se organizaron los estudios, categorizándolos y analizándolos de manera descriptiva. *Resultados:* se encontraron 147 artículos y, después de leer los resúmenes y textos completos, se incluyeron ocho artículos. *Conclusión:* a través de la revisión integradora, se identificó la producción científica relacionada con la validación de las intervenciones de enfermería en la literatura, mostrando un aumento en la producción de estos estudios, lo que contribuye a la práctica de Enfermería en Brasil. *Descriptores:* Atención de Enfermería; Estudios de Validación; Proceso de Enfermería; Diagnóstico de Enfermería; Clasificación; Enfermería.

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INTRODUCTION

Nursing care becomes operational based on the Nursing Process (NP), a methodological instrument that guides the professional care of nurses, provides documentation of their practice, highlighting the contribution of Nursing in health care and expanding recognition and visibility professionals.¹⁻³

The use of this methodological instrument began in the 1970s in Brazil, following the publication of the book "Nursing Process", by professor Wanda de Aguiar Horta, based on Maslow's Theory of Basic Human Needs. 1,4

The Nursing Process is organized in five interrelated and interdependent stages: Data Collection; Nursing Research or History; Nursing Diagnosis; Nursing Planning; Nursing Implementation and Evaluation.¹⁻⁴

It is informed that, during the investigation stage, the nurse needs to raise the patient's subjective and objective information, worrying about knowing his past history and the current history, as the previous steps subsidize the clinical judgment on the human responses presented by people, families, groups and community in relation to health problems and life processes.¹⁻³

It is added that, later, Nursing actions are formulated and the expected results, which will be implemented by the Nursing team, who will perform the activities previously prescribed, being reassessed in the next step, in a systematic and continuous process, so that the changes in the individual's responses and determine if the interventions achieved the results that had been plotted, serving as a basis for changes in the work plan of the Nursing team.¹⁻³

This study focuses on the third stage of the NP, Nursing planning, which considers factors such as the profile of the person under nursing care, the place where it will be carried out, the services available and the necessary actions for promotion, prevention, health recovery and rehabilitation. At this moment, the expected results are traced, which are closely dependent on Nursing interventions, also planned in this stage, which will guide Nursing actions.⁵

Nursing interventions can be classified using a standardized language system, the Nursing Intervention Classification (NIC), which is widely used today and describes the treatments performed by nurses, taking into account clinical knowledge, to improve patient results, providing standardized care and communication, in addition to providing a source of data for research.⁵⁻⁶

Its structure of domains, classes and interventions is composed, with the title of a specific intervention, a code that refers to the taxonomic registration, its definition, a

delimitation of priority activities, complementary activities and their references.⁵

To legitimize and improve this assistance that involves nursing interventions and activities, the validation study, a methodology used to provide support to nursing care.⁶

It is known that the way of measuring phenomena is a current concern of researchers in the Nursing area, since the carrying out of investigations, which use new tools and instruments, is necessary to establish degrees of reliability and validity and, if they do not show concepts of the theory that will be tested, the conclusions found will be invalid.⁶

Due to the limitations found in traditional validation models, advanced methods for these studies were developed, based on advanced statistical techniques that can be used to determine the accuracy of components of a Nursing Diagnosis (ND), Nursing Results (NR) and Interventions (NI), in addition identifying important elements in the classification of people in a given Nursing phenomenon.⁷

Nursing classifications are used to support validation studies, which are standardizations of ND, NR and NI, therefore, the focus of this study is NI and its respective activities presented in the Classification of Nursing Interventions (NIC).⁵ The NIC is used worldwide for the standardization of nursing interventions, being important for the Nursing area, which is in constant search for new ways to systematize care.⁶

It is possible, in this search for innovations, through studies of integrative literature review, to identify knowledge gaps, allowing to obtain sources of ignorance about a certain problem, following rigorous methodological standards and providing the reader with subsidies for practice and the advancement of Nursing. Nurses are subsidized by identifying, through an integrative literature review, validation studies of Nursing interventions, for qualified assistance, reduction of complications and expenses for health institutions.

OBJECTIVE

• To analyze the scientific production on the validation of nursing interventions.

METHOD

This is a bibliographic, descriptive, integrative review (IR) study, in six phases that are divided into: identification of the topic or questioning; sampling or literature search; categorization of studies; evaluation of studies that were included; interpretation of results and, finally, a synthesis of the knowledge that was highlighted in the

analyzed articles or the presentation of the integrative review.⁸

The PICOt strategy was used to elaborate the guiding question (P: world population; I: evidence found in the literature on nursing interventions; C: (-); Ot: validation studies from 2007 to 2016), namely: "What is the evidence found in the literature on Nursing interventions validated from 2007 to 2016 in the world?".

Articles were selected from the following databases: Cochrane Library®; Online Medical Literature Search and Analysis System (MEDLINE); Cummulative Index to Nursing and Allied Health Literature (CINAHL) and VHL Virtual Health Library. 10-3

The search for articles was carried out in pairs, from November 2017 to January 2018. Articles published in Portuguese, English or Spanish were included in the study, between 2007 and 2016, which presented NI validation studies. Publications that had an editorial format, a summary of congresses and a letter to the reader were excluded.

The following Health Sciences Descriptors (DeCS) were used: Nursing Processes; Nursing Care and Validation Studies, with the Boolean operator "and".

147 search results were obtained. Pre-selection of articles was carried out by assessing the title and, when necessary, the abstract. Thus, after pre-selection, 25 articles were obtained, of which one was duplicated in another database and, therefore, was excluded; there were still 24 articles left, which were reevaluated after a fluctuating reading, to ensure compliance with the established criteria.

Articles that did not meet the inclusion criteria were excluded, so 16 articles were excluded and the final sample consisted of eight articles.

Six (75%) articles were selected from the VHL database; in CINAHL, one (12.5%) article was selected and, in MEDLINE, also (12.5%) article. Figure 2 shows that there was an increase in publications after 2007, with 50% (n = 4) being published in the years 2013 and 2016; in relation to the country of publication, 12.5% (n = 1) were published in North America (USA) and 87.5% (n = 7) were published in South America (Brazil).

For the presentation of the results, the Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA) flowchart was used for the analysis of this review, in Figure 1, shown below.

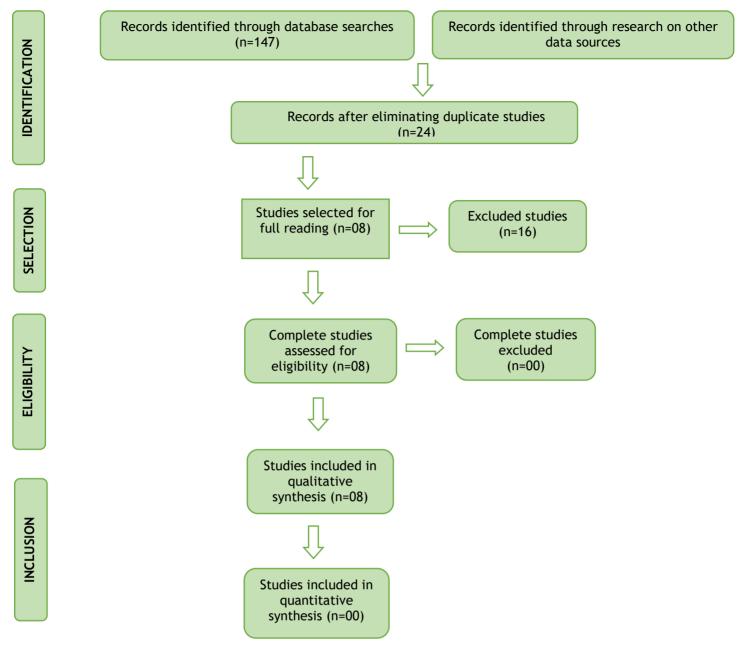


Figure 1. Flowchart of study selection adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2009). Campinas (SP), Brazil, 2019.

Articles were analyzed based on the following elements: year of publication; periodical; country of origin; Nursing diagnosis regarding the intervention; nursing interventions; methodological design; results and conclusions of the studies and the level of evidence. For the extraction of data from the selected articles, the instrument developed and validated was used. The level of evidence of the articles was classified using the five levels described. The level of evidence of the articles was classified using the five levels described.

Studies were selected and analyzed by two researchers.

RESULTS

It is revealed that most of the articles aimed to validate NIC interventions for a specific diagnosis of the NANDA-International taxonomy (NANDA-I)¹² and others validated protocols, guides and care mapping, as shown in figure 2.

Name	Year	Country	Journal	Qualis ¹⁴
Nursing conduct for the care of children with respiratory infection: validation of a guide ¹⁵	2007	Brazil	Acta Paulista of Nursing	A2
Validation of the mapping of prescribed care for orthopedic patients to the classification of nursing interventions ¹⁶	2010	Brazil	Latin-American journal of nursing	A1
Validation of Nursing interventions in people with Diabetes Mellitus ¹⁷		Brazil	USP Nursing school journal	A2
NIC Nursing Classification interventions validated for patients at risk for pressure ulcers ¹⁸	2012	Brazil	Latin-American journal of nursing	A1
Validation of Nursing interventions for patients with spinal cord injury and impaired physical mobility ¹⁹	2013	Brazil	Brazilian Journal of Nursing	A2
Mapping of nurses' interventions / activities in a chemotherapy center: an instrument for assessing workload ²⁰		Brazil	Latin-American journal of nursing	A1
Validation of nursing care protocol for patients in palliative care ²¹	2016	Brazil	Acta Paulista of Nursing	A2
Adequacy of the Activities in ther nursing intervention exercise therapy: Ambulation for medical-surgical patients with impaired physical mobility ²²	2016	Estados Unidos	International Journal of Nursing Knowledge	A2

Figure 2. Characterization of articles according to the year of publication, country, journal and qualis. ¹⁴ Campinas (SP), Brazil, 2018.

It is observed that, in the studies highlighted in figure 3, we opted for validation by expert judges on the subject of interest in the studies. It is noteworthy that the number of judges varied from

nine to 60 judges, also varying the criteria for their choice, with the majority of researchers adapting the criteria for their.

Year and referrence	No. of judges	Criteria for choosing judges
2007 ¹⁵	21	Criterion adapted from a previous study with at least one year of clinical practice.
2010 ¹⁶	22	Experience with NIC and minimum of two years in assistance.
2011 ¹⁷	21	Directors of institutions registered with the Brazilian Diabetes Society and search for specialists on the Lattes platform.
2012 ¹⁸	16	Criteria adapted for the study with practical experience without an established time.
2013 ¹⁹	54	Criteria adapted for the study with at least two years of clinical experience in the study area.
2013 ²⁰	9	Judge selection criteria were not defined
2016 ²¹	11	Criteria adapted based on the scoring system proposed by Fehring without practice time as a criterion.
2016 ²²	60	Nurses with at least one year of experience in the study area.

Figure 3. Characterization of articles according to the number of judges and selection criteria. Campinas (SP), Brazil, 2018.

It is also noteworthy that, for the choice of judges, there was no balance between the criteria related to the assistance area and the academic area, with 25% (n = 2) of the studies stipulating only experience in the area in the area of assistance of at least two years; 25% (n = 2) selected care judges with no minimum practice time in care; 12.5% (n = 1) stipulated a minimum of one year of assistance; 12.5% (n = 1) used criteria related to the judge's academic background and a minimum of one year of assistance; 12.5% (n = 1) also used academic criteria, but did not stipulate a minimum time of assistance experience and 12.5% (n = 1) of the studies did not establish any criteria related to the area of assistance or academic.

It is detailed, in relation to the validation method, that all studies validated the interventions by Content Analysis.

It is evident, regarding the areas of study of the investigations of Nursing interventions, that most of them were carried out focused on adult health,

being only a validation study of interventions for the care of pediatric patients. It is also noted that the totality (of the works) presented level of evidence V,¹¹ as shown in the figure 4.

Year and referrence	Specialty	Nursing	Level of evidence
2007 ¹⁵	Child and Adolescent Health	Ineffective airway clearance	V
2010 ¹⁶	Adult Health	Deficit in self-care: bathing and / or hygiene Impaired physical mobility Risk of infection	V
2011 ¹⁷	Adult Health	Impaired skin integrity Deficient knowledge Ineffective control of the therapeutic regimen	V
2012 ¹⁸	Adult Health	Risk of impaired skin integrity	V
2013 ¹⁹	Adult Health	Impaired physical mobility	V
2013 ²⁰	Adult Health	There was no nursing diagnosis	V
2016 ²¹	Adult Health	There was no nursing diagnosis	V
2016 ²²	Adult Health	Impaired physical mobility	V

Figure 4. Characterization of articles by specialty, nursing diagnosis and level of evidence. Campinas (SP), Brazil, 2018.

The studies presented a total of ten Nursing Diagnoses; of these ND, 30% (n = 3) were impaired physical mobility; 10% (n = 1) had a diagnosis of Risk of infection; 10% (n = 1), of ineffective airway clearance; 10% (n = 1), Deficit in self-care: bathing and / or hygiene; 10% (n = 1), of deficient knowledge; 10% (n = 1), ineffective control of the therapeutic regimen; 10% (n = 1), impaired skin integrity and 10% (n = 1), impaired skin integrity risk. It is observed that two articles did not use any nursing diagnosis in which one study identified interventions and activities developed by nurses in a chemotherapy center and the other worked with interventions for patients in palliative care admitted to an Intensive Care Unit.

DISCUSSION

It is noticed that, in 2007, there was only one published study and, in the following years, 2008 and 2009, there was no publication, however, after 2010, there was an increase in the number of publications until the year 2016, which can be justified by the publication of the 5th edition of the NIC Nursing Intervention Classification in 2010⁵, indicating an increase in interest in the research of nursing validations focused on nursing interventions.⁶

In recent years, there has been an increase in Brazilian production on this theme, reaffirming Nursing as a field of science, contributing to its development. Furthermore, it is shown by the quantitative growth of validation studies, a concern of the academic area of Nursing to increase the production of knowledge in Nursing care in order to subsidize its praxis.²³

It is explained that this quantitative growth is accompanied by an increase in concern about the quality of these studies, evaluating the journals in which they were published. The studies were published, for the most part, in journals with Qualis A1 and the rest in Qualis A2. This demonstrates that these studies have a great

impact and are relevant, as their publication in these journals makes the intellectual production of nurses visible in Brazil.²⁴

It is noted, regarding the choice of judges, that there were variations in the number of judges for the validation of nursing interventions, and a part of the studies had less than 20 judges to validate nursing interventions. It is also noted that the selection criteria of the evaluators are also not explicit.

This reduced number would be justified if individuals were in fact experts, as recommended by Guimarães, 25 who stated the need for them to have knowledge of the studied phenomena, demanding greater rigor and explicit criteria for this. In this study, the evaluators were also named as a specialist nurse, whose definition is "a person with great knowledge, skills based on research and clinical experience", however, when analyzed; this statement is not very plausible from the perspective of specialized literature.

A minimum of 50 judges was determined, as appropriate, by Fehring, but without explicit statistical justification. Studies have also shown the difficulty of reaching this number of subjects due to the impossibility of 50 subjects being found and evaluating the material sent, in several studies, the researchers justified the reduced number mainly by the non-return of the instruments analyzed in a timely manner by the evaluators, who stated that they did not have enough time for academic and assistance commitments.²⁶

Usually, to include this number of evaluators, judges who present minimum recommended criteria, favoring academic expertise and underestimating the clinic, although adaptation of the Fehring model, one of the most used models today, are already being used.²⁶⁻⁷

It is understood that the selection of specialists is one of the most critical points of validation studies, ²⁷ and the lack of uniformity has raised

great concerns for several authors, who have been creating suggestions about the profile of a nurse who can be considered an expert.²⁵⁻⁷ It becomes extremely necessary that the care experience is valued, since daily contact with the phenomena under study allows nurses to identify what is relevant in each situation.²⁵

In a recent study, five years of experience were suggested as mandatory for nurses to be considered specialists. In addition, the specialists were classified as follows: Junior Specialist - minimum score of five points, clinical experience in the specific area of study of at least four years, being mandatory; *Master Expert* - score between six and 20 points; Senior Specialist - score greater than 20 points; knows both as a junior or a master specialist backed by years of experience, giving you senior status and, for each year of clinical experience or teaching / experience, an extra point must be added.²⁵

It is revealed that all the studies analyzed used Content Analysis as a validation method for nursing interventions. This method is currently being discussed, since the validation process is somewhat complex and only the opinion of a group does not guarantee that the results have great scientific accuracy, being always necessary to carry out the clinical validation stage.⁷

On the other hand, Content Analysis is configured as one of the stages of validation studies, reflecting the judgment of nurses inserted in fictitious clinical situations. It was suggested, for one study, to change the term content validation for Content Analysis, stating that this step is closer to a pre-analysis and that most clinical validation studies discard elements that had been validated in the content validation, which can be justified by the level of expertise of the judges selected for the study.⁷

In relation to the Nursing Diagnostics used, it is added that two articles did not use any ND, discussing only the interventions without relating them to the phenomenon studied. ²⁰⁻¹ Three studies were carried out with the diagnosis Impaired physical mobility, one for the study of mapping prescribed care for orthopedic patients, another for the study of patients with spinal cord injury and another for medical-surgical patients with impaired physical mobility.

The other ND used in studies in the Safety and Protection domain belonged and another diagnosis belonged to the Perception and Cognition domain, showing that there is a deficit in studies of Nursing interventions based on other diagnoses, covering other Nursing phenomena, which could bring benefits to validation research in Nursing.²⁸

It was made possible, by ND, the organization, based on concepts, of people's responses to the circumstances of life and health in which the nurse identifies and performs the treatment in

relation to the responsibilities he assumes for the results, that is, the diagnoses are a reference point to guide nursing interventions.²⁹

There are serious implications for not using the ND to plan the interventions, which may cause a decrease in the quality of care, as the Nursing Diagnosis is a stage of the NP, that the construction of a care plan based on this phenomenon and without accurate diagnoses makes nursing interventions limited, as well as nursing's contribution to patients' health.²⁹

In relation to the areas studied, as well as in another study, a large number of studies in the area of adult health and few studies in the area of child health were observed, highlighting the need for research aimed at other areas, ensuring an improvement in the care of nurses for all their patients.²³

It is stated that, in this research, all articles had evidence level 5. Evidence can be classified into five levels according to their strength: level 1 - strong evidence from at least one systematic review of multiple randomized studies welldesigned controls; level 2 - strong evidence from at least one randomized controlled trial of appropriate design and size; level 3 - evidence from well-designed studies without randomization, single pre and post group, time series or case control cohort; level 4 - evidence of welldesigned, non-experimental studies conducted in more than one research center or group; level 5 opinions of respected authorities based on clinical evidence, descriptive studies or expert committee reports.¹¹

Due to the current trend in scientific production, the importance of evidence-based practice is emphasized; therefore, decision making about the most accurate care for patients should be based on the best current scientific evidence, always associated with the professional's expertise and preferences of the patient. However, due to the current classifications of the levels of scientific evidence, some methodological research designs, such as systematic reviews with meta-analysis of randomized clinical trials, systematic reviews with meta-analysis and randomized clinical trials. ¹¹

In Nursing, evidence provides the validation of logical foundations, based on clinical practice, which change specific aspects of the practice in which there is an interest in the development of studies on interventions that are effective for the client's well-being.³⁰

Thus, it is believed that the randomized controlled study is the most appropriate research design to assess the effectiveness of nursing interventions, as it allows patients to be random and ensures that any difference found in the results happened due to the investigated intervention.³⁰

It becomes possible, taking this into account, to see that, even with an increase in the trend of research in Nursing, there is still a need for nurses to develop skills that enhance their clinical judgment and enable the obtaining, interpretation and integration of evidence from research with data and clinical observations of the client, more accurately and with a higher level of evidence, which will enable an improvement in the quality of care provided.³⁰

It was emphasized, by scholars on the subject, the need for a viable alternative to attest the validity of Nursing interventions, and it is mandatory to subject them to validation through advanced statistical methods to foster their relevance and robustness.⁶⁻⁷

This study was limited by the need to use secondary sources of literature to discuss some topics and explain some concepts, using classic studies on the theme with more than five years of publication.

CONCLUSION

It was possible to identify, through the integrative literature review, the production of knowledge about validation studies of Nursing interventions today, showing that, after the publication of the 5th edition of the NIC, there was an increase in the production and publication of these works. It was found that there are knowledge gaps in relation to criteria for choosing judges to carry out these works.

All works were prepared using the content and evidence validation method V. It was observed that a part of the studies did not use the ND to guide the choices of the NI, which could compromise the scientific accuracy of the results. The knowledge gap has become clear regarding the validation of interventions for collective health and child health.

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REFERENCES

- Conselho Federal de Enfermagem. Resolução n° 358/ 2009. Dispõe Sistematização da Assistência de Enfermagem e a implementação do Processo de Enfermagem em ambientes públicos ou privados, em que ocorre o cuidado profissional de Enfermagem, e dá outras providências [Internet]. Brasília: COFEN; 2009 2018 10]. [cited Aug Available http://www.cofen.gov.br/resoluo-cofen-3582009_4384.html
- 2. Toney-Butler TJ, Thayer JM. Nursing Process. StatPearls [Internet]. Treasure Island: StatPearls Publishing; 2020 [cited 2020 Jan 21]. Available

from:

https://www.ncbi.nlm.nih.gov/books/NBK499937/ #article-26037.s1 .

- 3. Stonehouse D. Understanding the nursing process. Br J Healthcare Assist. 2017 Aug;11(8). DOI: 10.12968/bjha.2017.11.8.388
- 4. Vieira RQ, Saito KAM, Santos AE. Primeiras discussões sobre o diagnóstico de enfermagem em periódicos (1956- 1967). Hist Enferm Rev Eletrônica [Internet]. 2018 Nov [cited 2020 Jan 12];9(2):95-107. Available from: http://here.abennacional.org.br/here/v9/n2/a1.p
- 5. Bulechek GM, Butcher HK, Dochterman JM, Wagner CM. Classificação das intervenções em enfermagem. 6th ed. Rio de Janeiro: Elsevier; 2016.
- 6. Othman EH, Shatnawi F, Alrajabi O, Alshraideh JA. Reporting nursing interventions classification and nursing outcomes classification in nursing research: a systematic review. Int J Nurs Knowl. 2019 Nov;31(1):19-36. DOI: 10.1111/2047-3095.12265
- 7. Lopes MVO, Silva VM, Araujo TL. Métodos de pesquisa para validação clínica de conceitos diagnósticos. PRONANDA: programa de atualização em diagnósticos de enfermagem. Porto Alegre: Artmed; 2013.
- 8. Hopia H, Latvala E, Liimatainen L. Reviewing the methodology of an integrative review. Scand J Caring Sci. 2016 Dec;30:662-9. DOI: 10.1111/scs.12327
- 9. Santos CMC, Pimenta CAM, Nobre MRC. The PICO strategy for the research question construction and evidence search. Rev Latino-Am Enfermagem. 2007 June;15(3):508-11. DOI: 10.1590/S0104-11692007000300023.
- 10. Ursi ES, Gavão CM. Perioperative prevention of skin injury: an integrative literature review. Rev Latino-Am Enfermagem. 2006 Jan/Feb. 14(1):124-31. DOI: 10.1590/S0104-11692006000100017
- 11. Grupo Anima. Manual de revisão bibliográfica sistemática integrativa: a pesquisa baseada em evidências [Internet]. Belo Horizonte: Grupo Anima Educação; 2014 [cited 2018 Aug 10]. Available from:

http://biblioteca.cofen.gov.br/wp-content/uploads/2019/06/manual_revisao_bibliografica-sistematica-integrativa.pdf

- 12. NANDA Internacional. Diagnóstico de enfermagem da NANDA: definições e classificação 2015-2017. Porto Alegre: Artmed; 2015.
- 13. Mother D, Liberati A, Tetzlaff J, Altman DG. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PloS Med. 2009 July;6:1. DOI: 10.1371/journal.pmed.1000097

- 14. Ministério da Educação (BR), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. Plataforma Sucupira: Qualis Periódicos [Internet]. Brasília: Ministério da Educação; 2019 [cited 2019 Aug 04]. Available from: http://qualis.capes.gov.br/webqualis/index.faces
- 15. Monteiro FPM, Silva VM, Lopes MVO, Araujo TL. Nursing conducts for the care of children with respiratory infection: validation of a guideline. Acta Paul Enferm. 2007 Oct/Dec;20(4):458-63. DOI: 10.1590/S0103-21002007000400012
- 16. Almeida MA, Pergher AK, Canto DF. Validation of mapping of care actions prescribed for orthopedic patients onto the nursing interventions classification. Rev Latino-Am Enfermagem. 2010 Jan/Feb; 18(1):116-23. DOI: 10.1590/S0104-11692010000100018
- 17. Teixeira CRS, Becker TAC, Citro R, Zanetti ML, Landim CAP. Validation of nursing interventions in people with diabetes mellitus. Rev Esc Enferm USP. 2011 Mar;45(1):168-74. DOI: 10.1590/S0080-62342011000100024
- 18. Bavaresco T, Lucena AF. Nursing Intervention Classifications (NIC) validated for patients at risk of pressure ulcers. Rev Latino-Am Enfermagem. 2012 Nov/Dec;20(6):1109-16. DOI: 10.1590/S0104-11692012000600013
- 19. Andrade LT, Chianca TCM. Validation of nursing interventions for patients with spinal cord injury and impaired physical mobility. Rev Bras Enferm. 2013 Sept/Oct;66(5):688-93. DOI: 10.1590/S0034-71672013000500008
- 20. Souza CA, Jericó MC, Perroca MG. Nursing intervention/activity mapping at a Chemotherapy Center: an instrument for workload assessmen. Rev Latino-Am. Enfermagem [Internet]. 2013 Mar/Apr; 21(2): [08 telas]. DOI: 10.1590/S0104-11692013000200004
- 21. Santos EC, Oliveira ICM, Feijão AR. Validation of a nursing care protocol for patients undergoing palliative care. Acta Paul Enferm. 2016 July/Aug;29(4):363-73. DOI: 10.1590/1982-0194201600051
- 22. Costa RB, Santos ER, Lopes CT, Bergamasco EC. Adequacy of the Activities in the nursing intervention exercise therapy: ambulation for medical-surgical patients with impaired physical mobility. Int J Nurs Knowl. 2016 Oct; 27(4):201-4. DOI: 10.1111/2047-3095.12114
- 23. Ribeiro MAS, Vedovato TG, Lopes MHBM, Monteiro MI, Guirardello EB. Validation studies in nursing: integrative review. Rev RENE [Internet]. 2013 Feb [cited 2018];14(1):218-28. Available from:
- http://periodicos.ufc.br/rene/article/view/3359/ 2597
- 24. Frigeri M, Monteiro MAS. Qualis periódicos: indicador da política científica no Brasil? <u>Estud.</u> <u>sociol</u> [Internet]. 2014 July/Dec [cited 2020 Jan

- 12];19(37):299-315. Available from: https://periodicos.fclar.unesp.br/estudos/article/view/6266/5227
- 25. Guimarães HCQCP, Pena SB, Lopes JL, Lopes CT Barros ALBL. Experts for validation studies in nursing: new proposal and selection criteria. Int J Nurs Knowl. 2016 July;27(3):130-5. DOI: 10.1111/2047-3095.12089.
- 26. Tolentino GS, Bettencourt ARC, Fonseca SM. Construction and validation of an instrument for nursing consultation in outpatient chemotherapy. Rev Bras Enferm. 2019 Mar/Apr; 72(2):409-17. DOI: 10.1590/0034-7167-2018-0031
- 27. Melo RP, Moreira RP, Fontenele FC, Aguiar ASC, Joventino ES, Carvalho EC. Criteria for selection of experts for validation studies of nursing phenomena. Rev RENE [Internet]. 2011 [cited 2020 Jan 12];12(2):424-31. Available from: http://periodicos.ufc.br/rene/article/view/4254
- 28. Oliveira AM, Duran ECM. Content validation of nursing diagnosis: an integrative review. J Nurs UFPE on line. 2015 Sept; 9(8):9385-92. DOI: 10.5205/reuol.6812-75590-1-ED.0908sup201507
- 29. Ferreira CL, Prado PR, Bettencourt AR, Amaral GLG. Assistência de enfermagem em Unidade de Terapia Intensiva: mapeamento dos diagnósticos de enfermagem. South Am J Bas Edu Tec Technol [Internet]. 2020 Jan [cited 2020 Jan 31];6(2):396-13. Available from: https://periodicos.ufac.br/index.php/SAJEBTT/article/view/2940
- 30. Tavares APC, Silva JLL, Silva JVL, Soares LM, Costa FS, Chrizóstimo MM. Analysis of scientific production of surgical site infection: an integrative review. Rev Enferm UFPI [Internet]. 2019 Apr [cited 2020 Jan 31]; 8(2):60-5. Available from: https://revistas.ufpi.br/index.php/reufpi/article/view/7871/pdf

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