

ORIGINAL ARTICLE

Nursing Outcomes Classification: Knowledge among nurses in a university hospital

HIGHLIGHTS

1. NOC incorporation to the clinical practice is incipient.
2. The professional showed low familiarity with the Nursing Outcomes Classification.
3. Despite that low familiarity, the professionals recognize the relevance of the standardized language.
4. The nurses report insecurity when using the Nursing Outcomes Classification.

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ABSTRACT

Objective: To analyze nurses' knowledge about the Nursing Outcomes Classification in a university hospital from Teresina, Piauí. **Method:** A qualitative study grounded on Bardin's Content Analysis and guided by the Consolidated Criteria for *Reporting Qualitative Research*. The participants were 26 nurses working in hospitalization units, selected for convenience and sampled as per theoretical saturation. The data were collected between September and October 2025 by means of semi-structured interviews that were recorded and transcribed. The data were processed in *Interface de R para as Análises Multidimensionais de Textos e de Questionários* by means of Descending Hierarchical Classification and similarity analysis. **Results:** In all, 88.95% leverage of segments was recorded, distributed into six classes. Organizational and structural barriers were evidenced, such as overload, bureaucratization, limitations inherent to the systems and insufficient training. Despite that, the potential of the classification to organize care, guide planning, assess outcomes in patients, families and communities and support assistance-related goals was acknowledged. **Final considerations:** Although relevant, nurses' knowledge about the Nursing Outcomes Classification is still incipient in the care practice and requires investments in training and organizational changes in public services.

DESCRIPTORS: Nursing; Nurses, Male; Nursing Process; Standardized Nursing Terminology; Knowledge.

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INTRODUCTION

The Nursing Process (NP) is a method that organizes, guides and qualifies the professional practice, ensuring comprehensive, ethical and evidence-grounded care¹. After issuance of COFEN Resolution No. 736/2024¹ revoking Resolution No. 358/2009², the NP started to be mandatory in all health care settings (both public and private), reasserting its five inter-related stages: Assessment, Diagnosis, Planning, Implementation and Evaluation.

With a view to improving clinical judgement and assistance documentation and quality, the role of Standardized Nursing Taxonomies (SNTs) stands out, including the International Classification for Nursing Practice (ICNP), NANDA International (NANDA-I), the Nursing Interventions Classification (NIC), the Nursing Outcomes Classification (NOC), the Clinical Care Classification (CCC) and the Omaha Community Health System³⁻⁴.

The NP is a relevant technological strategy to qualify the care process. In its 7th edition (2024), it included 612 outcomes and more than 11,500 indicators, evaluated by means of *Likert*-type scales and offering consistent support to document and assess Nursing care. Using this taxonomy favors professional language standardization, clinical judgment improvements and measuring the effectiveness of Nursing interventions⁵.

Despite its potentialities, there is still few studies on nurses' knowledge about the NOC in hospital contexts, limiting the creation of training strategies or of those targeted at supporting its systematized adoption⁶. In addition, implementing the NOC in assistance services faces various obstacles, such as insufficient human resources, unfavorable working conditions, unawareness regarding the taxonomy among clinical nurses, training deficits, difficulties integrating it to information systems and medical care centrality to the detriment of the Systematization of Nursing Care⁷⁻⁸, which impairs comprehensive assistance⁴ and evidences gaps in nurses' knowledge in hospital contexts⁹.

The institution researched has a Nursing Process Commission and uses the NANDA and NIC taxonomies in its electronic medical records, which is a favorable scenario to incorporate the NOC. Thus, this study aimed at analyzing nurses' knowledge about the Nursing Outcomes Classification in a university hospital from Teresina, Piauí.

METHOD

This is a descriptive and exploratory study with a qualitative approach, conducted according to the *Consolidated Criteria for Reporting Qualitative Research* (COREQ) guideline¹⁰. Bardin's Content Analysis¹¹ was used, following the Pre-analysis, Exploration of the material, Coding/Treatment of the results, and Inference and interpretation stages. Propositional discourse analysis stood out, targeted at examining the semantic content and allowing to identify and relate proposals, understand thought patterns and infer the participants' intentions.

The team conducting the study was comprised by a guiding professor and a student attending the Bachelor's in Nursing course, responsible for data collection and analysis. The undergraduate student had previous experience with qualitative interviews and was not related to the participants in any way, in addition to having been duly trained before initiating data collection. The professional nurses were informed about the study objective before initiating data collection.

The study was conducted between September and October 2025 in a University Hospital from Teresina, Piauí (Brazil). The participants were recruited by means of in-person invitations made by the student-researcher at the hospitalization units of the aforementioned hospital, encompassing the morning, afternoon and night shifts.

The sample was selected for convenience considering the following inclusion criteria: being nurses; working in the hospitalization units; and being members of the Nursing Process Commission. Professionals on leave, holidays or away for other reasons were not included.

The participants were duly informed about the objectives, procedures and ethical aspects, and those who agreed to voluntarily take part in the research signed a Free and Informed Consent Form (FICF). Participants were included until reaching theoretical saturation, when their answers started to repeat¹².

A pilot test was applied prior to data collection in order to adapt the instrument. The interviews were conducted in private places made available in the workplace itself, ensuring anonymity. All of them were recorded in digital audio using a mobile device (smartphone), lasted a mean of seven minutes and filed notes were simultaneously taken down. No interviews were repeated and the transcriptions were made automatically in *Microsoft OneNote*, version 16.0.19B22.20114. Once transcribed, the interviews were subjected to a thorough reading stage to verify accuracy and correct possible inconsistencies resulting from the automated process; subsequently, they were forwarded to the participants for data validation.

The data corresponding to the characterization of the professionals were organized in *Microsoft Office Excel 2016*, allowing properly structuring all the information and performing the descriptive analysis. In the Pre-analysis stage, the transcribed data were organized into a single text *corpus* and skimmed to assist in preparing the text *corpus* and their subsequent processing in the IRaMuTeQ (*Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires*) software (version 0.8 alpha 7).

In the Exploration of the material stage, the interviewees were coded using the letter 'e' (*entrevistado* in Portuguese), followed by the corresponding Arabic number (e.g.: e_1). The acronym 'sex' was adopted for gender (*sexo* in Portuguese), followed by an Arabic number: 1 for female and 2 for male. The participants' age was coded with the prefix 'ida' (*idade* in Portuguese) and grouped into categories: 1- From 20 to 39 years old; 2- From 40 to 49 years old; and 3- From 50 to 60 years old. This enabled segmenting the material into Elementary Context Units and identifying lexical classes as per content similarity.

The Descending Hierarchical Classification (DHC) technique and similarity analysis were used for the analysis. The DHC allowed grouping similar terms based on the statistical Chi-square (X^2) test and the similarity analysis, which identifies connections between words from their co-incidence¹³.

Finally, the Treatment of the results and Inference and interpretation stages were conducted (as proposed by Bardin). The data obtained from the analyses were organized, which allowed assembling the thematic categories and understanding the meanings attributed by the participants.

The final *corpus* consisted of 25 text materials, totaling 12,010 instances segmented into 344 Elementary Context Units, leveraging 306 segments (88.95%) in the software, which ensured analytical soundness in the study. The results were presented by means of a dendrogram and a graph, visually representing the relationships among the classes and the structure corresponding to the nurses' perceptions about the NOC.

The study was approved by a Research Ethics Committee under Opinion No. 7,818,475, in full compliance with national Health Council resolutions No. 466/12 and No. 510/16 and with Law No. 14,874. The anonymity, autonomy, non-maleficence and beneficence principles were guaranteed, identifying the participants by means of standardized codes.

RESULTS

A total of 26 interviews were conducted; four nurses refused to participate due to lack of time or for not knowing about the theme. There was predominance of female participants with 20 (76.92%) and aged from 40 to 49 years old: 14 (53.84%). In relation to academic training, *lato sensu* graduate studies at the specialization level prevailed with 24 (92.31%), as described in Table 1.

Table 1. Characterization of the nurses according to their professional profiles (n=26). Teresina, PI, Brazil, 2025

Variables		n	%
Gender	Female	20	76.92
	Male	6	23.08
Age	20-39 years old	9	34.62
	40-49 years old	14	53.84
	50-60 years old	3	11.54
	0-9 years	2	7.69
Training time	10-19 years	22	84.62
	20-30 years	2	7.69
	Specialization	24	92.31
Graduate studies	MSc	2	7.69
	PhD	0	0
Service time at HU-UFPI	1 month - 2 years and 12 months	7	26.92
	3 years - 5 years and 12 months	6	23.08
	6 years - 12 years	13	50

Source: The authors (2025).

The dendrogram (Figure 1) generated by the DHC revealed two main branches: left and right, which grouped different thematic classes correlated by means of the similarity between them.

In the left branch of the dendrogram, we can see classes 4 and 5, both derived from the same node in Class 2, which in turn emerged from a node correlated to Class 1. Classes 6 and 3 were identified in the right branch; they also originated from the same node, indicating thematic proximity between them.

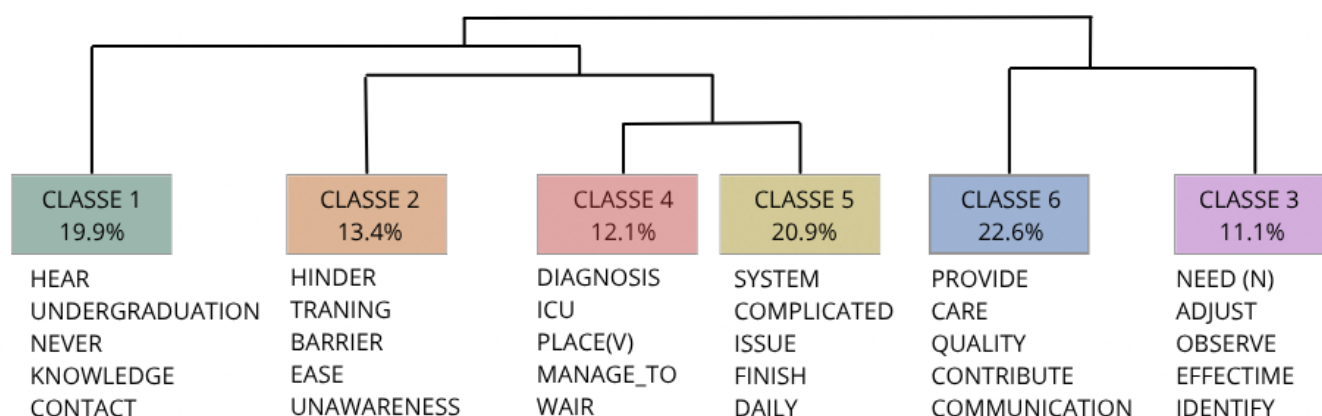


Figure 1. Dendrogram corresponding to the Descending Hierarchical Classification. Teresina, PI, Brazil, 2025

Source: The authors (2025).

The classes were distributed, grouped and renamed, giving rise to three thematic categories that are presented in Chart 1:

Chart 1. Distribution of the classes into thematic categories. Teresina, PI, Brazil, 2025

Categories	Class	Scope
Category 1: NOC appropriation and use	Class 1	Knowledge about the NOC
	Class 2	NOC use adherence
Category 2: NOC application in the care process	Class 3	Care planning based on the NOC
	Class 4	Integrated care coordination with the NOC
Category 3: Assessment and effects of the NOC on the care practice	Class 5	Risk identification when applying the NOC
	Class 6	Impacts exerted by the NOC on the assistance provided

Source: The authors (2025).

NOC appropriation and use

Entitled *NOC appropriation and use*, thematic category 1 was comprised by classes 1 and 2, focusing on nurses' knowledge about the NOC and on adhering to using it in the routine care practice.

Class 1 represented 19.9% of the entire *corpus*, was characterized by terms such as "hear", "graduation" and "knowledge", and was designated as *Knowledge about the NOC*. The testimonies indicate that nurses' familiarity with the taxonomy was predominantly related to their academic training period, as can be seen in the following excerpts:

*I've never heard about or used the NOC, I didn't even know the NOC structure or concept, but I'm somewhat familiar with NANDA and NIC. (*e_18*sex_02*ida_02).*

*I've never heard about or used the NOC in my professional practice, but I did hear about it in my undergraduate studies. The NOC assists in the Systematization of Nursing Care issue, in the intervention thing. (*e_4*sex_01*ida_01).*

Class 2 represented 13.4% of the entire *corpus*, gathered words such as "hinder", "training", "barrier" and "ease", and was given the name of "NOC use adherence". The testimonies evidence that use of the taxonomy is influenced by organizational, structural and training-related factors, as expressed in the excerpts below:

*The factors that ease or hinder using the NOC at work, perhaps it's the routine rush [...]. (*e_3*sex_02*ida_02).*

*The factors that hinder applying the NOC would be bureaucracy [...]. (*e_11*sex_02*ida_02).*

*A factor that would ease its use a lot would be offering more detailed explanation and specific training options, it's not enough to make the tool available [...]. (*e_13*sex_01*ida_01).*

*The factors that ease using the NOC would be the issue of staffing, having a reasonable number of nurses and technicians, then we'd manage to offer better quality care [...]. (e_2*sex_01*ida_02).*

NOC application in the care process

Entitled *Applying the NOC in the care process*, thematic category 2 encompassed classes 3 and 4, addressing how the NOC supports the assistance practice and the way in which the care process has been influenced by using standardized Nursing outcomes. Class 3 represented 11.1% of the entire *corpus*, was characterized by words such as "need(n)", "adjust", "observe", "effective" and "identify", and was called *Care planning based on the NOC*. This class gathers elements related to the routine application of the taxonomy in the Nursing work process, highlighting its potential to devise more individualized and effective interventions. This aspect can be seen in the following testimonies:

*To ensure the patients that the care they receive is more efficient and adapted to their specific needs [...]. (*e_14*sex_01*ida_01).*

*If an out outcome is negative, for example, we could prepare a new care plan, adjusting actions and improving care effectiveness. (*e22*sex_01*ida_01).*

Class 4 represented 12.1% of the entire *corpus*, consisted in terms such as "diagnosis", "ICU" and "place(v)", and was designated as *Care coordination integrated with the NOC*. This class evidences the relationship between the NOC and care organization in different assistance scenarios, as shown in the excerpts below:

*Patients at risk of pressure ulcers, we prescribe decubitus change and implementing that care measure every two or three hours. (*e_9*sex_01*ida_02).*

*[...] I really wanted that we could implement the NOC for everyone here in the University Hospital, not only here in the ICU. (*e_12*sex_02*ida_01).*

Assessment and effects of the NOC on the care practice

Entitled *Assessment and effect of the NOC on the care practice*, thematic category 3 consisted of classes 5 and 6 and addressed identifying risks inherent to its application and the impacts of using the NOC in Nursing assistance. Class 5 represented 20.9% of the entire *corpus*, was characterized by words such as "system", "complicated" and "issue", and was given the following name: *Identifying the risk inherent to applying the NOC*. This class evidences weaknesses related to the working conditions and to insufficient dexterity regarding the taxonomy, which can hinder its effective application in the assistance practice. Such perception is expressed in the testimonies below:

*[...] We really prescribe care measures, but in the everyday rush and despite the number, there are many demands. (*e_2*sex_01*ida_02).*

*Then we end up falling slightly short in that issue of knowledge, as we don't see it every day [...]. (*e_4*sex_01*ida_01).*

In the right branch, Class 6 represented 22.6% of the entire *corpus*, consisted in terms such as "provide", "care(n)" and "quality", and was called *Impacts exerted by the NOC on the assistance provided*. This class expresses nurses' perception as for the contribution made by the NOC to qualifying care and to following-up assistance outcomes.

*[...] Using a standardized language in the clinical practice exerts a direct influence on quality of the care provided, contributing for care measure to be organized, safe and effective. (*e_26*sex_01*ida_03).*

*Depending on the patient, the evaluation we make every day is going to tell us if that care is actually being provided. (*e_9*sex_01*ida_02).*

In the similarity analysis (Figure 2), we can see clusters arising from the connections established between the terms, where the edges represent the intensity of those relationships: the thicker the edges, the higher the association strength between the words. In this context, it was identified that the central terms "patient" and "NOC" presented the most significant connections in the graph.

Organized according to proximity degree and co-incidence frequency, the words "practice(v)", "knowledge", "use(v)" and "outcome" derive from the term "NOC". In turn, "care" and "assistance" stem from "patient", with "care" presenting a thicker edge indicating greater centrality, in addition to establishing a new connection with the term "nursing".

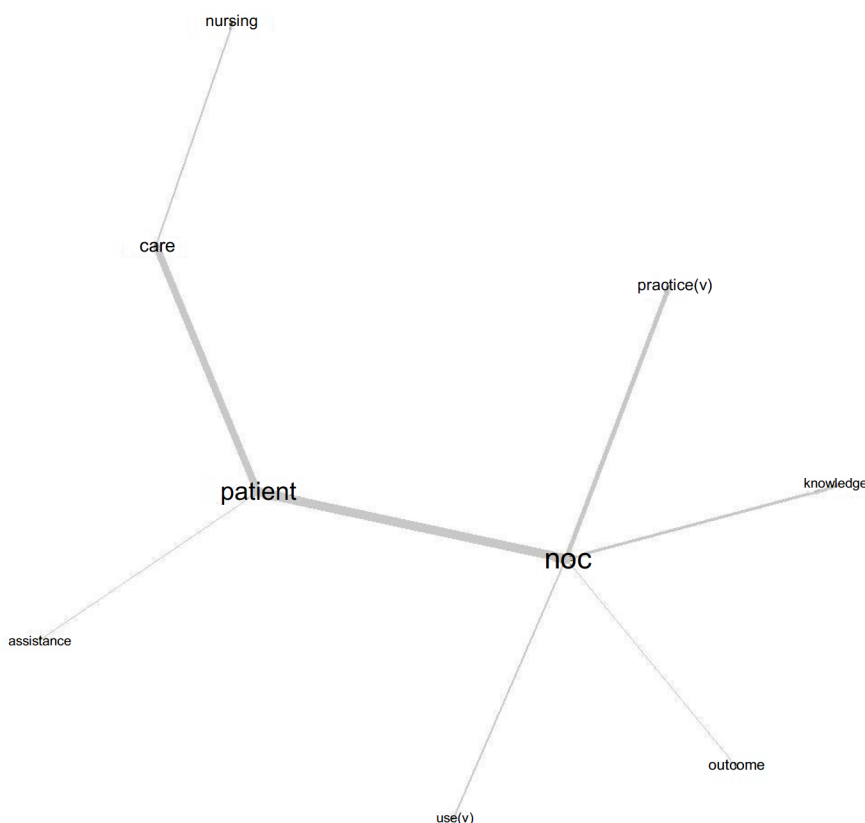


Figure 2. Similarity analysis graph. Teresina, PI, Brazil, 2025

Source: The authors (2025).

The similarity graph analysis presents the NOC as a central element, highlighting its association with the term "patient", which shows its relationship with the assistance practice mediated by using the instrument. The connections with the terms "practice(v)", "knowledge", "outcome" and "use(v)" are less intense in the graph, indicating lesser proximity between these elements and the NOC in the testimonies analyzed. These findings describe aspects related to understanding and using the tool in the assistance practice context.

DISCUSSION

This study analyzed what nurses from a university hospital in the Brazilian Northeast region know about the NOC. Awareness about SNTs among public hospital nurses was also considered superficial at the international level. Despite that, the professionals admitted that using taxonomies is fundamental for Nursing care quality, although their application in the clinical practice is still limited¹⁴.

This scenario can reflect absence of institutional policies targeted at implementing SNTs, as well as insufficient provision of educational programs training nurses to their use in the clinical practice¹⁵. Shortage of nurses and high workloads in health services are other factors, as they are conditions that hinder operationalizing the Nursing Process and using SNTs. These findings suggest deficits in consolidating SNTs throughout training and the professional practice, especially regarding the teaching-health services articulation¹⁶. In addition, another study identified similar risks in specialized units like Burns, where shortage of human resources and lack of knowledge also impaired planning and evaluation of Nursing outcomes¹⁷.

This discussion corroborates the results obtained in other studies, which showed the extent to which Nursing students used SNTs in the clinical practice. These surveys pointed out that NANDA-I Nursing diagnoses were properly presented in 92% of the cases, whereas NOC outcomes were only explicitly stated in 22% of the cases. NIC interventions corresponded to proper taxonomy activities in 61% of the cases, concluding that the SNTs were inconsistently used by the Nursing students, who showed more dexterity in identifying NANDA-I diagnoses and lower competence in specifying NOC outcomes¹⁸.

Should consistent SNT use constitute an educational objective, it becomes necessary for teachers in the clinical practice field to promote continuous use of these taxonomies and provide feedback whenever the students prepare case studies, encouraging using standardized language and its incorporation to the NP. In addition to that, a systematic approach to teaching the relationships between diagnoses, NIC interventions and NOC outcomes will only be possible if the professors explain them during the teaching-learning process¹⁸.

Furthermore, if educators fail to incorporate SNT use to Nursing curricula and if hospitals do not adopt information systems in Nursing based on standardized languages, it becomes difficult to prepare students for a clinical practice grounded on the NP. This disconnection between the academic and assistance contexts exerts a direct influence on the development of critical thinking and clinical reasoning in future professionals, something essential for the NP¹⁸.

The results of this study reinforce that knowledge about and use of the NOC depend on multiple factors related both to undergraduate training and to the conditions in health services, including time availability, institutional support, permanent education and an organizational culture capable of encouraging and easing incorporating SNTs to the clinical practice to operationalize the NP.

In addition to the training aspects, the structural and organizational ones exert a direct influence on NOC use. The time required to implement the NP and use SNTs, dissatisfaction with digital tools linked to electronic medical records and limited practical application of systems in the routine can be barriers to using the NOC in the clinical practice¹⁹. These elements are in line with a study which highlights that the effective implementation of taxonomies depends on ongoing education, institutional support, gradual implementation and intuitive electronic systems, with efficient mechanisms for searching or customizing terms²⁰. In addition, assistance models that strengthen nurse-patient bonds favor care continuity and applying taxonomies in the clinical practice¹⁸.

Assessing health outcomes is fundamental in the assistance context. However, outcomes in health services are difficult to define, especially due to their heterogeneity. This definition becomes even more complex in Nursing. Such difficulty limits enhancing professional autonomy, as documenting care constitutes an important instrument for its consolidation for enabling information exchanges, care continuity and evaluating the results achieved¹⁶. In this context, the need stands out to apply SNTs (including the NOC) in the care process and to implement all the NO phases, as well as documenting them in records to enhance clinical reasoning and decision-making.

The literature reinforces that the NOC indicators encompass the entire life cycle and various health conditions¹⁹, in addition to enabling professionals and patients alike to monitor the outcomes of Nursing interventions⁶. Not evaluating outcomes systematically impairs measuring the effectiveness of the interventions implemented, reducing the capacity for clinical monitoring, assistance continuity and qualified care documentation.

The possibility to monitor outcomes and adjust care actions is associated with improved care organization and with following-up the patients' clinical evolution. A study reinforces that the NOC indicators contribute to a systematic assessment of Nursing outcomes and to greater visibility of the contributions made by Nursing in the assistance provided²⁰. Outcomes are the core axis of the NOC, as they allow assessing changes in patients' health status and the effectiveness of Nursing interventions, enhancing quality and scientificity of the care provided⁵.

Using the NOC improves measuring Nursing outcomes and changes in care²¹. This potential is verified in a study conducted with orthopedic patients, where it was shown that applying the NOC enabled systematically monitoring clinical evolutions by assessing Nursing outcomes throughout the intervention. The authors highlight that this approach favors ongoing clinical follow-up, assessing the effectiveness of interventions and improving Nursing care quality²².

In another Brazilian study, the researchers analyzed how Nursing outcomes and indicators selected from the NOC were applied to evaluate patients with Obsessive-Compulsive Disorder (OCD) undergoing outpatient follow-up and verified that the NOC allowed more precisely identifying signs and symptoms presented by the subjects throughout the treatment established in the Cognitive-Behavioral Group Therapy (CBGT), favoring diagnostic accuracy and nurses' critical reasoning process, focused on decision-making about the outcomes expected and, thus, favoring safer evidence-based care and improving assistance quality²¹. In Palliative Care, NOC outcomes and indicators were capable of successfully evaluating the clinical evolution of cancer patients²³. Integrating standardized Nursing languages to assistance, educational and organizational contexts enhances clinical reasoning, qualifies documentation and favors evidence-based practices. In addition to standardizing records, these terminologies contribute to knowledge production and expand the visibility of Nursing contributions to the patients' outcomes²⁴.

Only with disclosing projects and by using SNTs as the NOC will be possible to observe the benefits expected in the patients' outcomes from implementing the NP. The knowledge acquired that way will enable developing evidence-based practices in Nursing²⁵.

The limitations of this study are related to having conducted the research in a single care scenario, which can restrict pertinence of the results for other institutional realities. In addition to that, for being a qualitative study, its findings reflect specific perceptions and experiences of participants in the context researched, lacking statistical generalization purposes. The scarcity of studies available to support the discussion on the theme is also noted, especially in relation to using the NOC in the care practice.

In addition, the interviewees' participation stands out among the limitations to conduct this study since, possible out of fear of professional judgments or due to the time restrictions imposed by the work routine, some participants gave shorter or less detailed answers, which may have influenced analytical depth of the interviews.

FINAL CONSIDERATIONS

In general, the findings obtained in this study evidence that nurses' knowledge about the Nursing Outcomes Classification (NOC) is still superficial and that it is oftentimes restricted to the undergraduation period, with a direct repercussion in its low use in the care practice. The DHC analysis revealed that adherence to the NOC is strongly influenced by organizational, structural and training-related aspects such as work overload, bureaucracy, limitations inherent to computer systems and insufficient training options. In addition to that, risk associated to applying the taxonomy were identified, especially related to insufficient conceptual dexterity and to the working conditions, which can impair planning and systematic assessment of Nursing outcomes.

On the other hand, the results also show the potential of the NOC to qualify the assistance provided, strengthen care planning and favor an ongoing assessment of patient-centered outcomes. The classes that evidenced the positive impacts exerted by the NOC highlight its contribution to care organization, to individualizing actions and to improving care quality, especially when integrated to the Nursing Process. Therefore, it is concluded that expanding NOC use depends on strengthening permanent education, institutional support and adopting strategies that ease its incorporation to the work routing, enabling this taxonomy to fulfill its central role of rendering Nursing care more systematized, measurable and scientifically grounded.

REFERENCES

1. Conselho Federal de Enfermagem (BR). Resolução COFEN nº 736, de 17 de janeiro de 2024. Dispõe sobre a implementação do Processo de Enfermagem em todo contexto socioambiental onde ocorre o cuidado de enfermagem [Internet]. Brasília, DF: COFEN; 2024 [cited 2025 Dec 12]. Available from: <https://www.cofen.gov.br/resolucao-cofen-no-736-de-17-de-janeiro-de-2024/>
2. Conselho Federal de Enfermagem (BR). Resolução COFEN nº 358, de 15 de outubro de 2009. Dispõe sobre a 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, DF: COFEN; 2009 [cited 2025 Dec 12]. Available from: <https://www.cofen.gov.br/resolucao-cofen-3582009/>
3. da Nóbrega MML, Garcia TR, Furtado LG, de Albuquerque CC, de Lima CLH. Nursing terminologies: from the NANDA taxonomy to the International Classification for Nursing Practice. Rev Enferm UFPE On Line [Internet]. 2008 [cited 2025 Nov 14];2(4):454-61. Available from: <https://doi.org/10.5205/reuol.333-11493-1-LE.0204200817>
4. Conselho Regional de Enfermagem da Bahia. Sistematização da assistência de enfermagem: um guia para a prática [Internet]. Salvador: COREN-BA; 2016 [cited 2025 Nov 14]. 25 p. Available from: https://www.coren-ba.gov.br/wp-content/uploads/2016/07/GUIA_PRATICO_148X210_COREN.pdf
5. Moorhead S, Swanson E, Johnson MJ, et al. NOC – Classificação dos resultados de enfermagem. 7. ed. Rio de Janeiro: GEN Guanabara Koogan; 2024.752p
6. Garbin LM, Rodrigues CC, Rossi LA, de Carvalho EC. Classificação de resultados de Enfermagem (NOC): identificação da produção científica relacionada. Rev Gaúcha Enferm [Internet]. 2009 [cited 2026 Apr 3];30(3):508-15. Available from: <https://seer.ufrgs.br/index.php/rgenf/article/view/8216/6971>

7. Klettemberg DF, Siqueira MD, Mantovani MF. Uma história do processo de enfermagem nas publicações da Revista Brasileira de Enfermagem no período 1960-1986. Esc Anna Nery [Internet]. 2006 [cited 2025 May 3];10(3):478-86. Available from: <https://doi.org/10.1590/S1414-81452006000300017>
8. Chae S, Oh H, Oberfrank NCF, Schulman-Green D, Moorhead S, Swanson EA. Linking nursing outcomes classification to the self- and family management framework. J Adv Nurs [Internet]. 2023 [cited 2026 Apr 3];79(2):832-49. Available from: <https://doi.org/10.1111/jan.15503>
9. Fernane FE, Boutib A, Refki I, Chergaoui S, Azizi A, Marfak A, Youlyouz-Marfak I. The impact of NANDA-I, Nursing Interventions Classification (NIC), and Nursing Outcomes Classification (NOC) on the improvement of nursing practice worldwide: systematic review. Int J Nurs Knowl [Internet]. 2025 [cited 2026 Apr 3];1-19. Available from: <https://doi.org/10.1111/2047-3095.70024>
10. Souza VRS, Marziale MHP, Silva GTR, Nascimento PL. Translation and validation into Brazilian Portuguese and assessment of the COREQ checklist. Acta Paul Enferm [Internet]. 2021 [cited 2025 Nov 14];34:eAPE02631. Available from: <https://doi.org/10.37689/acta-ape/2021AO02631>
11. Valle PRD, Ferreira JL. Content analysis in the perspective of bardin: contributions and limitations for qualitative research in education. Educ Rev [Internet]. 2025 [cited 2025 Nov 18];41:e49377. Available from: <https://doi.org/10.1590/0102-469849377>
12. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14. ed. São Paulo: Hucitec; 2014. 416 p.
13. de Souza MAR, Wall ML, Thuler ACMC, Lowen IMV, Peres AM. The use of IRAMUTEQ software for data analysis in qualitative research. Rev Esc Enferm USP [Internet]. 2018 [cited 2025 Nov 14];52:e03353. Available from: <https://doi.org/10.1590/S1980-220X2017015003353>
14. Afonso BQ, Ferreira NC, Butcher RCGS. Content validation of the symptom control outcome for heart failure patients in palliative care. Rev Gaúcha Enferm [Internet]. 2020 [cited 2025 Dec 19];41:e20190427. Available from: <https://doi.org/10.1590/1983-1447.2020.20190427>
15. Olatubi MI, Oyediran OO, Faremi FA, Salau OR. Knowledge, perception, and utilization of standardized nursing language (SNL) (NNN) among nurses in three selected hospitals in Ondo State, Nigeria. Int J Nurs Knowl [Internet]. 2019 [cited 2026 May 23];30(1):43-8. Available from: <https://doi.org/10.1111/2047-3095.12197>
16. Patiraki E, Katsaragakis S, Drelioni A, Prezerakos P. Nursing care plans based on NANDA, Nursing Interventions Classification, and Nursing Outcomes Classification: the investigation of the effectiveness of an educational intervention in Greece. Int J Nurs Knowl [Internet]. 2017 [cited 2026 May 23];28(2):88-93. Available from: <https://doi.org/10.1111/2047-3095.12120>
17. Shen M, Han L, Shi Z, Feng Z. Application and assessment of NNN linkages in liver transplant postoperative care: a prospective study. BMC Nurs [Internet]. 2025 [cited 2025 Dec 19];24:195. Available from: <https://doi.org/10.1186/s12912-025-02816-4>
18. Kautz DD, Kuiper R, Pesut DJ, Williams RL. Using NANDA, NIC, and NOC (NNN) language for clinical reasoning with the Outcome-Present State-Test (OPT) model. Int J Nurs Terminol Classif [Internet]. 2006 [cited 2026 May 23];17(3):129-38. Available from: <https://doi.org/10.1111/j.1744-618X.2006.00033.x>
19. Fennelly O, Grogan L, Reed A, Hardiker NR. Use of standardized terminologies in clinical practice: a scoping review. Int J Med Inform [Internet]. 2021 [cited 2025 Nov 14];149:104431. Available from: <https://doi.org/10.1016/j.ijmedinf.2021.104431>
20. Magalhães AMM, Juchem BC. Primary nursing: adaptando um novo modelo de trabalho no serviço de enfermagem cirúrgica do hospital de clínicas de Porto Alegre. Rev Gaúcha Enferm [Internet]. 2000 [cited 2025 Nov 14];21(2):5. Available from: <https://seer.ufrgs.br/rgenf/article/view/4313>
21. Pires AUB, Lucena AF, Behenck A, Heldt E. Results of the Nursing Outcomes Classification/NOC for patients with obsessive-compulsive disorder. Rev Bras Enferm [Internet]. 2020 [cited 2026 May 23];73(1):e20180209. Available from: <https://dx.doi.org/10.1590/0034-7167-2018-0209>

22. Silva MB, Almeida MA, Panato BP, Siqueira APO, Silva MP, Reisdorfer L. Clinical applicability of nursing outcomes in the evolution of orthopedic patients with Impaired Physical Mobility. Rev Latino-Am Enfermagem [internet]. 2015[cited 2026 May 29];23(1):51-8. Available from: <https://doi.org/10.1590/0104-1169.3526.2524>
23. Mello BS, Massutti TM, Longaray VK, Trevisan DF, Lucena AF. Applicability of the Nursing Outcomes Classification (NOC) to the evaluation of cancer patients with acute or chronic pain in palliative care. Appl Nurs Res [Internet]. 2016 [cited 2026 May 23];29:12-8. Available from: <https://doi.org/10.1016/j.apnr.2015.04.001>
24. Carvalho EC, Da Cruz DALM, Herdman TH. Contributions of standardized languages for knowledge production, clinical reasoning and clinical Nursing practice. Rev Bras Enferm [internet]. 2013[cited 2026 May 29];66(spe):134-41. Available from: <https://doi.org/10.1590/S0034-71672013000700017>
25. Eray K, Oflaz F. An evaluation of the use of the NANDA-NIC-NOC system in psychiatric nursing. J Psy Nurs [Internet]. 2023[cited 2026 May 23];14(3):270-79. Available from: <https://dx.doi.org/10.14744/phd.2022.01878>

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