

From teaching to practice: university extension and implementation of nursing care systematization in a university hospital

*Bruna Janning de Lima*¹,
*Luiza Soares Malagutti*²,
*Luana Patricia Weizemann*²,
*Renata Zanella*³,
*Rafaela Bramatti Silva Razini Oliveira*³,
*Maycon Hoffmann Cheffer*⁴,
*Terezinha Aparecida Campos*⁵

¹ Unimed. Cascavel, Paraná, Brasil.

² Fundação Hospitalar São Lucas. Cascavel, Paraná, Brasil.

³ Centro Universitário da Fundação Assis Gurgacz (FAG). Cascavel, Paraná, Brasil.

⁴ Universidade Federal do Paraná (UFPR). Toledo, Paraná, Brasil.

⁵ Universidade Estadual do Oeste do Paraná (Unioeste). Cascavel, Paraná, Brasil.

RESUMO

The quality of nursing care is essential and is closely linked to the systematization of nursing care (SNC), which requires training that integrates theory and practice, promoted through teaching, research, and university extension. The experience of nursing students participating in the formulation of the SNC through an extension project carried out in a university hospital in the State of Parana, Brazil, is presented. This is an experience report on an extension project conducted in collaboration between a higher education institution and a university hospital from August to December 2023. The project was coordinated by two faculty members and involved ten Nursing students from a private higher education institution in Paraná, Brazil. It was carried out in three stages: 1) preparation of a spreadsheet containing pre-existing nursing diagnoses and interventions included in the hospital's software; 2) training of students in the operating system, to prepare them to subsequently train nursing professionals; and 3) implementation of training sessions for nurses on the use of SNC within the institutional system. Participation in this project confirms SNC as a transformative element in nursing, fostering advancements in work processes and the quality of care, while highlighting the need for continuous monitoring and professional qualification.

Keywords: nursing care systematization; nurse; professional training; university extension.

Received: July 6, 2025

Accepted: July 22, 2025

Published: September 10, 2025



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Revista Enfermería Hereditiana.

Contribuição científica:

O artigo evidencia a viabilidade da implementação da SAE por meio de projetos de extensão, fortalecendo a integração entre formação acadêmica e prática. A experiência mostra que a capacitação de estudantes e profissionais qualifica o cuidado, otimiza processos e amplia a autonomia do enfermeiro diante das demandas de saúde.

INTRODUCTION

Considering the knowledge base and professional practice of Nursing, and in light of the continuous evolution within this context, ongoing monitoring of this process becomes imperative. This diligence is essential, as the goal is to establish conditions conducive to the application of processes, methods, or instruments capable of systematizing professional practice.

From this perspective, to regulate nursing practice, the Federal Nursing Council of Brazil (COFEN), through Resolution No. 358/2009, establishes guidelines for the Systematization of Nursing Care (SNC) and the implementation of the Nursing Process (NP). This procedure must be conducted systematically and deliberately across all settings—whether public or private—where nursing care is delivered (1).

Contextually, the NP is used as a methodological resource in nursing practice with the objective of achieving positive health outcomes in the care provided. In other words, NP represents the nurse's primary methodological working tool (2). It is an essential instrument for strengthening patient safety and fostering a culture of safety within healthcare services.

Regarding SNC, it is recognized as an activity exclusive to the nurse and must be carried out through the NP. This process, in turn, is divided into five distinct phases: the first corresponds to data collection (assessment); the second encompasses clinical reasoning, during which nursing diagnoses are identified; the third phase involves planning; subsequently, interventions are implemented; and finally, evaluation is performed (3).

It is noteworthy that SNC involves the detailed organization of interventions, encompassing a set of activities and structures that are interrelated in an articulated manner. In other words, it is a methodology that establishes the entire operational framework of the NP. This organization is grounded in scientific knowledge within the field, aiming to achieve the most effective possible care for patients and their families.

It is undeniable that nursing plays a fundamental role in patient care. Through SNC, it is possible to identify health problems early, prevent complications, monitor patient progress, and promote improved clinical outcomes. SNC facilitates communication among healthcare professionals, ensuring an integrated and collaborative approach to the care process. Furthermore, nursing autonomy is achieved through the application of professional knowledge and recognition of the quality of care provided.

From this perspective, this study aims to present the experience of nursing students regarding their participation in the development of SNC through an extension project in a teaching hospital located in the state of Paraná, Brazil.

This is justified by the importance of SNC across all healthcare contexts, as it plays an essential role in standardizing care procedures and ensuring a systematic and uniform approach to the planning, implementation, and evaluation of nursing practices.

Moreover, its relevance in promoting patient safety is highlighted, since the early identification of health problems enables the prevention of complications and effective monitoring of the patient's clinical status. Additionally, SNC significantly contributes to improving the quality of care by adopting a holistic, patient-centered approach that considers not only physical needs but also spiritual, emotional, cultural, and social aspects.

MATERIALS AND METHODS

This is an experience report that describes the implementation of an extension project coordinated by two faculty members and composed of ten undergraduate nursing students from a private higher education institution (HEI) in the state of Paraná, Brazil. The project entitled "Implementation of the Systematization of Nursing Care – SNC" resulted from a partnership between the HEI and a teaching hospital, with an execution period from August 10, 2023, to December 2, 2023, and involved several stages, as described below:

Stage 1: Students developed a spreadsheet containing nursing interventions, refining pre-existing nursing diagnoses within the teaching hospital's management software. To carry out this stage, students were grouped into pairs (five pairs), with each pair responsible for developing nursing diagnoses and specific interventions for different departments, such as the emergency department, inpatient wards, adult and pediatric intensive care units, surgical center, obstetric center, and maternity unit. To ensure a solid theoretical foundation for this phase of SNC development, the NANDA, NIC, NOC, and ICNP classification systems were used as theoretical frameworks.

Stage 2: Students were trained in the use of the hospital's management software to subsequently train nurses in the SNC implementation. To complete this stage, students were divided into three groups to participate in training with one of the HEI nurse managers, together with the Information Technology (IT) department staff. Activities were conducted in the afternoon and evening, considering participant availability.

Stage 3: Students trained clinical nurses in the use of SNC available within the hospital management software. A training schedule was developed to meet institutional demand, including nurses from all shifts (morning, afternoon, and night).

Professionals were divided into fifteen groups (three to four nurses) and welcomed for training sessions in a hospital meeting room. Training resources included multimedia tools and system login credentials. Students developed a standardized SNC template for interactive completion to demonstrate step-by-step execution of each stage.

It should be mentioned that this project complied with the standards established in Resolutions No. 466/2012 and No. 510/2016 of the National Health Council (CNS). Since this was an experience report, submission to a Research Ethics Committee (REC) was not required.

RESULTS

Following the execution of the three project stages, a total of 58 clinical nurses were trained in the use of SNC. The distribution of trained professionals encompassed different care sectors, including emergency units, inpatient units, intensive care units, surgical centers, maternity, and diagnostic support departments.

This diversity of areas demonstrates the reach and scope of the adopted strategy, reinforcing the relevance of SNC as an integrative tool across different levels of hospital care complexity.

Table 1 presents the quantitative distribution of trained nurses by care sector.

Table 1. Clinical nurses trained in the use of the Systematization of Nursing Care in a teaching hospital in partnership with a private higher education institution, 2023, Cascavel, Paraná, Brazil.

Setor	n
Adult Emergency Department	7
Pediatric Emergency Department	8
General Intensive Care Unit	4
Neonatal and Pediatric Intensive Care Unit	3
Hemodynamics Unit	1
Surgical Center	3

Source: Authors, 2023.

Table 1. (Continuation).

Setor	n
Maternity and Rooming-in Unit	5
Diagnostic Imaging Center	2
Inpatient Ward – Wing A	3
Inpatient Ward – Wing B	5
Inpatient Ward – Floor 1	6
Inpatient Ward – Floor 2	5
Other Departments	6
Total trained nurses	58

Source: Authors, 2023.

The data demonstrate broad coverage, including critical care units, inpatient wards, emergency services, maternity, and diagnostic support departments. This result highlights the impact of the project on nurse training.

DISCUSSION

The results obtained from training clinical nurses in a teaching hospital, in partnership with a private HEI, demonstrate the relevance and effectiveness of the SNC implementation as a fundamental tool for nursing practice. Training was distributed across different departments, ranging from critical units such as the Intensive Care Unit (ICU) to more specialized areas such as the Diagnostic Imaging Center and Hemodynamics.

Considering that Nursing is a science focused on health promotion and life preservation, it plays a crucial role within the healthcare sector. The essence of this profession lies in care directed toward human beings in individual, family, or community contexts. Nursing practice encompasses activities including health promotion, disease prevention, recovery, rehabilitation, and palliative care, aiming to provide comprehensive and holistic care to patients.

Within this approach, work organization in care settings must be guided by SNC, which establishes directives regarding methods, personnel, and instruments to be used. SNC emerges from the need to structure nursing practice in an organized and systematic manner. This need results from the epistemological, technical, and regulatory evolution of nursing reflected in Brazilian scientific literature over recent years. This advancement is largely attributed to regulations established by COFEN, initially through Reso-

lution No. 272/2002 and later updated by Resolution No. 358/2009, which remains in force nationwide (4).

The implementation of SNC not only enhances the nursing profession but also provides greater visibility and autonomy to professionals. In addition, it may serve as a strategic argument to support essential demands, such as increasing staffing levels and improving the quality of work processes (5,6).

The literature widely recognizes that the SNC implementation—from instrument development to validation and integration into nurses' daily routines—faces significant challenges, including adaptation by all nursing team members (6,7). However, the importance and positive impact of SNC on the profession outweigh the difficulties encountered. Since it improves care, facilitates management, and documents care plans, it guides the comprehensive implementation of the NP (8).

During the execution of the project, the importance of SNC in care management became evident. The hospital will certainly benefit from the positive impacts of this training, as educating nurses in the SNC application, combined with the participatory methodology employed by students, represents significant progress in the quality of individualized care delivery. Furthermore, the experience gained during this period contributed to students' professional development.

SNC not only standardizes procedures but also strengthens nursing autonomy by providing a robust tool for evidence-based decision-making. It also optimizes processes and available resources, facilitates communication and integration among healthcare team members, enables more efficient collaboration, reduces errors and omissions, and promotes safer and more effective practice.

CONCLUSION

It can be inferred that the project, resulting from a fruitful partnership between the HEI and the teaching hospital, adopted a broad and strategic approach. By encompassing multiple stages leading to subsequent nurse training in the SNC implementation, the project stands out for its relevance in professional education and in improving healthcare quality.

The project presents a solid and well-planned framework to enhance both student learning and nursing practice, consolidating a holistic approach to nursing care. The success of this partnership and the scope of the stages undertaken indicate a tangible investment in educational quality and, consequently, in the quality of healthcare services provided. For that reason, the project deserves recognition for its comprehensive approach, collaborative methodology, and potential impact on healthcare excellence.

The practical and theoretical experience acquired throughout this project confirms the relevance of SNC as a transformative element in nursing practice. Its successful implementation represents significant progress in improving work processes and the quality of patient care, highlighting the need for continuous monitoring and commitment to professional advancement in healthcare.

Despite the success of the training, it is important to recognize ongoing challenges in the SNC implementation and maintenance, such as the need for continuous professional development and adaptation to technological and methodological changes. The reported experience demonstrates that the SNC implementation, through targeted and contextualized training, has the potential to transform nursing practice, ensuring high-quality, effective, patient- and family-centered care.

Conflict of interest:

The authors declare no conflicts of interest.

Funding:

Self-funded.

Authorship contribution:

TAC, RZ: conceptualization, formal analysis, research, methodology, validation, visualization, writing of the original draft, writing, project administration.

MHC: conceptualization, formal analysis, research, methodology, validation, visualization, writing of the original draft, writing - review & editing.

BJL, LSM, LPW: data curation, research, validation, writing of the original draft.

Corresponding author:

Terezinha Aparecida Campos

✉ tcamposzto75@gmail.com

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