

University extension on patient safety: an experience report

Extensão universitária sobre segurança do paciente: um relato de experiência

Extensión universitaria en seguridad del paciente: un informe de experiencia

Isabela da Silva¹, Emanuelle Zeferino de Souza Machado², Rosemeire Andreatta³, Flávia Batista Portugal⁴, Kallen Dettmann Wandekoken⁵

How to cite this article: University extension on patient safety: an experience report. Rev Enferm Atenção Saúde [Internet]. 2025 [access:_____]; 15(1): e20258137. DOI: <https://doi.org/10.18554/reas.v15i1.8137>

Abstract

Objective: To report the experiences of nursing students in the extension project of the Federal University of Espírito Santo. **Methods:** This is a report of the activities in the "Study Groups on Quality and Patient Safety" project, carried out in the Quality Management Sector of the Cassiano Antônio Moraes University Hospital, with a focus on the Maternity Ward, from August 2022 to August 2023. **Results:** Analyzing 487 medical records of patients who underwent cesarean sections, improvement projects were implemented in the obstetric center. The activities of the academics were far from the practical disciplines and internships, which brought some challenges during development. However, over time, the academics overcame difficulties, improving communication with the team and autonomy in decision-making. **Conclusion:** The extension experience was crucial for academic and professional training, promoting critical, reflective and proactive development.

Descriptors: Patient Safety; Quality of Health Care; Nursing

¹ Nurse graduated from the Federal University of Espírito Santo (UFES). Federal University of Espírito Santo - UFES. Vitória/ES, Brazil. <https://orcid.org/0009-0004-3451-1412>

² Nurse graduated from the Federal University of Espírito Santo (UFES). Federal University of Espírito Santo - UFES. Vitória/ES, Brazil. <https://orcid.org/0009-0009-4480-6114>

³ Nurse at the Cassiano Antônio Moraes University Hospital. Specialist in Quality in Health and Patient Safety from the Sergio Arouca National School of Public Health. Cassiano Antônio Moraes University Hospital. Vitória/ES, Brazil. <https://orcid.org/0000-0002-0607-9958>

⁴ Adjunct Professor in the Department of Nursing at the Federal University of Espírito Santo (UFES). PhD in Public Health from the Sergio Arouca National School of Public Health and Master's degree in Collective Health from UFES. Federal University of Espírito Santo - UFES. Vitória/ES, Brazil. <https://orcid.org/0000-0002-4425-2627>

⁵ Adjunct Professor in the Department of Nursing at the Federal University of Espírito Santo (UFES). PhD and Master's degree in Public Health from UFES. Federal University of Espírito Santo - UFES. Vitória/ES, Brazil. <https://orcid.org/0000-0002-2326-4880>

Resumo

Objetivo: Relatar as experiências das acadêmicas de enfermagem no projeto de extensão da Universidade Federal do Espírito Santo. **Métodos:** Este é um relato das atividades no projeto “Grupos de Estudo sobre Qualidade e Segurança do Paciente”, realizado no Setor de Gestão da Qualidade do Hospital Universitário Cassiano Antônio Moraes, com foco na Maternidade, de agosto de 2022 a agosto de 2023. **Resultados:** Foram analisados 487 prontuários de pacientes submetidas a cesarianas e implementados projetos de melhoria no centro obstétrico. As atividades das acadêmicas estavam distantes das disciplinas práticas e estágios, o que trouxe alguns desafios durante o desenvolvimento. No entanto, com o tempo, as acadêmicas superaram dificuldades, melhorando a comunicação com a equipe e a autonomia na tomada de decisões. **Conclusão:** A experiência de extensão foi crucial para a formação acadêmica e profissional, promovendo um desenvolvimento crítico, reflexivo e proativo.

Descritores: Segurança do Paciente; Qualidade da Assistência à Saúde; Enfermagem

Resumen

Objetivo: Relatar las experiencias de estudiantes de enfermería en el proyecto de extensión de la Universidad Federal de Espírito Santo. **Métodos:** Este es un informe de las actividades del proyecto "Grupos de Estudio sobre Calidad y Seguridad del Paciente", realizado en el Sector de Gestión de Calidad del Hospital Universitario Cassiano Antônio Moraes), con enfoque en la Sala de Maternidad, de agosto de 2022 a agosto de 2023. **Resultados:** Se analizaron 487 historias clínicas de pacientes sometidas a cesáreas y se implementaron proyectos de mejora en el centro obstétrico. Las actividades de los académicos estuvieron alejadas de las disciplinas prácticas y las pasantías, lo que trajo algunos desafíos durante el desarrollo. Sin embargo, con el tiempo, los académicos superaron las dificultades, mejorando la comunicación con el equipo y la autonomía en la toma de decisiones. **Conclusión:** La experiencia extensionista fue crucial para la formación académica y profesional, promoviendo el desarrollo crítico, reflexivo y propositivo.

Descriptores: Seguridad del Paciente; Calidad de la Atención de Salud; Enfermería

INTRODUCTION

The World Health Organization (WHO) defines patient safety as "reducing the risk of unnecessary harm associated with health care to an acceptable minimum."¹ In this way, over the years, there has been a frantic search by health organizations to offer quality care.

The pursuit of patient safety, essential for quality in healthcare, received a significant milestone with the publication of the document "To Err Is Human: Building a Safer Health System" by the Institute of

Medicine (IOM) in 1999. Therefore, it is crucial to emphasize that ensuring patient safety is closely linked to understanding and complying with the regulations and standards governing healthcare services.²

In Brazil, the National Patient Safety Program (PNSP) was created by the Ministry of Health under Ordinance MS/GM No. 529, of April 1, 2013, aiming to improve the quality of care in public and private health institutions.³ To reinforce these measures, the National Health Surveillance Agency made the formation of



Patient Safety Centers mandatory in health services, according to RDC No. 36 of July 2013.⁴

Nursing professionals play a vital role in Quality Management, ensuring safe and high-quality care. They manage labor and human resources to provide the best care conditions for patients and staff, acting strategically to ensure adequate support for all involved.⁵

Studies on patient quality and safety highlight the importance of the nurse's experience, both in academic training and professional practice. The National Patient Safety Program values the inclusion of patient safety in education, emphasizing undergraduate, postgraduate, and health services as essential spaces for this approach.²

Among these spaces, University Extension stands out, as it facilitates the exchange of experiences and knowledge between students, professionals, and the population, promoting teaching and learning through real-life situations. In the health field, these activities are especially important for the humanization of care and the improvement of assistance. The interaction between the university and the community improves the understanding of the different actors and contributes to the development of the work process.⁶

Therefore, the objective of this study is to report the experiences and activities of nursing students in the extension project "Study Groups on Quality and Patient Safety," focusing on the actions carried out in the Quality Management Sector of the University Hospital of the Federal University of Espírito Santo.

METHODS

This is a descriptive experience study, developed within the scope of the project "Study Groups on Quality and Patient Safety" of the Nursing and Obstetrics course at the Federal University of Espírito Santo. The project was registered under number 2815 with the Pro-Rectorate for Extension, being coordinated by two professors from the course.

The field of study was the Quality Management Sector of the Cassiano Antônio Moraes University Hospital (HUCAM), with practical implementation in the Women's Health Unit (Maternity Ward). The extension activities took place weekly from August 2022 to August 2023, under the supervision of the project's coordinating professor, the head nurse of Quality Management, and the sector's professionals.

During this period, the extension activities were funded by UFES through the Institutional Extension Scholarship



Program (Pibex) in the 2022-2023 call for proposals, with the collaboration of volunteer members. The activities were also integrated into the Master's project led by the Head of the Quality Management Sector.

In the initial meeting, the students met with the head nurse of the Quality Management sector and the Patient Safety and Quality Management Unit to plan the activities. Ongoing activities at the hospital were discussed, with emphasis on the collection of retrospective data from medical records and concurrent data from patients undergoing cesarean sections. Before the start of the activities, the students received training to ensure the adequacy and standardization of data collection.

For data collection from medical records, it was used an electronic form on the Microsoft Forms platform, created by the Head of Quality Management. The questionnaire included questions about patient data, such as name, medical record number, date of birth, telephone number, comorbidities, vulnerability, weight, and height. In addition, there was a section on the preoperative period, addressing aspects such as hair removal and bathing with chlorhexidine degerming solution.

The second part of the questionnaire addressed the intraoperative period counted with questions about the ASA classification

system for perioperative risks, the classification of the surgery as urgent or elective, dates and times of surgery, antibiotic prophylaxis used and its administration time, validity of the instruments and presence of a chemical integrator, surgical complications, ruptured membranes and active labor, as well as the assessment of the wound at 24 and 48 hours. It was performed by a nurse or physician.

Concurrent data collection was performed using a printed form, the information from which was subsequently entered into Microsoft Forms. The form consisted of three modules: the first on surgical hand antisepsis, the second on skin antisepsis with a degerming solution by the nursing staff, and the third on antisepsis with an alcohol-based solution by the medical staff.

After analyzing and observing the activities of the initial surgical process, judgments were made as "compliant" or "non-compliant." The items evaluated included the availability of supplies, compliance with the steps recommended by the 2009 Anvisa manual "Patient Safety in Health Services and Hand Hygiene," and the execution of the technique according to the HUCAM Standard Operating Protocol, POP UVS 006 – Surgical Site Skin Antisepsis in Cesarean Section.



Therefore, this experience report was prepared using data from the monthly attendance records of the Pro-Rectorate for Extension, individual perceptions of the students regarding the performance of the activities, and information from electronic forms on the Microsoft Forms platform.

Results of the Experiment and Discussion

The activities carried out throughout the extension program were directed towards: research in the medical records of patients who underwent cesarean sections and practical observational/concurrent data collection in the Obstetrics Center.

There were 487 medical records analyzed, from the pre-operative to the post-operative period. The selection of this patient profile was aligned with the master's thesis and improvement projects aimed at reducing the high rates of surgical site infections in women at Hucam.

During data collection using the Microsoft Forms platform, it was possible to identify inadequacies in care practices based on the criteria evaluated in the electronic form. Among the main failures observed the following stand out: failure to assess the postoperative wound in the first 24 and 48 hours, initiation of antibiotic prophylaxis less than 1 hour before the procedure, and the absence of a chemical integrator, among others.

According to a study⁷, the main risk factor for surgical site infections in cesarean sections is the classification of the surgical wound. Other contributing factors include age, nutritional status, pre-existing chronic diseases, time of rupture of amniotic membranes, excessive vaginal examinations, and inappropriate use of prophylactic antibiotic therapy.⁷

The information collected was used to hold meetings with the nursing team and the Patient Safety Center, where improvements achieved and new needs were discussed. In addition, training sessions were conducted for medical interns and residents who participated in surgeries, with the aim of aligning their knowledge and practices with the proposals of the Quality team and the Patient Safety Center, with the goal of reducing surgical site infections.

While the medical records data were being collected, practical improvement projects in the hospital's obstetrics center were underway under the management of the quality manager. The academics from the extension project were called upon to carry out the practical data collection, which involved observing the beginning of cesarean sections to observe the hand antisepsis process with a degerming agent up to the stage of antisepsis with alcoholic chlorhexidine in the surgical incision area.



Furthermore, to reinforce these measures, improvements were implemented in the sector, including the provision of a timer to monitor the duration of surgical antisepsis, instructional signs, among others. These improvements aimed to support professionals in adapting care techniques and to reinforce the knowledge of interns and residents in the sector.

As a result of the interventions, organizational improvements were observed. During this period, the obstetrics center began to have a day nurse, which improved supervision and ensured the quality of care processes. Trained and guided on proper practices, this professional helped to standardize the procedures performed by the other team members.

Studies show that handwashing, using personal protective equipment, removing jewelry, and conducting ongoing training with team members are effective preventive actions that should be performed daily by healthcare professionals who demonstrate quality care and risk minimization, which in turn reflects in adverse events arising from care.⁸

Furthermore, the obstetrics center began performing cesarean sections outside of business hours, that is, after 6 PM, facilitating monitoring in the sector. Previously, these deliveries were performed

in the surgical center. This change made it possible to observe greater team engagement with the implemented measures.

Therefore, it is crucial to highlight that active surveillance of women who have undergone cesarean sections is essential for identifying cases of infection. The quality of care and postoperative care should be evaluated based on infection rates, implemented prevention measures, and morbidity and mortality estimates. These factors, in turn, contribute to the reduction of deaths, disabilities, and hospital costs.⁷

During the development of the extension activities, some challenges were observed, such as insecurity, lack of in-depth knowledge on certain subjects, and difficulty in communication, among others. However, with the increased intensity of the activities, it was possible to overcome these obstacles, resulting in improvements in communication with the team, greater autonomy in decision-making, confidence in the professionals' approach, and greater scientific engagement.

In general, the project's actions promoted integration between university academics and the university hospital team, strengthening the relationship between the institution and the teaching hospital. Furthermore, they facilitated the exchange of experiences with the multidisciplinary

team, highlighting a horizontal relationship. This contributed to coherence in professional practice, improved understanding of the patient safety team's surveillance and monitoring processes, and helped to better understand the nurse's role in the Patient Safety Center and the Quality Department.

In this sense, nurses are predominant professionals in the composition and important in the implementation of actions related to patient safety. Therefore, this professional assumes a strategic and organizational position, since their mission is to guarantee patient safety through the identification of contributing factors and the implementation of improvements in the health system.⁹

Therefore, extracurricular experiences are fundamental to the development of interdisciplinary training.⁹ The health professional training in the Unified Health System should be integrated, not segmented. According to a study¹⁰, university extension programs help develop skills such as autonomy in decision-making, leadership, coordination, planning, and execution of teamwork.¹⁰

FINAL CONSIDERATIONS

Therefore, it is noteworthy that the experience gained by nursing students in the extension program was of great

importance for their academic training and professional experience, providing a more accurate, critical, and reflective perspective.

Furthermore, the experience gained in surveillance activities involving the collection of data from medical records and practices in the obstetrics center provided students with an understanding of the workflow in this sector, their responsibilities as professionals, and the need to establish a fair Safety Culture in the face of adverse events, incidents, and harm.

Therefore, it became evident that the Quality Nurse must possess fundamental skills, such as good interprofessional communication, risk management, and coordination of care with the team. This, in turn, highlights the importance of experiences in outreach programs developed in environments and themes surrounding patient safety.

Acknowledgments and Funding

The activities were funded by UFES through the Institutional Extension Scholarship Program (Pibex) in the 2022-2023 call for proposals.

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RECEIVED: 15/11/24

APPROVED: 07/11/25

PUBLISHED: 11/2025

