## The meaning of patient safety for nursing students

O significado da segurança do paciente para discentes do curso de Enfermagem El significado de la seguridad del paciente para discentes del curso de Enfermería

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#### **ABSTRACT**

Objective: To understand the meanings attributed to patient safety by nursing students. Methods: Descriptive study of qualitative approach, based on the theoretical-methodological proposal of Symbolic Interactionism, conducted with 12 students completing the nursing course of a public higher education institution in a city in the state of Amazonas. The data were collected through a semi-structured interview. For interpretation of the results, it was used thematic analysis. Results: The meanings attributed by the students to patient safety are: the reduction of harm, the guarantee of the integrity of the patient, family members, and health professionals, the promotion of health through the knowledge acquired in the academy, the attitude of the professional and the practice. Final considerations: The meanings originated are in line with the literature produced; however, the students have knowledge gaps that enable patient safety development in their academic training and as nurses. Descriptors: Patient Safety; Nursing Education; Symbolic Interactionism; Undergraduate

**Descriptors:** Patient Safety; Nursing Education; Symbolic Interactionism; Undergraduate Nursing Programs; Bachelor's degree in Nursing.

## **RESUMO**

Objetivo: Compreender os significados atribuídos à segurança do paciente pelos discentes do curso de Enfermagem. Métodos: Estudo descritivo de abordagem qualitativa, pautado na proposta teórico-metodológica do Interacionismo Simbólico, realizado com 12 discentes concluintes do curso de Enfermagem de uma instituição de ensino superior pública em um munícipio do estado do Amazonas. Os dados foram coletados mediante uma entrevista semiestruturada. Para interpretação dos resultados, utilizou-se a análise temática. Resultados: Os significados atribuídos pelos discentes à segurança do paciente são: a redução de danos, a garantia da integridade do paciente, familiares e profissionais de saúde, a promoção da saúde por meio do conhecimento adquirido na academia, da atitude do profissional e da prática. Considerações finais: Os significados originados estão em consonância com a literatura produzida, no entanto os discentes apresentam lacunas do conhecimento que possibilite o desenvolvimento da segurança do paciente em sua formação acadêmica e como enfermeiros. Descritores: Segurança do Paciente; Educação em Enfermagem; Interacionismo Simbólico; Programas de Graduação em Enfermagem; Bacharelado em Enfermagem.

#### **RESUMEN**

Objetivo: Comprender los significados atribuidos a la seguridad del paciente por discentes del curso de Enfermería. Métodos: Estudio descriptivo de abordaje cualitativo, pautado en la propuesta teórico-metodológica del Interaccionismo Simbólico, realizado con 12 discentes concluyentes del curso de Enfermería de una institución de enseñanza superior pública en un municipio del estado de Amazonas. Los datos fueron recolectados mediante una entrevista semiestructurada. Para interpretación de los resultados, utilizado el análisis temático. Resultados: Los significados atribuidos por los discentes a la seguridad del paciente son: reducción de daños, garantía de la integridad del paciente, familiares y profesionales de salud, promoción de la salud mediante el conocimiento adquirido en la academia, la aptitud del profesional y la práctica. Consideraciones finales: Los significados originados están en consonancia con la literatura producida, aunque los discentes presentan lagunas del conocimiento que posibilite el desarrollo de la seguridad del paciente en su formación académica y como enfermeros.

**Descriptores:** Seguridad del Paciente; Educación en Enfermería; Interaccionismo Simbólico; Programas de Graduación en Enfermería; Bachillerato en Enfermería.

## **INTRODUCTION**

Patient Safety (PS) are measures directed to patients to prevent risks in health services, unnecessary damage, and adverse events (AE)<sup>(1)</sup>. Health professionals, especially nurses, have been discussing the prevention and occurrence of AE during patient care since the contributions of Florence Nightingale (1820-1910). The concern with PS had always existed, however, not as a public policy, a fact that only emerged in the late 1990s, when the term began to gain worldwide visibility<sup>(2)</sup>.

Unfortunately, failures in safety in primary care and hospital settings are common<sup>(1)</sup>. World Health Organization (WHO) estimates that preventable AEs at the time of care affect one in ten patients worldwide<sup>(3)</sup>. Current data show that 103,275 healthcare-associated incidents (HAIs) were reported only in Brazil in 2018. Of that, 2,656 with severe harm, and 492 evolved into deaths<sup>(4)</sup>.

Given the magnitude of the problem, the WHO launched the World Alliance for Patient Safety in 2004. It was the first movement with the participation of other regulatory, governmental and civil society institutions and had as its primary focus the prevention of avoidable AE<sup>(5)</sup>. Nine years later, through Ordinance N° 529 of April 1, 2013, the Brazilian National Patient Safety Program (PSP) was established. It reinforced the premise of the inclusion of this theme in the training of health professionals, where one of its objectives was to promote the inclusion of the theme "patient safety" in technical, undergraduate, and graduate education in the healthcare area<sup>(6)</sup>.

Safety culture is a priority in patient safety practice, established in the Brazilian National Patient Safety Program (PSP). According to Ordinance N° 529, "safety culture" is the culture in which all professionals (through caring or management) are committed to their safety, the safety of other team professionals, their clients, and families. Four axes form the PSP: the incentive of safe practice, the patient's participation in their safety, the subject's inclusion in teaching, and the development of research on the subject. The patient's safety culture is the element that crosses all of them<sup>(6)</sup>.

Considering that PS is not an issue specific to a particular health profession and the teaching-learning process of health professionals should include patient safety competencies, in 2011, the WHO launched the Patient safety curriculum guide: a multi-professional edition to help health course institutions in implementing PS. As a relatively new approach for most health educators, the guide provides educational approaches and a variety of concepts and methods for PS teaching and assessment<sup>(7-8)</sup>.

Since the promotion of skills and attitudes of students related to PS is the role of undergraduate courses in healthcare, they should contribute to practices and safe acts in the face of different risk situations. Thus, studies are needed to show how "patient safety" is being presented in undergraduate courses in health throughout the country, especially in nursing courses, and how students (re)signify the subject.

The survey conducted in the scientific database Latin American and Caribbean Literature (LILACS) about the subject of the study, using the descriptors "Patient Safety" AND "Undergraduate Nursing Programs," reached a total of 15 publications. When mentioned in the United States National Library of Medicine (PubMed) with the descriptors "Patient Safety" AND "Education, Nursing, Diploma Programs," three publications were located.

These numbers were reduced to zero publications when studies on the subject were searched, correlating it to Symbolic Interactionism in both databases.

In the undergraduate Nursing course of a public higher education institution (HEI) in the interior of the State of Amazonas, the present study sought to investigate the meanings attributed to the subject by undergraduate students considering Herbert Blumer's Symbolic Interactionism Theory (SI)<sup>(9)</sup>.

The search to optimize academic training and contribute to the quality of care provided by these future professionals justifies the research. The development of the study was motivated by the need to answer the following question: What is the meaning of patient safety for nursing students?

## **OBJECTIVE**

To understand the meanings attributed to patient safety given by nursing school students.

## **METHODS**

## **Ethical aspects**

The research started after submission to and approval by the Research Ethics Committee (CEP), complying with Resolution 466/2012. All study participants were informed and signed the Informed Consent Form (ICF). The participant's name was represented by the letters T (Testimony) and S (Speech), followed by numbers according to the chronological order in which the participants' interviews and the speeches occurred (e.g., T4S1 - testimony 4 and speech 1), which ensures participants' confidentiality and anonymity throughout the process.

## Theoretical-methodological framework

The SI allows us to understand how people interpret each other in their interaction process and how, based on their interpretation, they conduct their individual behavior in various situations<sup>(10)</sup>.

A relevance factor inserted in interactionist studies is related to the admission of different factors mutually. Individuals only talk about experiences to which they attribute meaning, actions, and interpretations, i.e., only about what is part of their reality and what they have already experienced<sup>(11)</sup>. The SI theory promotes a better understanding of the meanings attributed to the PS since it will only be possible to understand what they have learned in classes through experiences lived and considered significant for the nursing students.

## Type of study

We are presenting one descriptive research with a qualitative approach, which is part of the dissertation of the principal author, based on the SI theoretical and methodological proposal<sup>(9)</sup>, which followed the Consolidated criteria for reporting qualitative research (COREQ) to increase the rigor and quality of the research carried out<sup>(12)</sup>.

The technique employed for qualitative data analysis was Content Analysis in the thematic analysis mode<sup>(13)</sup>.

## **Methodological procedures**

## Study setting

The study was conducted at a public HEI located in a city in the northern region of Amazonas, Brazil. The populace selected for the research were students of that institution's bachelor's degree in Nursing school. Besides the Nursing course, the chosen HEI offers other courses in the health area, such as Physiotherapy, Medicine, and Nutrition, in a classroom setting, divided into semesters.

#### Data source

Twelve undergraduate nursing students participated in the study. It is important to emphasize that there was no segment loss since all the first 12 participants approached by the researchers met the eligibility criteria. Thus, the inclusion criterion was the student's enrollment in a nursing course. The exclusion criteria were previous knowledge and experiences in the health/nursing area prior to graduation (nursing technician) and not being present at the time of data collection.

### Collection and organization of data

The definition of the number of participants was based on the saturation criterion, a conceptual tool frequently used in the reports of qualitative investigations in different areas, including the health field.

Data collection was carried out by a trained researcher from March 13 to 16, 2020, through semi-structured interviews, given individually, lasting 20 minutes, according to the availability of the participants in a room available on the premises of the HEI. There was prior contact with the coordination of the undergraduate course to schedule a day and place for meeting the students. After authorization, a meeting took place to clarify the study's objectives, the importance of participation, reading, signing the ICF, and scheduling the interviews.

The interview was divided into two stages. The first referred to the characterization of the study participants, with personal information, socioeconomic and academic activities, namely: gender; age group; marital status; complementary education (technical courses, specializations); employment relationship; family income; and participation in external, extension and/or research activities related to the topic of PS. For the second part of the interview, a script was used with guiding questions whose purpose was to promote a more in-depth understanding related to the meanings, actions, and interpretations of nursing students on patient safety.

After authorization from the participants, the researcher used a tape recorder as a form of aid during the interview. All recordings were transcribed in their entirety, giving the researcher the certainty of obtaining precise information from the participants' speeches.

## Data analysis

The answers were submitted to the Content Analysis in the thematic analysis mode, following its three stages: pre-analysis,

thorough exploration of the material, and interpretation of the data obtained<sup>(13)</sup>. The identified themes were related to the premises of SI, meaning, action, and interpretation<sup>(9)</sup>.

## **RESULTS**

Among the interviewed students, males were predominant (n=7;58%), aged between 22 and 39 years, single (n=9;75%), without employment relationship, exclusively dedicated to their studies (n=11;92%), with monthly family income ranging from one to six minimum wages. Of the 12 interviewed students, nine (n=9;75%) reported participating in instructional and/or continuing education on patient safety, including short-term training and/or extension projects.

Based on the testimony of the nursing students and considering the SI in its three premises, it was identified meaning of PS in three categories: "The meaning of patient safety," "Factors that hinder the execution of patient safety," and "The inclusion of 'patient safety' in academic nursing education."

## The Meaning of Patient Safety

According to the participants, PS acts in preventing and reducing harm in the hospital environment and covers various moments of care, from admission to patient discharge.

Patient safety is comprehensive because it goes from patient admission to hospital discharge [...] only when administering the medication according to the 11 proper recommendations but also related to preventing falls, preventing pressure ulcers, preventing hospital infection. (T1S1)

Provide a safe environment for the patient where they can be free from physical accidents or chemical accidents; they can be safe [...] if you know it [...] you will be protecting yourself, the patient, and the profession itself. (T4S1)

To cause as little harm as possible during that patient's stay in the hospital. It is to make sure that there will be no harm while they are in the hospital. (T7S1)

Also, the participants reported that the PS aims at the integral assistance of the patient, extending this care to the patient companion, family members, and the health team.

It's about the safety, not only patient's safety, but even to the patient companion, the professionals, the multi-professional team involved, and the whole building, everything. (T2S1)

It is fundamental for the patient and my professional life because when I practice patient safety, I also contribute to my own safety. (T6S1)

## Factors hindering the execution of patient safety

The students cited impediments to performing PS. Among them are the lack of PS implementation in the hospital environment and insufficient physical structure and human resources in places where they do their practical classes and internships.

For starters, considering the work environment, if they don't employ a PS model there, and if they don't harp on about this, especially regarding hand sanitizing, this reflects on the PS. (T1S3)

One of the reasons is the issue of the physical and professional structure. If the professional doesn't have security in his practice, he may be harming the PS, among other factors. (T6S3)

Mainly in institutions without PS normatization, as we witness here, right. Especially in these little hospitals in small towns, not having an SOP [Standard Operating Procedure] is one harmful factor, along with the absence of proper fiscalization. (T10S3)

Another point frequently mentioned by the study participants as an impeditive factor for maintaining the PS was the lack of effective communication between the health team, patient, and family. That lack of feedback can sometimes affect the quality of care, making caring for the patient even more difficult.

I think what can harm the PS is the lack of information, the feedback from the work team, even the patient companion can also hurt the assistance. (T5S3)

Nurses must supervise if these PS measures are being applied and enforce them during their own shift [...] because it's no use me knowing and my team not. For instance, the lack of communication could be damaging. (T11S3)

# The inclusion of the theme "patient safety" in nursing education

The study participants reported the absence or little focus on the topic "patient safety" during their undergraduate studies. Many times, this insertion appeared late or superficially during the course.

It lacks information on the subject because when I got there [hospital], I didn't know about patient safety; after all, we don't have classes to teach about that [...] When we went to the surgical center, it was introduced to us but hardly how PS is employed. It was explained superficially related to the checklist, and I realized that it was not only that. (T2S3)

I only came into contact with PS now in my penultimate period. Through the sector where I worked, I could comprehend what PS was and what I could do to my client. Although I talked about PS, I didn't know what PS was to be implemented. (T4S6)

As a matter of fact, we learned about PS in Manaus, where I saw it, but... Here, I also heard the instructors saying in the internships, "you have to be careful" or "you have to pay attention to this." But, actually talking about safety, we had never heard of it. (T8S6)

The participants were unanimous when stating the necessity to insert PS as a mandatory discipline in the Nursing course, which would provide the students with theoretical knowledge before the practical activities and curricular internships.

There should be a specific discipline for this, in my opinion. A discipline to, at least, introduce the subject because there are

several factors; here in the Amazon, we have little knowledge of this theme, right? (T12S9)

As a discipline, because the PS is very comprehensive. There is an optional discipline, biosecurity, but not everyone gets to do it; it should come to the curriculum grid and not be optional. (TSS9)

I think there should be a specific discipline for it. It has this necessity because we didn't see it only in ICU. We saw it all along [the course]... since semiology, in initial disciplines. Still, I think there isn't a specific discipline to deal with it. (T11S9)

The interviewees also mentioned the inclusion of PS in a transversal way throughout the undergraduate course, which would provide the students with more effective and consolidated teaching on the subject.

I think it is from the beginning of graduation and continuously, not only in one stage of the undergraduate course. (T4S9)

I think it would be important to discuss this subject, talk about it, right when the students start, right at the beginning of their practical activities. In this case, in our institution, we emphasize the issue in semiology, showing its importance, even though our hospital is not adept because it doesn't have a PS center. (T10S9)

## **DISCUSSION**

## The Meaning of Patient Safety

The results of this study showed that there are meanings for nursing students about PS. They carried in their speeches principles that remind us of the culture of safety, such as reducing hazards, ensuring the integrity of patients, family, and health professionals, promoting health through the knowledge obtained in academia, the attitude of the professional, and the practice.

The WHO conceptualizes patient safety as the absence of avoidable harm to a patient during the health care process and the reduction, to an acceptable minimum, of the risk of unnecessary harm associated with health care. An acceptable minimum refers to the collective notions of existing knowledge given, resources available, and the context in which care was provided versus the risk of non-treatment or other treatment<sup>(4,14)</sup>.

PS can also be defined as reducing medical risks and harm to a minimum level at the time of care; it is added that it is the duty of all health professionals, including nurses, to provide safe care, complying with the recommended principles<sup>(15)</sup>. The participants understand the significance of the theme and recognize the role of nursing in promoting actions and the applicability of PS during assistance.

This finding is like a study conducted with 638 students from different healthcare courses enrolled in an HEI in the State of Rio Grande do Sul: their results showed that, although the students did not have a specific discipline on patient safety, most of them exhibited perceptions that promote safety. Such evidence indicates that teachers have been concerned with developing the theme, using a cross-cutting approach in the courses evaluated<sup>(16)</sup>.

Another important point identified in the participants' answers is the understanding of PS promotion connected only

to the hospital environment. Although the highest number of occurrences of AE is in hospitals<sup>(4)</sup>, Ordinance N° 529/2013 cites, in its general objective, the recommendation to implement the Brazilian National Patient Safety Program (PSP) in all health facilities in the national territory, whether public or private<sup>(6)</sup>. It should be considered at all levels of complexity, being necessary PS measures from Primary Care to hospital networks. This finding indicates that PS must prioritize clinical care, so it is necessary to include PS in undergraduate courses as public policy to make students appreciate all areas of its applicability.

The participants assertively reported that patient safety aims at the integral care of the patient, the caregiver, the family member, and the entire healthcare team. The WHO's Patient Safety curriculum guide: multi-professional edition emphasizes the importance of watching for patients and caregivers to develop and sustain a patient safety culture in professional practice<sup>(7)</sup>. Safety is a fundamental principle of patient care; improving it requires a complex system-wide effort to encompass a wide range of actions, including infection control, safe use of medications, equipment safety, safe clinical practice, and a safe environment during the assistance. These tasks go through nearly all disciplines, areas, and healthcare professionals, so there is a requirement for a multifaceted approach to identify and handle actual and potential risks to PS in individual services, finding long-term solutions for the healthcare system<sup>(14)</sup>.

## Factors hindering the execution of patient safety

Among the factors hindering PS execution, students cited the lack of a PS implementation policy, the failure in the physical structure of health facilities, the shortage of human resources, and the absence of a Standard Operating Procedure (SOP) in health institutions where they do practical classes and internships in the interior. The PSP contains several updated and freely accessible procedures and manuals, so it has its SOP to implement the program in health institutions correctly.

According to the Reference Document for the National Patient Safety Program, to implement the PS, Patient Safety Nucleus (PSN) should be created to support and promote PS actions permanently in health facilities. It is the responsibility of the PSN to articulate and encourage the various sectors of the hospital or health units that monitor the AE and quality actions<sup>(2)</sup>. The municipality where the study was conducted still does not have a PSN, which was reported several times by the interviewed students.

The failure in the physical structure mentioned by the study respondents was also described in a survey that identified failures in the physical structure of healthcare units as one of the factors most remembered by students for providing care with a higher risk of AEs<sup>(16)</sup>.

The lack of effective communication between health professionals, patients, and family was assertively cited as an impeditive factor to the PS realization by the students. Communication between people is vital for success in every type of relationship. In work relationships, its importance is no different; from this perspective, it is one of the pillars for implementing a safety culture in health institutions and facilities. Effective communication is one of the six goals for promoting patient safety and must occur

directly to be understood by the recipients, with no margin for double meaning<sup>(14)</sup>. The WHO guide also cites the need to communicate to achieve effective teamwork and the importance of verbal clarity at all levels of healthcare<sup>(7)</sup>.

The present study's finding corroborates a 2018 survey conducted with 22 students from technical schools in the State of Rio Grande do Sul. In the systematic observation phase of the study, the absence of effective communication was identified as one of the actions that facilitated unsafe care, mainly by the lack of discussion of the patients' clinical condition<sup>(8)</sup>.

# The inclusion of the theme "patient safety" in nursing education

The interviewed students reported the incipient insertion of PS in academic training, and the contact with the theme occurred mainly in practical classes. Some participants said that the first contact with the PS was in the disciplines of Curricular Internship I, held in the capital Manaus (AM), in the ninth undergraduate period. This more extended contact with the theme in Manaus can be explained because the hospital where the internships were performed had a National Patient Safety Program (PSP). Therefore, the students had more experience with the theme and with a reality not experienced in the countryside health institutions, where the PSP, so far, has not been established. This observation increases the importance of health services as learning scenarios for academic training.

These findings ratify other studies related to patient safety: knowledge about PS was evidenced but related mainly to empirical knowledge, which reveals the need for a more scientific approach in the investigated courses<sup>(11,17)</sup>.

In addition to the educational institutions, practice environments should include co-participation in students' training since it is necessary to put into practice what was learned in the classroom with all the techniques and safety measures. When entering the practical activities, the student is often faced with reality utterly different from what he was taught during graduation due to a lack of material and human resources in these health institutions. The fact is that this reality can underuse or invalidate the protocols and assistance measures passed on in theoretical and laboratory classes during the undergraduate course<sup>(16)</sup>. That said, the experience lived by the research participants in this regard confirms what is usually told.

Some participants mentioned Biosafety as one of the disciplines that addressed the theme, although it is inserted in the core of optional disciplines. Because it is not mandatory, not everyone takes it during graduation.

The participants unanimously reported the need to insert the PS theme as a mandatory discipline in the Nursing Pedagogical Project. However, the demand to include the PS theme is something desired and widely disseminated by WHO in Resolution N°. 3 of the National Board of Education / Higher Education Chamber of 2001, which establishes the Brazilian National Curriculum Guidelines (NCG) for the Undergraduate Nursing Course<sup>(18)</sup>, it is not a mandatory inclusion.

The absence of PS systematized content in nursing curricula may be explained, but it is unjustified by the timeline with which

the theoretical framework of PS was built in Brazil and worldwide. Before 2004, actions were fragmented in this field, reproducing this logic in academic training. In Brazil, only in 2013 did Ordinance N° 529 only establish the National Patient Safety Program (PSP) (6). A 2017 survey analyzed the production related to PS teaching in undergraduate courses in the health area and identified that, although there is interest from training units in curriculum innovation, curricular changes based on PS are slow and scarce in the country (19). Currently, with the constant updating of protocols and manuals that prioritize the inclusion of the theme in education, it is necessary to review the Nursing Pedagogical Project of the HEI studied for the formulation of new methodologies that enable the promotion of PS in the training of nursing students so that such content be contemplated, expanding those currently taught.

Nursing students mentioned PS transversally inclusion in the curriculum. The WHO guide recommends an incisive approach to PS, offering updates on the subject and examples of institutions that have included the topic "patient safety" in their curricula and made it available in different disciplines and areas of knowledge <sup>[7-8]</sup>. The PS, therefore, is not a discipline related to a single course, and on the contrary, it is one of those disciplines that integrate all healthcare areas and should have, from this perspective, a transversal character.

The study identified that nursing students have experiences related to PS; however, the theme still needs a more profound approach in the course in question.

## **Study limitations**

As a limitation, the research was conducted one week before the notification of the first case of COVID-19 in the state of Amazonas, so the social isolation measures and shutdown of the universities almost made the data collection impossible.

## Contributions to the fields of Nursing, Health and Public Policy

Understanding the meanings attributed to PS by nursing students proved to be of great value to qualifying the nursing practice and the assistance provided to the population. Through students' experiences and reports, it was possible to identify the

elements in which the academy is working effectively with the theme and which issues can be reviewed and improved given the quality and excellence in the training of nursing students.

## **FINAL CONSIDERATIONS**

The realization of this study made it possible to comprehend the theme of "patient safety" from the perspective of nursing students from an HEI in a municipality in the interior of Amazonas. The SI theory helped understand students' relationships with patient safety, highlighting the importance of experiences lived by students so that, from now on, there can be meanings about the theme.

The study results allowed to highlight that the PS theme was not unknown to the students since they correctly cited principles established to promote a safe culture. However, they presented knowledge gaps to enable the PS development in their academic training and working as nurses. Local health services, the scenario of practical classes, will indeed provide a significant contribution to academic training as they implement the National Patient Safety Program (PSP), creating conditions for the culture of PS to become real.

The insertion of new content in the Nursing Pedagogical Project and further in-depth studies on the teaching of PS in undergraduate nursing courses will undoubtedly bring a valuable contribution to the course and future professionals, impacting the training of nurses and the mitigation of AE.

## **SUPPLEMENTARY MATERIAL**

https://tede.ufam.edu.br/handle/tede/8007

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