

# NURSES' KNOWLEDGE ON FALL PREVENTION OF SURGICAL PATIENTS IN THE LIGHT OF THE NURSING PROCESS

## CONHECIMENTO DOS ENFERMEIROS SOBRE PREVENÇÃO DE QUEDA DO PACIENTE CIRÚRGICO À LUZ DO PROCESSO DE ENFERMAGEM

## CONOCIMIENTO DE LOS ENFERMEROS SOBRE PREVENCIÓN DE CAÍDA DEL PACIENTE QUIRÚRGICO A LA LUZ DEL PROCESO DE ENFERMERÍA

Yara Fernanda Alves Gomes Silva<sup>1</sup>

Luciana Pessoa Maciel Diniz<sup>2</sup>

Maria Emília Vidal Teles<sup>3</sup>

Marismar Fernandes do Nascimento<sup>4</sup>

Amanda Regina da Silva Góis<sup>5</sup>

**How to cite this article:** Silva YFAG, Diniz LPM, Teles MEV, Nascimento MF, Góis ARS. Nurses' knowledge on fall prevention in the light of the nursing process. Rev baiana enferm. 2022;36:e43520.

**Objective:** to understand the knowledge of nurses about fall prevention of surgical patients in the light of the nursing process. **Method:** exploratory-descriptive, qualitative research conducted with nurses from a university hospital in the city of Petrolina, Pernambuco, Brazil. Data collection took place in February 2020, through a questionnaire and semi-structured interview. Data were analyzed by thematic-categorical content analysis. **Results:** three categories emerged: Data collection and recording on the main causes of fall of the surgical patient; Nursing diagnosis risk of falls; and Planning, implementation and evaluation for fall prevention in the Perioperatory. **Conclusion:** the knowledge of nurses about the prevention of falls in the surgical patient is essential for quality care, involving the mastery of the stages of the nursing process.

**Descriptors:** Nursing Process. Standardized Nursing Terminology. Perioperative Care. Accidental Falls. Accident Prevention.

*Objetivo:* compreender o conhecimento dos enfermeiros sobre prevenção de queda do paciente cirúrgico à luz do processo de enfermagem. *Método:* pesquisa de natureza exploratório-descritiva, qualitativa, realizada com enfermeiros de um hospital universitário da cidade de Petrolina, Pernambuco, Brasil. A coleta de dados ocorreu no mês de fevereiro de 2020, por meio de questionário e entrevista semiestruturada. Os dados foram analisados por análise de conteúdo temático-categorial. *Resultados:* emergiram três categorias: Coleta e registro de dados sobre as principais causas de queda do paciente cirúrgico; Diagnóstico de enfermagem risco de quedas; e Planejamento, implementação e avaliação para prevenção de queda no perioperatório. *Conclusão:* o conhecimento dos enfermeiros

<sup>1</sup> Universidade de Pernambuco, campus Petrolina. Petrolina, Pernambuco, Brazil. <https://orcid.org/0000-0001-9229-9553>.

<sup>2</sup> Universidade de Pernambuco, campus Petrolina. Petrolina, Pernambuco, Brazil. <https://orcid.org/0000-0002-1774-3869>.

<sup>3</sup> Hospital Universitário da Universidade Federal do Vale do São Francisco. Petrolina, Pernambuco, Brazil. <https://orcid.org/0000-0002-0503-5232>.

<sup>4</sup> Universidade de Pernambuco, campus Petrolina. Petrolina, Pernambuco, Brazil. <https://orcid.org/0000-0001-7821-5077>.

<sup>5</sup> Universidade de Pernambuco, campus Petrolina. Petrolina, Pernambuco, Brazil. [amanda.gois@upe.br](mailto:amanda.gois@upe.br). <https://orcid.org/0000-0003-4661-772X>.

*sobre a prevenção de queda no paciente cirúrgico é imprescindível para uma assistência de qualidade, envolvendo o domínio das etapas do processo de enfermagem.*

*Descritores: Processo de Enfermagem. Terminologia Padronizada em Enfermagem. Assistência Perioperatória. Acidentes por Quedas. Prevenção de Acidentes.*

*Objetivo: comprender el conocimiento de los enfermeros sobre prevención de caída del paciente quirúrgico a la luz del proceso de enfermería. Método: investigación de naturaleza exploratorio-descriptiva, cualitativa, realizada con enfermeros de un hospital universitario de la ciudad de Petrolina, Pernambuco, Brasil. La recolección de datos tuvo lugar en el mes de febrero de 2020, por medio de cuestionario y entrevista semiestructurada. Los datos fueron analizados por análisis de contenido temático-categorial. Resultados: emergieron tres categorías: Recolección y registro de datos sobre las principales causas de caída del paciente quirúrgico; Diagnóstico de enfermería riesgo de caídas; y Planificación, implementación y evaluación para prevención de caída en el Perioperatorio. Conclusión: el conocimiento de los enfermeros sobre la prevención de caída en el paciente quirúrgico es imprescindible para una asistencia de calidad, involucrando el dominio de las etapas del proceso de enfermería.*

*Descriptor: Proceso de Enfermería. Terminología Normalizada de Enfermería. Atención Perioperatoria. Accidentes por Caídas. Prevención de Accidentes.*

## Introduction

Fall is the most common adverse event among hospitalized patients<sup>(1)</sup>. It promotes dissatisfaction with the quality of care and discredits health management, which predisposes to ethical and legal issues<sup>(2-3)</sup> related to increased mortality rates, length of stay and hospitalization costs, and contributes to a decrease in quality of life when it causes limitations and/or disabilities<sup>(2)</sup>.

In the context of patient safety, specifically in the area of surgical patients, it is important to assess not only the risk of falls to which these patients are exposed, but also the expectation of physical recovery of the individual related to the surgical procedure<sup>(4-5)</sup>.

In this sense, notification and event management systems that assist the planning and implementation of preventive interventions include monitoring the number of falls of patients during hospitalization as an important indicator of quality of care<sup>(4)</sup>. Thus, it is evident the relevance of this study with regard to the performance of nursing in the scope of assistance to surgical patients, given that the literature points to nursing as the main responsible for performing such prevention actions, which occurs through the Nursing Process (NP)<sup>(3)</sup>.

In the present study, the nursing process is understood as a scientific method that systematizes

interconnected actions, nursing history or data collection, diagnosis, planning, implementation and evaluation or nursing evolution<sup>(6-7)</sup> in line with a nursing theory capable of grounding actions, ways of acting and thinking professional practice.

Therefore, identifying and understanding the reasons for the fall and how to avoid it can be researched and the knowledge produced be able to consolidate the concept of nursing process. Thus, the objective of this study is to understand the knowledge of nurses about fall prevention of surgical patients in the light of the nursing process.

## Method

This is a descriptive, exploratory study with a qualitative approach, presented according to the recommendations of the Consolidated Criteria for Reporting Qualitative Research (COREQ).

The study was conducted in a reference university hospital for 53 municipalities of the Interstate Health Care Network of the Vale do Médio São Francisco in the states of Pernambuco and Bahia, located in the municipality of Petrolina, Pernambuco, Brazil.

The sample selection was of the intentional, non-probabilistic type, which consists of including

members of the population who are sources of accurate information for understanding the phenomenon under study until the saturation of the data, that is, until the data do not reveal nothing new on the subject under study<sup>(8)</sup>. The number of participants was defined according to the inclusion criterion, nurses who worked in surgical units for six months or more. The exclusion criteria of the sample were: nurses who were on maternity leave, premium leave or work leave.

Data were collected during the month of February 2020, using an approach performed to four nurses of the Surgical Block (SB), three of the Post-Anesthetic Recovery Room (PARR), six of the Surgical Clinic (SC) and three of the Intensive Care Unit (ICU) totaling 16 professionals. The sectors were selected due to the characteristic of the users, surgical patients.

The participants were instructed by the researchers about the objectives of the research and its provisions. After signing the Informed Consent Form (ICF), they answered a semi-structured sociodemographic questionnaire and an interview that presented guiding questions related to the theme.

Data collection was performed by students of the nursing course members of the study and research group in Theories and Practices of the Process of Care in Health and Nursing in the care network of the *Universidade de Pernambuco*, campus Petrolina, who approached the data collection site after training and under the guidance of the main researcher and leader of the said group.

The method chosen for data treatment was thematic-categorical content analysis, which consists of three stages: organization of analysis or pre-analysis, exploration of the material and treatment of results or inference or interpretation<sup>(9)</sup> in light of the nursing process concept.

Thus, in the first stage, the interviews were recorded through a digital voice recorder, with an average duration of 12 minutes, fully transcribed and validated by the participants regarding the content. In order to ensure anonymity and

confidentiality, the participants of the research were identified with the letter 'N' designating the term nurse, followed by a numerical sequence, representing the order in which the interviews were occurred.

In the second and third stages, 18 initial indicators were selected, which allowed understanding the knowledge of nurses about the prevention of fall of the surgical patient and relate them to the stages of the nursing process present in the speeches of the study participants, units classified and grouped into three thematic categories.

The research took place in accordance with the ethical principles of Resolution n. 466/2012, of the National Health Council, and was approved by the Research Ethics Committee (REC) of the Integrated Health Center Amaury de Medeiros (CISAM) of the *Universidade de Pernambuco* (UPE) under Certificate of Presentation of Ethical Assessment (CAAE): 21635119.4.0000.5191 and Opinion n. 3.652.845, on October 21, 2019.

## Results

The analysis of the data from the questionnaire allowed elaborating the profile of the participants: (16) 100% were female; (8) 50% were between 31 and 35 years old and (11) 68.75% self-declared as mixed race. Regarding academic training, (14) 87.5% had postgraduate education; (7) 43.75% had more than 11 years of experience in the care area; (11) 68.75% had 3 years or more of experience in the institution studied and (7) 43.75% also worked in another institution.

From the data of the interviews, it was understood that the knowledge of nurses about fall prevention of the surgical patient in the light of the nursing process can be related in three categories: collection and recording of data on the main causes of fall of the surgical patient; Nursing diagnosis on risk of surgical patient falls; and planning, implementation and evaluation for fall prevention in the perioperative.

### *Collection and recording of data on the main causes of fall of the surgical patient*

The category was elaborated based on the selection of six indicators identified in the analysis of the participants' speeches: level of consciousness, orientation and agitation, use of medications, age, unknown environment and lack of grids.

The identification and data collection of the main causes of fall of the surgical patient were considered by the nurses participating in the study as paramount for the steps related to fall prevention and the first stage of the nursing process, the investigation or data collection. The next record units highlight the causes of surgical patient falls.

*Often due to lack of security, lack of stretcher with bars, beds with bars, elderly patient often alone without a companion. (N3).*

*[...] they are risk factors that contribute to falls, there is also age, type of treatment, the patient's state of wanting to get out of bed, go to the bathroom, walk and the feeling of not wanting to stay in that place, environment or health condition. (N7).*

*[...] a patient, when he is very agitated and without being contained in the bed, ends up falling and the lack of rails in the bed. (N14).*

Among the causes for the fall of surgical patients was the use of sedative and anesthetic drugs, which interfere with the level of consciousness and orientation in the perioperative and contribute to psychomotor agitation or drowsiness that can increase the risk of falling.

*[...] when they leave the operating room, they leave with the effect of anesthesia, so that contributes to the lower level of consciousness. The patient may be disoriented or have an inadequate level of consciousness and may end up falling. (N4).*

*[...] post-surgery anesthesia that can cause disorientation, drowsiness, or dizziness. (N9).*

*[...] usually those who are very agitated, they have a higher risk of falling [...] (N5).*

Other drugs of continuous use, such as antidepressants, antipsychotics and antihypertensives or diuretics, are also common among surgical patients. The next record units address the nurses' knowledge about the

decrease in sensory skills and the occurrence of postural hypotension as causes of surgical patient fall investigated in the data collection stage or nursing history.

*[...] patients who use continuous medication, they tend to fall. (N1).*

*The patient falls due to his state of health, sometimes due to the lack of companions, the constant use of medication [...] (N8).*

*Fall can happen [...] from drugs prescribed that many times have side effects [...] (N11).*

The surgical environment, whether the block or the surgical clinic, also emerged from the nurses' considerations as causes of fall. The participants highlighted that the fact of being in an unknown environment and, in many cases, without structural adjustments aimed at preventing falls, contributes to the occurrence of the adverse event.

*Fall [...] can have external factors... wet floor, bed, different environment. (N8).*

*Yes, patients are not used to the hospital environment or to the post-surgical ones. (N16).*

*[...] patients outside their normal environment [...] who do not know the hospital environment and end up trying to get out of bed and fall. (N1).*

### *Nursing diagnosis on risk of surgical patient falls*

This category was elaborated through the selection of six indicators: nursing diagnoses, Morse Scale, Nursing Care Systematization (NCS), NANDA<sup>®</sup>, evaluation and protocols. Nurses' knowledge about nursing diagnosis (00155) Risk of Falls, it was possible to understand that these professionals recognize the interdependence and dynamics between the stages of the nursing process and that relate the Nursing Care Systematization in the Perioperative Period (NCSP) and the use of NANDA-I<sup>®</sup> Taxonomy for the preparation of nursing diagnosis.

Participants reported the use of specific instruments to collect data on the risk related to falling with the Morse Fall Scale, translated and cross-culturally adapted to the Portuguese language, and instruments on the level of

consciousness, The RAMSAY Sedation Scale and the Richmond Agitation Sedation Scale (RASS).

*I know the scale that is very useful and used in our daily practice. It is simple and easy to apply. (N12).*

*Here at the hospital, we use NANDA® and NCS to guide the nursing team in general diagnoses. (N8).*

*For the nursing diagnosis, I use the NANDA®, I evaluate the patient upon admission to the sector, and from there, I trace his diagnoses and the care that the team needs to do. (N16).*

In this sense, these steps for measures to prevent falls are followed by the interviewed nurses, who know the importance of performing prior and continuous data collection on the risks for falls of patients, and use the Morse Fall Scale and other evaluation protocols that the hospital unit itself has. Professionals understand that it is possible to diagnose, plan and implement nursing interventions.

*[...] here at the hospital we have a patient safety protocol that we follow when the patient is hospitalized. (N7).*

*It's that issue, we have the NCS, it evaluates the patient, makes a diagnosis of risk of falling, opens up nursing interventions as prevention [...] (N1).*

*We basically elaborate the nursing diagnosis, and based on that and on the hospital protocol, care is prescribed for the patient. (N10).*

Analyzing the interviewees' knowledge about the prevention of falls, it is notorious that they understand it and develop it through the stages of the NP that happen in the dynamics of identification of the nursing diagnosis, strategies for the surgical patient.

#### *Planning, implementation and evaluation for fall prevention in the perioperative*

This category was elaborated based on the selection of 10 indicators: care, prevention, nursing prescription, planning, containment in bed, use of grids, companions, team overload, team quantitative and evaluation.

In the planning stage, the nursing prescription or the care plan is prepared. Faced with nursing diagnoses, objectives and goals are outlined, implemented and evaluated.

*It's the goal stage... the diagnosis is made according to the patient's needs. From there, we implement the care. (N16).*

*Prescription is the care we adopt after assessing the risk of falling. (N12).*

*The preventive measure is the application of the scale, and according to the evaluation, we plan patient care [...] (N15).*

The implementation stage is reported by the participants as the performance of the care itself, performed by the nurse, nursing technician or by the patient or family caregiver after health education.

*Well, it's the care we have with the patient to prevent falls. (N13).*

The reports of the study participants highlighted the identification of risks among the interventions implemented by the nurse, followed by preventive measures, such as use of physical and chemical containment, lifting of bed grids, in addition to identifying these patients with a bracelet that signals the risk of falling.

*[...] in it we identify the patient's risk of falling, and soon after the evaluation, a fall risk bracelet is placed [...] (N2).*

*[...] has the care of the nursing team as the containment in the bed. (N10).*

*[...] bed restraint, bed rails, guidelines for companions. (N12).*

*[...] such as use of bars, containment measures, use of sedatives or tranquilizers depending on the patient's condition [...] (N15).*

However, the main interventions reported are related to the education of the patient and companion, family member or caregiver about the measures to prevent the risk of falling.

*[...] guidance of companions in care for the patient not to fall. (N14).*

*[...] family guidance on patient care [...] (N15).*

*The best we can do is observe, evaluate and inform, especially the companions who spend the most time with the patient, since we have a shortage of employees and there is no way for the team to observe this patient 24 hours a day... mechanical restraint and the elevation of the railings to prevent falls in the hospital. (N6).*

It was possible to understand that one of the main difficulties of putting into practice the stages of the Nursing Process is the workload of the nursing team, given the number of surgical patients in the units, as shown in the following reports:

*We try to follow the NCS, make the diagnosis, planning and interventions, but in practice this does not happen correctly due to the workload.* (N1).

*[...] often the number of staff is not enough for all patients [...]* (N4).

*[...] during the evolution to evaluate the risk of falling for each professional, but this is difficult to happen because the demand of patients is high for few professionals [...]* (N8).

It is also important to emphasize that the periodicity of the evaluation, guided by the patient safety sector of the hospital is every seven days, through protocols that the unit itself has, so that falls are avoided throughout the period of hospitalization.

*[...] periodic evaluation, because I often evaluate the patient when he arrives at the sector, but the ideal thing is that he is constantly re-evaluated, the patient's clinical status changes, although he has been here in the hospital for every 7 days, he should re-evaluate the patient [...]* (N1).

*[...] assesses the patient's risk of falling on admission and during their hospital stay.* (N13).

*[...] continuous patient assessment [...]* (N14).

## Discussion

The understanding of nurses' knowledge about fall prevention of the surgical patient in the light of the NP reveals that in the first phase of the NP, the investigation or data collection, one should seek the patient's information, to define the care during the hospitalization period. For the participants, in the admission of the surgical patient, the anamnesis is performed and factors related to the fall are identified, such as age, history of falls, comorbidities and history of previous disease, as well as data from laboratory and imaging tests that, if altered, may compromise mobility, locomotion and spatial orientation<sup>(7)</sup>.

Anamnesis and physical examination are directly linked to the identification of factors related to falls and their prevention<sup>(10-11)</sup>. On this, the participants of this study highlighted that collecting data on the main causes of surgical patient fall allows planning a safer care.

The analysis of the data allowed affirming that the nurses know the intrinsic and extrinsic factors related to the fall, and show that the intrinsic factors are those of sociodemographic,

cognitive, life habits and physiological aspects. As for extrinsic factors, they include environmental aspects that contribute to the episodes of falls, corroborating another study, in which falls have multifactorial etiology, requiring continuous evaluation of the patient<sup>(12)</sup>.

Additionally, among the causes of falls in the surgical patient, it was reported the knowledge about the increased risk when there is use of sedative and anesthetic drugs, which interfere in the level of consciousness and orientation in the once they evolve with a picture of drowsiness and psychomotor agitation. Other drugs of continuous use, such as antidepressants, antipsychotics and antihypertensives or diuretics, are also common among surgical patients. Depending on continuous and prolonged use, such medications contribute significantly to increased risk of fall due to adverse effects such as dizziness, altered gait and balance, and decreased cognition<sup>(13)</sup>.

The nurses highlighted that the fact of being in an unknown environment and, in many cases, without structural adjustments aimed at preventing falls, contributes to the occurrence of the adverse event in the perioperative. It was observed that hospitalization is a predisposing factor for the fall due to the environment and other unfavorable clinical factors and situations, such as the presence of acute, chronic diseases and polypharmacy. The fall may increase the impact of the patient's health conditions, such as dementia, incontinence, balance problems, strength, mobility and vision, and is characterized as a risk diagnosis<sup>(4)</sup>.

On the nursing diagnosis risk of fall, the results of this study highlight that the knowledge of nurses revealed the interdependence and dynamics of the nursing process and the correlation with the Nursing Care Systematization of the Perioperative Period and the use of Taxonomy II NANDA-I<sup>®</sup> to the execution.

For nursing diagnoses, two taxonomies are used, NANDA-I<sup>®</sup> and CIPE<sup>®</sup>. The NANDA-I<sup>®</sup> Taxonomy II 2018-2020 defines (00155) Risk of falls as increased susceptibility to falls that can cause physical damage and compromise

health. It is included in the safety and protection domain, and is part of the physical injury class, related in this study to risk factors and conditions associated with the perioperative period itself, more specifically, the postoperative recovery, as the use of lower limb prosthesis, use of an auxiliary device, pharmaceutical agent, alteration in cognitive function and anemia related to bleeding and orthostatic hypotension<sup>(14)</sup>.

In the taxonomy of ICNP<sup>®</sup>, version 2017, the nursing diagnosis (10015122) Risk of Fall or even other diagnoses, such as (10040276) Knowledge about Fall Prevention, or (10040230) Lack of Knowledge about Fall Prevention, and (10038521) Risk of Fall Injury<sup>(15)</sup>, were not reported by the study nurses. Participants related knowledge about nursing diagnosis only with the taxonomy proposed by NANDA- I<sup>®(14)</sup>.

In the nursing planning stage, the results that are intended to achieve with nursing actions and interventions are elaborated. To describe them, the classifications of the Nursing Outcomes Classification (NOC<sup>®</sup>) that addresses as a risk of fall for the surgical patient the results: (0301) Self-care: bathroom use; (0900) cognition; (1611) vision compensation behavior; (1909) Fall prevention behavior; (1828) knowledge: fall prevention; (1620) seizure control; (0202) balance; (0911) neurological status: central motor control; (0201) locomotion; (0208) mobility; (1214) agitation level; (0916) acute confusion level; (2303) recovery; and (2301) response to medication<sup>(16)</sup>.

It is noteworthy that the knowledge of nurses in relation to the planning, implementation and evaluation of nursing care in surgical patients comprise the stages of the nursing process that take place in the dynamics of identification of nursing diagnosis, which aim to outline the care strategies for the surgical patient, with a view to preventing falls. Thus, implementation is the process that aims to achieve the proposed goal of the actions and interventions established in the planning. Nursing evaluation is the continuous step that contributes to determine the need for changes or to adapt some of the other stages of the nursing process<sup>(7)</sup>.

For the implementation of the fall protocol in hospital institutions, it is necessary to know and recognize the social and care importance of the nursing process. The nurse identifies the risk of falling in the surgical patient, plans and implements prevention measures that consist of three levels of care<sup>(14)</sup>. However, the participants of this study did not mention the use of nursing theories to support professional practice.

The Nursing Interventions Classification (NIC<sup>®</sup>) presents nursing interventions in relation to fall prevention (6490), which involve identifying cognitive or physical deficits of the patient; specifying behaviors and factors that affect the risk of falls; investigating history of falls with the patient and the family; signaling these risks with plates near the bed and bracelets; using the bed grids with appropriate length and height to prevent falls; positioning the bed in the lowest position; providing adequate lighting to increase visibility; providing handrails and grab bars visible to the hands; educating family members about risk factors that contribute to falls and how to reduce these risks. These nursing interventions corroborate the findings of this study and its levels of risk of falling<sup>(17)</sup>.

In this sense, when the risk of falling is low, according to the items evaluated in the Morse Fall Scale, nursing interventions include: signaling with plaques and readjusting the environment so that it is free of obstacles and illuminated; maintaining belongings necessary for the patient's reach; maintaining a low bed, locked and with high bars; guiding patients regarding the use of adequate footwear for walking (non-slip); guiding patients and family members regarding the prevention of falls; and offering educational material<sup>(18)</sup>.

However, for the medium level, interventions need to anticipate the needs of comfort and safety of the patient, and the dependence of the nursing team to perform them will be higher. One of the important interventions that was also reported by the participants of this study was the communication of fall risk to caregivers and patients, who will be guided on how to act and when to trigger nursing. At this level, the nurse

highlights the situations that can lead to the fall in the perioperative and guides the maintenance of high grids and the request for help to walk postoperatively after the period of anesthetic recovery and release of the diet<sup>(19)</sup>.

At the high level, interventions related to keeping the environment safe in transfers should be promoted, which are frequent in the perioperative and during anesthetic recovery. It is noteworthy that the surgical patient thus evaluated should be kept at rest in bed and it may be necessary to use devices and mechanical or chemical resources for this purpose, in addition to direct nursing care related to physiological elimination, hygiene and feeding<sup>(10-11,14)</sup>.

The study showed that one of the main difficulties to carry out the stages of the nursing process is the workload of the nursing team and one of the causes is overcrowding in the hospital, which hinders the actions of the team. Another result found in the study corroborated a research, in which hospital institutions face limitations in the number of employees or due to overcrowding in hospitals. This situation makes work tiring and directly affects the quality of care provided<sup>(20-21)</sup>.

This research showed that the main nursing interventions and outcomes are related to the patient's and companion's guidance and education on risks and prevention of falls of the surgical patient, corroborating other studies<sup>(20)</sup>. It is necessary for the companion to understand the hospital dynamics and the importance of having basic health notions appropriate to the environment and favorable to the recovery of the patient, as well as to point out elements that can contribute to the improvement of the services provided, aiming at the execution of the rights of users of the Unified Health System (UHS)<sup>(22)</sup>.

It should be noted that in the search for a quality reference in health care to users, hospitals have been following the parameters established by the National Accreditation Organization (NAO), which involve safety and physical structure of services, organization and practices of quality management<sup>(23)</sup>.

The nursing process and accreditation are presented as an important guide for the

organization and documentation of professional practice, with a view to qualifying nursing care. Professionals have the accreditation process as an action to achieve improvements, when properly planned and implemented, in addition to providing safety, comfort and a service that ensures recovery<sup>(24)</sup>.

Thus, considering hospital accreditation, it is clear that the search for quality of care is decisive for adopting measures that increase patient safety. The information generated by the nursing process, when registered in a complete and reliable way, can ensure the continuity of care and promote patient safety, as recommended by the hospital accreditation of the Joint Commission International (JCI) recommendations for systematic reporting of incidents and adverse events, such as the fall<sup>(25)</sup>.

As a limitation of this research, there stand out the difficulties related to data collection with nurses, in relation to the availability of time to participate in the research in the workplace, given the overcrowding of the service, which was minimized with scheduling to operationalize the collection. Another limitation was the low level of scientific evidence pointed out in studies that relate the nursing process to fall prevention. Thus, new research with methodological approaches that can ensure the strength of evidence for nursing decision-making on the prevention of falls of the surgical patient is necessary.

This study contributes to subsidize actions and preventive interventions of the adverse event fall in the hospital environment, considering that it describes the necessary prevention measures and increases the visibility of nurses' knowledge about the subject in the perioperative context.

## Final Considerations

Nurses' knowledge about fall prevention of surgical patients in the light of the nursing process is essential for quality care. It involves the use of resources, tools and technologies to identify the risk of falling and the implementation of preventive interventions throughout their period of hospitalization, in line with the stages of the



nursing process. However, the use of nursing theories for this purpose was not reported by the study participants, as well as the use of the CIPE® taxonomy.

### Collaborations:

1 – conception and planning of the project: Yara Fernanda Alves Gomes Silva and Amanda Regina da Silva Góis;

2 – analysis and interpretation of data: Yara Fernanda Alves Gomes Silva and Amanda Regina da Silva Góis;

3 – writing and/or critical review: Yara Fernanda Alves Gomes Silva, Luciana Pessoa Maciel Diniz, Maria Emília Vidal Teles, Marismar Fernandes do Nascimento and Amanda Regina da Silva Góis;

4 – approval of the final version: Yara Fernanda Alves Gomes Silva, Luciana Pessoa Maciel Diniz, Maria Emília Vidal Teles, Marismar Fernandes do Nascimento and Amanda Regina da Silva Góis.

### References

1. Brasil. Ministério da Saúde. Agência Nacional de Vigilância Sanitária. Boletim Segurança do Paciente e Qualidade em Serviços de Saúde nº 18: Incidentes Relacionados à Assistência à Saúde [Internet]. Brasília (DF); 2017 [cited 2020 Feb 10]. Available from: <https://www.gov.br/anvisa/pt-br/centraisdeconteudo/publicacoes/servicosdesaude/boletim-seguranca-do-paciente/boletim-seguranca-do-paciente-e-qualidade-em-servicos-de-saude-n-18-incidentes-relacionados-a-assistencia-a-saude-2017.pdf>
2. Lorenzini E, Santi JAR, Bão ACP. Patient safety: analysis of the incidents notified in a hospital, in south of Brazil. *Rev Gaúcha Enferm.* 2014;35(2):121-7. DOI: <https://doi.org/10.1590/1983-1447.2014.02.44370>
3. Pinto VRS, Ferreira SCM. Indicators for the assessment of the quality of nursing care: a descriptive-exploratory study. *Online braz j nurs* [Internet] 2017 [cited 2020 Feb 10]; 16(1):140-51. Available from: <https://www.redalyc.org/pdf/3614/361453991003.pdf>
4. Severo IM, Kuchenbecker RS, Vieira DFVB, Lucena AF, Almeida MA. Risk factors for fall occurrence in hospitalized adult patients: a case-control study. *Rev Latino-Am Enfermagem.* 2018;26:e3016. DOI: <https://doi.org/10.1590/1518-8345.2460.3016>
5. Mata LRF, Azevedo C, Policarpo AG, Moraes JT. Factors associated with the risk of fall in adults in the postoperative period: a cross-sectional study. *Rev Latino-Am Enfermagem.* 2017;25:e2904. DOI: <https://doi.org/10.1590/1518-8345.1775.2904>
6. Spetz J, Brown DS, Aydin C. The economics of preventing hospital falls: Demonstrating ROI through a simple model. *J Nurs Adm.* 2015;45(1):50-7. DOI: 10.1097/NNA.0000000000000154
7. Conselho Federal de Enfermagem. Resolução nº 358/2009, 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); 2009 [cited 2020 Dec 20]. Available from: [http://www.cofen.gov.br/resoluocofen-3582009\\_4384.html](http://www.cofen.gov.br/resoluocofen-3582009_4384.html)
8. Ribeiro J, Souza FN, Lobão C. Editorial: Saturação da Análise na Investigação Qualitativa: Quando Parar de Recolher Dados? *Rev Pesq Qual* [Internet]. 2018 [cited 2020 Dec 20];6(10):3-7. Available from: <https://editora.sepq.org.br/index.php/rpq/article/view/213.279>, 2011
9. Luzia MF, Almeida MA, Lucena AF. Nursing care mapping for patients at risk of falls in the Nursing Interventions Classification. *Rev esc enferm USP.* 2014 [cited 2020 Dec 20];48(4):632-40. DOI: <https://doi.org/10.1590/S0080-623420140000400009>
10. Ribeiro E, Ferraz KMC, Duran ECM. Atitudes dos enfermeiros de centro cirúrgico diante da sistematização da assistência de enfermagem perioperatória. *Rev SOBECC.* 2017;22(4):201-7. DOI: <https://doi.org/10.5327/Z1414-4425201700040005>
11. Santos PHF, Stival MM, Lima LR, Santos WS, Volpe CRG, Rehem TCMSB, et al. Nursing diagnosis Risk for Falls in the elderly in primary health care. *Rev Bras Enferm.* 2020;73(Suppl 3):e20180826. DOI: <http://dx.doi.org/10.1590/0034-7167-2018-0826>
12. Chen Y, Zhu L, Zhou Q. Effects of drug pharmacokinetic/pharmacodynamic properties, characteristics of medication use, and relevant pharmacological interventions on fall risk in elderly

- patients. *Ther Clin Risk Manag.* 2014;10:437-48. DOI: 10.2147/TCRM.S63756
13. Herdman TH, Kamitsuru S. *Suplemento ao Diagnósticos de Enfermagem da NANDA-I: Definições e Classificação 2018-2020: Novidades que Você Precisa Conhecer.* Porto Alegre: Artmed; 2020.
  14. Garcia TR, organizadora. *Classificação Internacional para a Prática de Enfermagem (CIPE®): versão 2017.* Porto Alegre: Artmed; 2018.
  15. Moorhead S, Johnson M, Maas M, Swanson E. *Classificação dos Resultados de Enfermagem: mensuração dos resultados em saúde.* 5a ed. Rio de Janeiro: Elsevier; 2016.
  16. Bulechek GM, Butcher HK, Dochterman JMC. *Classificação das Intervenções de Enfermagem (NIC).* Tradução de Thompson JC, Garcez R, Oliveira SI, Robaina TF. 7a ed. Rio de Janeiro: Elsevier; 2020.
  17. Urbanetto JS, Pasa TS, Bittencout HR, Franz F, Rosa VPP, Magnago TSBS. Analysis of risk prediction capability and validity of Morse Fall Scale Brazilian version. *Rev Gaúcha Enferm.* 2016;37(4):e62200. DOI: doi.org/10.1590/1983-1447.2016.04.62200
  18. Morse JM. *Preventing Patient Falls: Establishing a Fall Intervention Program.* 2a ed. New York (USA): Springer; 2009.
  19. Luzia MF, Argenta C, Almeida MA, Lucena AF. Conceptual definitions of indicators for the nursing outcome "Knowledge: Fall Prevention". *Rev Bras Enferm.* 2018;71(2):431-9. DOI: http://dx.doi.org/10.1590/0034-7167-2016-0686
  20. Carvalho DP, Rocha LP, Barlem JGT, Dias JS, Schallenberg CD. Workloads and nursing workers' health: integrative review. *Cogitare Enferm.* 2017;22(1):1-10. DOI: http://dx.doi.org/10.5380/ce.v22i1.46569
  21. Alabi MA, Mendes VLPS, Pinto KA, Alabi J. Fatores relacionados à queda de pacientes em um hospital público: percepção de coordenadores de enfermagem. *Rev baiana saúde pública.* 2016;40(Suppl 1):168-81. DOI: http://dx.doi.org/10.22278/2318-2660.2016.v40.n0.a2674
  22. Domingues AL, Santos SVM, Góes FSN, Martinez MR. Avaliação da contribuição da acreditação hospitalar no processo de educação permanente em saúde. *Rev enferm UFPE on line.* 2017;11(Suppl 5):2177-84. DOI: https://doi.org/10.5205/1981-8963-v11i5a23373p2177-2184-2017
  23. Rafael DN, Aquino S. Processo de acreditação ONA: desafios para gestores de qualidade em serviços de apoio às Organizações de Saúde. *Rev gest sist saúde.* 2019;8(3):327-41. DOI: http://dx.doi:10.5585/RGSS.v8i3.13470
  24. Oliveira JLC, Hayakawa LY, Versa GLGS, Padilha EF, Marcon SS, Matsuda LM. Nurses' performance in the accreditation process: perceptions of the multiprofessional team from the hospital. *Rev baiana enferm.* 2017;31(2):e17394. DOI: http://dx.doi.org/10.18471/rbe.v31i2.17394
  25. Novais do Rio TGG, Ruiz LD, Fontoura RF, Britto KAT, Faria TER. Queda intra-hospitalar e Danos Associados: Comparação em um Hospital Privado. *Panam J Trauma Crit Care Emerg Surg.* 2022;11(1):22-5. DOI: http://dx.doi.org/10.5005/jp-journals-10030-1364

Received: March 29, 2021

Approved: September 5, 2022

Published: October 24, 2022



The *Revista Baiana de Enfermagem* use the Creative Commons license – Attribution -NonComercial 4.0 International.

<https://creativecommons.org/licenses/by-nc/4.0/>

This article is an Open Access distributed under the terms of the Creative Commons (CC BY-NC). This license lets others remix, adapt and create upon your work to non-commercial use, and although new works must give its due credit and can not be for comercial purposes, the users do not have to license such derivative works under the same terms.