

NURSING CONTRIBUTIONS ON PATIENT SAFETY IN MEDICAL CLINICS: AN INTEGRATIVE REVIEW OF THE LITERATURE

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Abstract: The objectives of the present study were to evaluate the contribution of nurses to the area of knowledge of patient safety in clinical medicine and to identify, in the current literature, articles that contain writings by nurses on this topic. This is an integrative literature review, using the PICO strategy and with the guiding question “How do nurses contribute to patient safety in medical clinics”? Using the descriptors nursing / nurse / nurse, Patient safety and medical clinic, 16 studies were selected for analysis in the study. As categories for analyzing the articles, the six International Safety Goals were used: (1) Identify patients correctly; (2) Improve the effectiveness of communication between care professionals, ensuring standardized information and efficient communication between the health team; (3) Improve the safety of high-alert medications through careful and protocol administration of medications; (4) Ensuring surgeries with correct intervention site, correct procedure and correct patient; (5) Reduce the risk of healthcare-associated infections, primarily through prevention with proper handwashing ; and (6) Reduce the risk of injury to patients from falls. However, the study makes evident the need for improvements in practices to achieve the goals, and it is essential to devise strategies with a specific focus on patient safety. It is also evident, in the work in question, that adherence to the proposed techniques is hampered by the time to perform the care, the degree of dependence of the patients, the excessive volume of work and the reduced number of nurses to provide care; and the lack of knowledge of risk factors for patient safety.

Keywords: Nursing, Patient safety, medical clinic.

INTRODUCTION

Hospitalization is a challenging period for the individual due, among other factors, to changes in the circadian cycle, eating habits, mobility and medication intake with their side effects. During hospitalization, patients of all ages spend more than half of their time confined to bed and little time is devoted to short walks in the hospital. A recent study showed that limitations in mobility, self-care and cognition activities characterize a reduction in functionality and can directly interfere with the clinical picture, hospitalization time and functionality of patients after hospital discharge [1].

During the performance of health care, numerous incidents occur, particularly adverse events, defined as incidents with harm to the patient. These represent a high morbidity and mortality in health systems [2].

For this reason, the World Health Organization (WHO), showing concern about the situation, created the *World Alliance for Patient Safety* (World Alliance for Patient Safety), in order to organize concepts and definitions about patient safety, proposing measures to reduce adverse events themselves and the risks of their occurrence [2]. The WHO defines patient safety as a way of reducing the risk of unnecessary harm to the individual's health care to a minimum [3].

Following this global trend, the Ministry of Health created the National Patient Safety Program (PNSP), established by Ordinance GM/MS No. [two]. Thus, the purpose of this area of knowledge and action is to prevent harm or injury to patients resulting from care that is intended to help them [3].

Cavalcante [4] states that the topic is relevant and current, bringing up issues that permeate the daily life and practice of nurses. This professional category is directly involved in this care process, acting as a

promoter of actions for patient safety. The World Alliance for Patient Safety established, in 2005, six International Safety Goals, which are (1) Identify patients correctly, ensuring that the correct patient will undergo the procedures intended for him; (2) Improve the effectiveness of communication between care professionals, ensuring standardized information and efficient communication between the health team; (3) Improve the safety of high-alert medications through careful and protocol administration of medications; (4) Ensuring surgeries with correct intervention site, correct procedure and correct patient; (5) Reduce the risk of healthcare-associated infections, primarily through prevention with proper handwashing ; and (6) Reduce the risk of injury to patients from falls.

Thus, the relevance of the theme is observed, since the patient of the medical clinic presents a profile that must be well recognized, since its aspects demand care that is carried out within the pillars of patient safety, in order to be successful in its recovery, because according to Laus [5] there is a greater degree of demand from these patients related to the care provided by the health team.

After the above, it is defined as a general objective to discuss the contribution of nurses to the area of knowledge of patient safety in clinical medicine and as a specific objective to identify in the current literature articles that contain writings by nurses on this topic.

METHODOLOGY

This is an integrative literature review, using the PICO strategy [6] (Population, Intervention, Comparison and Outcome), which was used to produce the guiding question “How nurses contribute to patient safety in medical clinics”?

Based on this question, the following descriptors were established: “nursing”; OR “nurse” OR “nurse” AND “Patient safety” AND “medical clinic”. The database used for the research was BDNF and the collection period comprised the month of August 2021.

Inclusion criteria were the writing of the article in Portuguese, full texts, written by nurses, published from 2013 onwards and containing nursing contributions to patient safety in clinical medicine in their sample. The time frame was based on the year of creation of the National Patient Safety Program by the Ministry of Health. As exclusion criteria, opinion articles, theses or experience reports were not considered.

The analysis of the title of the articles, the reading of the abstract, the full reading of the article and the grouping of articles through categories based on the six International Safety Goals established by the World Alliance for Patient Safety were performed sequentially.

At the end of the methodological path described above, 16 articles were used as a result and for the discussion of this work.

RESULTS

As already mentioned, we used the six International Security Goals as categories for analyzing the articles.

The first category of analysis was “identifying patients correctly” and three articles were found [7,8,9] that highlighted the use of forms to identify the patient signaling the presence of some risk, in addition to applying in practice the proposal to implement the wristband with barcode on patient identification.

Five articles [9,10,11,12,13] were related to the goal “Improve the effectiveness of communication” among healthcare professionals, showing that interpersonal problems among professionals impair

good communication. In this sense, they suggest that continuing education and multidisciplinary meetings with simulations can improve communication between professionals; need for standardization of communication at the time of transfer of care.

Among the articles, nine [7,9,10,14,15,16,17,18,19] were related to the goal “Improve the safety of high-alert medications” and point to commonly found errors such as illegible prescription, absence of information, misconduct and disorganization, indicating the need for standardization, organization, guidance and permanent education of the team in order to reduce adverse events;

In the category “Ensuring surgeries with correct intervention site, correct procedure and correct patient”, only one article [20] was found, showing that failure to perform technical-scientific procedures correctly leads to harmful errors to the patients involved, being vital constant updates and actions aimed at preventing possible errors;

Only two articles [9,21] were related to the goal “Reduce the risk of infections associated with health care”, evidencing hand hygiene as a simple and effective procedure in the prevention and control of infections caused by contaminated hands during the period of care provided to the patient.

Two articles [9,22] addressed the goal “Reduce the risk of injury to patients from falls”, elucidating the importance of using clinical protocols during patient transport, transfer between bed and chair and walking for use, mainly the bathroom.

The table below shows the results of this study in a schematic way.

DISCUSSION

Regarding the category “identify patients correctly”. The importance of checking the patient’s name for the reduction of errors during medication administration was evidenced [6]. According to the recommendations of the Ministry of Health [23], there are two identifiers for confirming the patient’s name: the nominal identification in the medical record and the date of birth or medical record number, which must happen before any care.

Silva [8] reports that a part of the patients do not use the identification bracelet because they consider it to be irrelevant to the use, while other patients reported that the absence of the bracelet was because no professional performed such a procedure. In addition, the same author states that the condition of the bracelet is crucial for patient identification and, consequently, for patient safety.

Siman and Brito [9] emphasize that the first criterion to determine the existence of a safety culture in a health institution is the identification of risks to patient safety.

In the analysis category “Improve the effectiveness of communication”, it was evidenced that problems of interpersonal relationship between the different categories of health professionals in a unit, as well as the lack of knowledge of the activities of these professionals in the process, make it difficult to identify the responsibilities of each one, leading to failures in the organization of the nursing service [10,11]. In order to reduce such resulting failures, it is important to adopt continuous education and multidisciplinary meetings using study groups and realistic simulations, thus contributing to the improvement of communication and professional interdisciplinarity [9].

Another study [12] states that 65% of adverse events are caused by ineffective communication between nursing

TITLE	AUTHORS	ANO DE PUBLICAÇÃO
Conformities and non-conformities in the preparation and administration of antibacterials.	Pereira FG, Aquino G , Melo GA, Praxedes CD, Caetano JÁ.	2016
Analysis of patient identification adherence in the medical clinic sector.	Silva MM, Assad LG, Pérez EF Júnior, Paula VG, Bessa JH, Teti TT.	2019
Changes in nursing practice to improve patient safety.	Siman AG, Brito MJ.	2016
The portrait of adverse events in a medical clinic: analysis of a decade.	Costa NN, Silva AE , Lima JC, Barbosa MR, Freitas JS, Bezerra AL.	2016
Analysis of notifiable circumstances: Incidents that may compromise patient safety.	Sagawa MR, Silva AE, Lima JC, Bezerra AL, Costa N, Sousa MR, Gimenes FR.	2019
Effective communication in temporary transfers of care for hospitalized patients.	Hemesath MP, Kovalski AV, Echr IC, Lucena AF, Rosa NG.	2019
Nursing and hospitalized clients: communication in a military unit.	Braga BR; Lima AMM; Souza VR; Freitas VL; Costa AJ.	2020
Medication errors and risk factors associated with their prescription.	Souza AF, Queiroz JC, Vieira AN, Solon LG, Bezerra EL.	2019
Medication error: conceptions and conduct of the nursing team.	Siman AG, Tavares AT, Carvalho CA, Amaro MO.	2021
Prescription and administration errors involving a potentially dangerous drug.	Silva JS, Almeida PH, Perini E, Pádua CA, Rosa MB, Lemos GS.	2017
Interruptions in nursing work as a risk factor for medication errors.	Santana SB, Rodrigues SB, Stival MM, Rehem MT, Lima RL, Volpe GC.	2019
Nursing team care in safe peripheral intravenous puncture in hospitalized elderly.	Santana RC, Pedreira LC, Guimarães FE, Almeida LP, Reis LA, Menezes TM, et al.	2019
Incidence rate and flushing in the prevention of peripheral venous catheter obstructions.	Braga LM, Parreira PM, Arreguy-Sena C, Carlos DM, Mónico LS, Henriques MA.	2018
Knowledge of nursing professionals from a private hospital about hand hygiene.	Jezewski GM, Loro MM, Herr GE, Fontana RT, Aozane F, Santos FP, et al.	2017
Contributions to promoting patient safety and preventing falls.	Cigana FA, Silva RM, Beck CL, Trindade LR, Cattani AN, Cigana, DJ.	2019
Evaluation of peripheral venous catheter maintenance care through indicators.	Gonçalves KP, Sabino KN, Azevedo RV, Canhestro MR.	2019

professionals, and the need to implement communication standardization strategies, thus favoring good safety practices, is also evidenced.

Good communication between the nursing team and the patient is essential for the development of a more satisfactory and humanized work, resulting in a relationship of greater trust between the professional and the user/family member, in addition to contributing to the identification of needs that are not explained through communication. verbal [13].

In the analysis of the category “Improve the safety of high-alert medications”, we can report the importance of administering medications based on scientific technical knowledge, in order to avoid adverse events related to their performance.

Many errors related to medications are institutional responsibility, since the environment is fundamental from the preparation process to the administration of the medication [7]. Interruptions, large circulation of health professionals at certain times and overload of professionals were the main causes of errors evidenced in clinical practice. The increase in demand from nursing professionals has resulted in medication omission, unsupervised administration of oral medications, especially when they are delivered to the patient or companion, which can result in medication exchange between patients and ingestion of the wrong drug, as well as failures in communication between professionals [10]. The same author draws attention to the delay in releasing medications at the pharmacy, which leads to delays in medication administration.

Prescribing errors are related to reduced readability of the handwritten prescription; lack of information about the medication, such as dosage, dilution and scheduling, as well as about the patient himself; and the

use of abbreviations [14,15]. There are still misconduct errors, such as administering the wrong medication; wrong route and wrong time. These errors are accentuated by other factors, such as a tumultuous environment; lack of attention; work overload and lack of training. Therefore, the need to standardize prescriptions is evident, as well as to carry out updates to the nursing team on the most frequent errors in medication administration that put patient safety at risk [16].

In the context of administering potentially dangerous drugs, the importance of the prescriber's name, signature and date of prescription can be highlighted, which allow the validation of the prescription and the ease of communication by the team in cases of identification of errors, reinforcing the need implementation of a system of standard abbreviations. The same authors report the importance of patient identification, indicating the insertion of the medical record number in the prescription and the need to correctly check the name, bed and treatment unit that the patient is in for the safe administration of the medication. In addition, they show the need for better organization and guidance of the team and availability of personnel so that there are no overloads, aiming for nursing to be an important barrier to error prevention [16, 17].

As for the administration of blood components, recent studies point to the use of strict protocols aimed at maintaining patient safety [9].

Furthermore, Santana [18] draws attention to the choice of puncture site and highlights, as a preference, the veins of the forearm and back of the hand, followed by the veins located in the arm and in the cubital fossa. The choice must be made based on mobility, related to accidental removal, and on the type of catheter, related to the type of medication

and appearance of the vein. Still on the safety of the medication circuit, it is worth noting the importance of care with a correct period for changing the systems, visibility of the access insertion site and the correct handling of connections and infusion lines [19].

As for the fourth category of analysis “Ensuring surgeries with correct intervention site, correct procedure and correct patient” discussed here aims to minimize risks before, during and after surgical procedures. A study carried out by Braga [20] evidences the use of the flushing technique (SAS: 0.9% saline solution – flushing, drug administration, followed by saline solution – flushing) as a means of reducing the rate of catheter obstruction peripheral venous, which occurs between 2% and 22% of cases in all age groups, which makes the administration of intravenous therapy unfeasible to the point of compromising the dose/minute infusion, as well as the plasma level and the effect of the drug, since requires the removal of the obstructed catheter and new catheterization, which entails a risk of infection for the patient in addition to discomfort. The use of this technique then provides a lower rate of obstruction, as it maintains the permeability of the catheter, thus ensuring more patient safety and the quality of care provided.

Regarding the category of analysis “Reduce the risk of healthcare-associated infections”, it is common knowledge that, as a primary prevention measure, hand hygiene is recognized worldwide and considered very important in the control of infections related to health care [24].

In a study carried out with nursing professionals on the knowledge about hand hygiene in an inpatient unit, Jezewski [21] points out that the participating professionals recognize that the hands are the main route of transmission of microorganisms. This study points out that infection control must be

addressed in order to guarantee quality care, through the education and training of these professionals. Thus, the author recommends that the minimum time for hand hygiene with alcohol preparation be 20 to 30 seconds, in order to reduce the microbial load. However, the alcohol solution must be replaced with water and liquid soap when hands are visibly dirty. Still, it is important to emphasize that alcoholic preparations must be available and accessible to professionals. In a study by Siman and Brito [9] they identified that the use of protocols in hand hygiene are good changes in practice that must be adopted to improve and ensure patient safety.

Finally, with regard to the category “Reduce the risk of injury to patients from falls”, a recent study [22] points out that changes in the work process are necessary for the prevention of falls in health care. Teamwork with other health professional categories, training and educational actions with the active participation of nurses, the adequacy of the number of workers needed to meet the demand of patients, the presence of the companion during hospitalization and environmental prevention measures, such as the installation of grab bars in the bathroom and shower are cited as the fundamental measures for this.

A fall, an event in which a patient ends up unintentionally on the floor or at another level below, causing or not injury, increases the length of hospital stay, causing physical and psychological discomfort to them and increasing treatment costs [22].

Siman and Brito [9] emphasize that the practice of preventing falls involves the observation of intrinsic factors, such as age, underlying pathology and drug use, and extrinsic factors, such as inadequate lighting, beds and chairs. It is important to emphasize that, after analyzing the factors mentioned above, the nurse must establish an action

and care plan to reduce the possible factors that would lead to the fall. This way, they emphasize that it is not enough to assess the risk, but also to intervene in these factors, through training of professionals, analysis of the occurrence of previous falls and their reasons, and actions taken by the institution's team.

CONCLUSION

Through this literature review, the contributions of nursing regarding patient safety were evidenced, in which practices that derive, in some way, from the six patient safety goals proposed by the W.H.O. (World Health Organization) were identified.

Nursing has developed its techniques, always attentive to the risks present in the environment, seeking better care and management actions,

However, the study makes evident the need for improvements in practices to reach the goals, being essential to devise effective strategies that help in the identification of the patient; in the communication between the team and between nurses and patients; in the prescription and administration of medicines; in the correct execution of surgeries, among other items related to patient safety.

It is also evident, in the work on screen, that adherence to techniques that influence patient safety is hampered by the time to perform care, the degree of dependence of patients, the excessive volume of work and the reduced number of nurses to provide care. care; and the lack of knowledge of the risks for infections associated with health care.

The actions implemented, according to the studies, seek changes in nursing practice, focusing on the patient's well-being and safety during the hospital stay process.

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