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NURSING ACTIONS FOR PATIENT SAFETY IN HOSPITALS: INTEGRATIVE REVIEW

AÇÕES DE ENFERMAGEM PARA SEGURANÇA DO PACIENTE EM HOSPITAIS: REVISÃO INTEGRATIVA

ACCIONES DE ENFERMERÍA PARA LA SEGURIDAD DEL PACIENTE EN LOS HOSPITALES: REVISIÓN INTEGRATIVA

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ABSTRACT

Objective: to analyze the scientific production on managerial and Nursing care actions for patient safety in hospital institutions. **Method:** integrative review, which used the databases: Latin American Literature in Health Sciences (LILACS), *Medical Literature Analysis and Retrieval System Online* (MEDLINE) and Nursing Database (BDENF). We selected 15 articles after meeting the inclusion and exclusion criteria. **Results:** the main actions identified were risk management and identification of adverse events. In addition, effective communication and continuing education actions have also been developed for safer care. When considering the international safety targets, no studies were found addressing patient identification. **Conclusion:** security must be instituted as a cultural process and not specific and isolated actions. **Descriptors:** Patient Safety; Nursing; Delivery of Health Care.

RESUMO

Objetivo: analisar a produção científica sobre ações gerenciais e assistenciais da enfermagem para a segurança do paciente nas instituições hospitalares. **Método:** revisão integrativa, que utilizou as bases de dados: Literatura Latino Americana em Ciências da Saúde (LILACS), *Medical Literature Analysis and Retrieval System Online* (MEDLINE) e Base de Dados em Enfermagem (BDENF). Foram selecionados 15 artigos após atendimento aos critérios de inclusão e exclusão. **Resultados:** as principais ações identificadas foram o gerenciamento dos riscos e identificação de eventos adversos. Além disso, a comunicação efetiva e ações de educação permanente também têm sido desenvolvidas para a assistência mais segura. Considerando as metas internacionais de segurança não foram encontrados estudos abordando identificação do paciente. **Conclusão:** a segurança deve ser instituída enquanto processo cultural e não ações pontuais e isoladas. **Descritores:** Segurança do Paciente; Enfermagem; Assistência à Saúde.

RESUMEN

Objetivo: analizar la literatura científica sobre acciones de gestión y asistencia de enfermería para la seguridad del paciente en los hospitales. **Método:** revisión integral, que utilizó las bases de datos: Literatura Latinoamericana en Ciencias de la Salud (LILACS), *Análisis de Literatura Médica y Sistema de Recuperación Online* (MEDLINE) y Base de Datos de Enfermería (BDENF). Se seleccionaron 15 artículos después de atender a los criterios de inclusión y exclusión. **Resultados:** las principales acciones identificadas fueron la gestión de los riesgos y la identificación de eventos adversos. Además, la comunicación efectiva y iniciativas de educación permanente también han sido desarrolladas para la asistencia más segura. Teniendo en cuenta las metas internacionales de seguridad, no se encontraron estudios abordando la identificación del paciente. **Conclusion:** la seguridad debe establecerse como un proceso cultural y no medidas concretas y aisladas. **Descriptores:** Seguridad del Paciente; Enfermería; Prestación de Atención de Salud.

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INTRODUCTION

Initiatives focused on patient safety have started from the publication of the report: *To err is human: building a safer health system*. The study, in which 30,121 hospitalization records were analyzed, and it was identified that in 3.7%, iatrogenic events occurred (6.5% permanent dysfunctions and 13.6% patient deaths) and, that up to 98,000 deaths per year in the United States could have been avoided due to medical errors.¹ These results have impacted and alerted health institutions to the adverse event (AE), reinforcing and encouraging studies in the prevention of patient error and safety.

Patient safety should be applicable in all aspects related to health care and convey the appropriate meanings. Within the principles of the International Classification of Patient Safety (ICPS) proposed by the World Health Organization (WHO), patient safety can be defined as a reduction of risks of injury or harm, associated with health care, within a minimum acceptance.²

It should be noted that the error is the failure, an action that occurs outside the planned or incorrect application of the plan,³ and can cause several damages to the patients, from the increase of their stay in a hospital environment, need for diagnostic and therapeutic intervention, and even death. In addition to direct damage to the patient, there are also economic aspects, such as increases in hospital admission costs.⁴

In recent years, studies have shown that the practices of health professionals have been marked by high error rates, reported injuries in patients, failures in hospital care systems, permanent damage and deaths. Inappropriate, unsafe and negligent practices affect one in ten patients, on average, in developed countries.⁵⁻⁷ The risk of error in the hospital environment is even greater.⁸

Several aspects may contribute to patient safety. In 2009, six international safety targets were launched by WHO and correspond to the correct identification of the patient, clear and effective communication, care related to drugs considered high risk, aspects that give greater safety in surgeries, reduction of risks of infection and risks of the patient falling.²

In this sense, because of the role of the nurse in relation to the patient, this professional can avoid mistakes when making assertive care decisions, besides taking a leading role in promoting the use of evidence to promote safety and quality of care.⁹ However, it is emphasized that

standardization of care may not adequately guarantee patient safety, and there is evidence that more efforts are needed to improve processes within health institutions, in a sense of safer care.¹⁰ Policies and procedures are adopted for protecting patients from harm, however, a deeper understanding of the "why" of a particular adverse event occurred, with less focus on the individual who made the mistake, may have positive results for the safety culture.

It is assumed that there are gaps regarding the establishment of protocols, effective implementation and evaluation of the process to subsidize managerial and assistance actions. In this sense, Nursing managers as well as care nurses, should invest in the implementation and maintenance of a safety culture through information and learning.

With the considerations presented, we ask: What management and care actions that involve nurses have been adopted to achieve patient safety in hospital institutions?

In this sense, the objective of this study is to analyze the scientific production on management and Nursing care actions for patient safety in hospital institutions.

METHOD

Integrative review¹¹, with the following question: What management and care actions involving nurses have been adopted to achieve patient safety in hospital institutions? Thus, the steps leading to this integrative review were the identification of the theme and research question for the elaboration of the integrative review; the establishment of criteria for inclusion and exclusion of studies/sampling or search in the literature; the definition of the information to be extracted from the selected studies; the evaluation of included studies; the interpretation of results; the presentation of the knowledge review/synthesis and the conclusion towards the objectives.¹¹

Data collection was performed from August to November, 2014, in the databases: Specific Databases of Nursing (BDENF), *Medical Literature Analysis and Retrieval System Online* (MEDLINE) and Latin American and Caribbean Literature in Sciences Of Health (LILACS). In the first stage of search, these descriptors were used: "Patient safety" AND Nursing AND "Health care", obtaining 190 articles: 155 from MEDLINE, 19 from LILACS and eight from BDENF. The titles and abstracts were read and 33 articles, selected.

In a second stage of search, were associated with the descriptor "patient safety"

the terms practices and organization, with the following search strategy: "patient safety" (AND) practices (AND) organization, aiming to obtain the largest number of articles that contemplated the proposed objective. There were 93 articles in MEDLINE, three in LILACS and none in BDNF. Titles and abstracts have been read and ten articles, selected. The last stage of selection of the articles was carried out with the reading of the 43 articles, selected in the first and second stage, in full. These were read and selected, according to the eligibility and quality criteria, choosing those that contemplated the proposed objective and fit the defined criteria, finalizing a sample of 15 articles.

To avoid bias in the selection of publications, this was done by two researchers, with independent selection based on the inclusion and exclusion criteria, and guided by the research question, without disagreements.

The inclusion criteria of the articles were: publications in English, Spanish and Portuguese; with no publication date limit; that presented experiences of implantation and/or evaluation of patient safety in hospitals; complete articles indexed and available in these databases. These criteria

were defined based on the research question and guided the study. The exclusion criterion, was defined as: editorials, theses and dissertations; literature review; book chapters; articles that were not available for reading and did not address the patient safety issue or that did not answer the research question initially established.

The data was organized, analyzed and interpreted in a synthesized, way by means of the elaboration of a synoptic table, with the following items: identification of the article, authors, year and publication period; study objectives; study design and main results. To facilitate the understanding, the selected publications were grouped into two categories and discussed.

RESULTS

From the 96 articles found, using the inclusion criteria, 15 articles were selected. The largest number of articles included was from MEDLINE (12), followed by LILACS (5). After completing the last selection stage, BDNF did not obtain any article that contemplated the objective. The English language was predominant (68%), corresponding to 12 publications, according to figure 1.

Article	Objective	Tipo de estudo	Principais resultados
1- Oliveira RM et al. Strategies to promote patient safety: from identifying risks to evidence-based practices. Anna Nery Nursing School Journal. 2014.	Identify and analyze strategies to promote patient safety	Qualitative descriptive study	Manage physical, chemical, clinical, care and institutional risks; and barriers and opportunities that imply the (un) safety of the patient. They referred to practices based on international goals.
2- Tartali JÁ, Bohomol E. Adverse events in surgical patients: knowledge of nursing professionals. Acta Paul Nursing. 2013.	Check the knowledge of the nursing team on adverse events	Cross-sectional and descriptive study	Investigate adverse surgical events: routine surgery programming, overworked or distracted staff members. Lack of communication between the member of the nursing team and the medical team. The importance of reporting adverse events is emphasized.
3- Velho JM, Treviso P. Implantation of quality program and accreditation: contributions to the safety of the patient and the worker. Journal of Health Administration. 2013.	Know the opinion of the patient on the implementation of quality	Descriptive qualitative research	Training and professional qualification contribute to improvements in the practices and knowledge of professionals and encourages the search for higher qualification. Implantation of international patient safety goals and educational actions stimulate good practices.
4- Piglet IMTA, Oliveira RM, Milk SS, Sobral MC, Figueiredo SV, Cadet MC. Analysis of the communication of adverse events from the perspective of nursing assistants. Rene Mag. 2013.	Analyze the process of Communication of adverse events in the context of the hospital	Descriptive qualitative research	There is communication of adverse events and also underreporting and inadequate analysis of cases; The nurses play roles of educators, but were not unanimous in identifying the documents indicated for recording events; and punitive culture prevails.
5- Bunkenborg G, Samuelson K, Akeson J, Poulsen I. Impact	Study that explores the	Qualitative descriptive	Knowledge, skills and involvement impact on clinical

of professionalism in in-hospital bedside monitoring practice. Journal of Advanced Nursing. 2012.	practice of nursing and monitoring of in-patient care	clinical study	practice and hospital bedside monitoring. Initiatives to improve safety: professionalism among nurses, embracing individual and organizational attributes.
6 - Peterson TH, Teman SF, Connors RH. A safety culture transformation: its effects at a children's hospital. J Patient Saf. 2012.	To report the experience of improving pediatric patient safety in a hospital, implementing safety practices and changing the culture.		An estimated 68% decrease in the number of safety events. The ventilator-associated pneumonia bundling increased from 2% to 96%. The hand hygiene compliance rate increased from 56% to 95%. Medication errors with serious damage were reduced. Key strategies included training staff, training in root cause analysis, classifying event failure mode and safety behavior, adopting indicators, and leading nursing.
7- Di Benedetto A, et al What causes an improved safety climate among the staff of a dialysis unit? Report of an evaluation in a large network. J Nephrol. 2011.	Analyze what creates a security climate between employees	Quanli-quantitative	Promoting the communication and implementation of training programs. They are considered valid tools to improve safety.
8- Skoufalos A, et al. Improving awareness of best practices reduces surgical site infection: a multistakeholder approach. American Journal of Medical Quality.2012.	Describe Multilateral Educational Process for better practices	Quantitative	A patient-centered educational initiative was created that involved a partnership between all professionals, patients and the hospital organization through a training program.
9- Hillin E, Hicks RW. Medication errors from an emergency room setting: safety solutions for nurses. Crit Care Nurs Clin North Am. 2010.	This article reviews methods to reduce medication errors in the emergency room	Documentary	The most frequent error was medication error. The nursing team, in the emergency services, is inadequate to deal with the overload of patient consultations. Care is fragmented and methods designed to support patient safety are compromised.
10- Gillespie BM, Chaboyer W, Longbottom P, Wallis M. The impact of organizational and individual factors on team communication in surgery: a qualitative study. Int J Nurs Stud. 2010.	Analyze organizational and individual factors that influence teamwork in surgery.	Qualitative	Effective teamwork and communication is critical to patient safety. The process for improving communication has been slow. Fundamental work, and interdisciplinary diversity, and education.
11- Teng CL, Dai YT, Shyu YI, Wong MK, Chu TL, Tsai YH. Professional commitment, patient safety, and patient-perceived care quality. J Nurs Scholarsh.2009.	Examine how the professional influences patient safety	Qualitative case study	The professional commitment positively influenced the safety of the patient, as well as the quality of the global assistance perceived by the patient. In addition to the positive influence on all safety indicators.
12- Chaboyer W, McMurray A, Johnson J, Hardy L, Wallis M, Chu S. Bedside Handover: quality improvement strategy to "transform care at the bedside". J Nurs Care Qual. 2009.	To analyze, from the point of view of patients and nurses, their perceptions about Handover	Qualitative, used the fundamental theory approach	It changed from verbal communication to handover method, which brought significant improvements to patients; resulted in better discharge planning; sharing knowledge; directing actions; as well as improving the safety and efficiency of teamwork.
13 - Gutierrez F, Smith K. Reducing falls in a definitive observation unit: an evidence-based practice institute consortium project. Crit Care Nurs Q. 2008.	Evaluate fall prevention protocol.	Cross-sectional study.	Despite the adoption of the protocol, rates and drop occurrence remain high. Reason for fall is multi-factorial and interdisciplinary. Human resources are essential elements for changing practices that are vital for reduction.
14- McDonald R et al. Rules and guidelines in clinical	Explore attitudes	Qualitative	The opinion of physicians about the contribution of guidelines

practice: a qualitative study in operating theaters of doctors and nurses' views.Qual Saf Health Care. 2005.	toward physician orientations, surgical team nurses		to safety and clinical practice is different from the opinion of nurses. Doctors have rejected written rules. Nurses adhere to the directive as synonymous with professionalism.
15- Antonoff MB, Berdan EA, Kirchner VA, Krosch TC, Holley CT, Maddaus MA, D'Chunha J. Who is covering our loved ones: surprising barriers in the sign-out process? Am J Surg. 2013	Assess practices of patient safety and barriers to communication	Qualitative description	The implementation of a guideline did not achieve significant improvements. There was no evidence of patient safety in the continuity of care. Necessary adequacy of the information provided to the patient and the the staff on call. Further efforts to improve handover processes are needed.

Figure 1. Selected studies in review according to author, article title, journal, year of publication, objective, type of study and main results. Belo Horizonte (MG), Brazil, 2014.

DISCUSSION

◆ Actions for the promotion of patient safety

In the analysis of the studies, it was verified that risk management occurs with identification of the AEs, with emphasis on actions to promote patient safety. It was observed that health professionals tend to value the description of events from clinical risks. On the other hand, a study showed that nurses have identified the existence of physical, chemical and mechanical risks that affect Nursing care and that generate insecurity for the patient assisted in the institution.¹²

However, a single study has shown that there is not always a notification and discussion about adverse events, and that there is still a prevalence of punitive culture, which promotes underreporting.¹³ However, there is a need to treat event notification as a source of data to promote improvements in care, generating greater safety for the patient and the professional.

In the analysis of the studies, it was observed that the greatest concerns of the professionals, in direct care of patients, focused on mechanical risk: the risk of bed fall, an indicator of the quality of Nursing care. The patient at risk of falling must be accurately identified and the professional, adheres to evidence-based practices for prevention. Apart from this, interdisciplinary multi-factorial fall protocols, should be adopted, supporting the process of planning, managing and evaluating Nursing actions, through safer practices and using results of the fall indicator.^{12,14-15}

In addition to risk management, nurses have adopted evidence-based practice in controlling falls, health care-related infection, and adverse events related to the surgical procedure.^{12,14-15}

In the context of safe surgery, a study raised as a cause for the occurrence of adverse surgical events failures in routine elective procedures (35.5%), lack of communication between the nursing team member and the medical staff (32, 2%), and unprepared staff to identify near misses (32.3%), which could prevent adverse events from occurring. Such failures are due to the overload of the Nursing team, distraction or occurrences in the unit and inactive shift.¹⁴ The findings reveal that there must be an integration of the multidisciplinary team, effective communication, as well as a co-responsibility of the professionals.

In order to change the safety culture and to implant processes, practices and measures to sustain improvements, a study developed in a 200-bed children's hospital showed significant improvements with the adoption of indicators, as well as their analysis; identification and discussion of the root cause; classification of failures, events, safety behaviors and classification of serious events.¹⁶ The indicators have made it possible to evaluate improvements with transparency, promoting the incorporation of safe practices, with impact on clinical measures and results of a comparative analysis among similar institutions to help improve patient safety.¹⁶

After two years of the initiative, there was an estimated reduction of 68% in the number of events. Pneumonias associated with mechanical ventilation decreased dramatically; hand hygiene compliance rate increased from 56% to 95%; the plan of care for patients rose from 0% to 83% in six months. Medication errors, with serious damage, were also reduced.¹⁶

In Nursing care, the most frequent errors are related to medication administration. Practices for the improvement in this area are focused on the training of basic medication administration procedures with the team. The occurrence of three cases of medication

errors involving the nurse¹⁷ reinforced the idea that this error can be identified as a failure in the process, which may increase the morbidity and mortality of the patient.

The professional needs to understand how the health system can contribute to mistakes, that is, to better understand the service and all the processes that involve the administration of medication and health care, besides remaining vigilant during the periods of medication administration.¹⁷

Thus, actions such as identifying risk or alert medications known to be prone to harm, using technological solutions such as smart pumps or other assistive devices, examining the storage and proximity of two products and access to potentially hazardous products, such as those with similar names and using the method of checking the correct items by two nurses, check-double¹⁷, are measures adopted to reduce medication error.

At the administrative level, this study showed that the health institution has appropriated tools such as Medication Error Reports and Prevention, which assists in the standardization, evaluation and trends of medication errors.¹⁷ As well as the use of checklists, in addition to the application of current guidelines that help reduce errors, such as surgeries, preventing the occurrence of adverse events.¹⁸

Given the analysis of the studies, it was verified that, in order to reduce errors in medication administration, the best practices to be adopted are focused on the training of the basic procedures of medication administration with the Nursing team.

Regarding the clinical practice of the nurse, a study showed that care without safety and quality in hospital wards can lead to hospitalizations in the Intensive Care Center (ICC), cardiac arrest or death. Intervention strategies include care and management actions such as frequent measurements of vital parameters, knowledge, skills, personal reflections, intra and inter-professional communication and collaboration. Professional awareness had a decisive impact on Nursing supervision to improve patient safety.¹⁹

In addition to professional awareness, the implementation of guidelines for diagnosis is considered an effective tool to adjust notifications, diagnoses, evaluations, treatment, and promotion of patient self care.^{15,20} Professional commitment and quality care also influenced positively To patient safety, improving all safety indicators in relation to injuries, falls, medication errors,

incomplete or incorrect documentation, delayed care, except for nosocomial infection rate.²¹

Regarding the communication aspect, studies pointed out the concern with effective communication, in an open and fair manner, and notification of the event without punishment of individuals as basic principles of patient safety²²⁻²³ and that the situation should be notified to those in charge of the unit.²³ A study, involving a surgical team, associated communication with teamwork, based on education because it improves communication and increases professional understanding, determinants for patient safety. In addition, there is a relationship between organizational and individual factors that influence communication.²²

A study in Australia identified that communication among Nursing professionals was not effective because the time of information transmission was wasted with irrelevant information, there was disagreement among the professionals, and some did not see their patients until an hour after the start of the shift. These factors contributed to the lack of information about the patient, inconsistencies in the medical record, as well as insufficient information and patient insecurity.²⁴

Thus, in an attempt to change this situation, the institution implemented a bedside handover, in which professionals began to report patients' cases to each other and to the patient, maintaining an open channel of communication, through the patient relationship and the transference of responsibility between the team. In this way, understandable language is an essential element to promote patient safety.^{18,24}

Given the discussions presented, it is evident that patient safety practices include care actions, focused on clinical practice, and management actions.

♦ Patient safety as a cultural process

The promotion of patient safety and the quality of care involve the top management of the institutions and their collaborators, however, patient safety is still not seen as co-responsibility of the entire multi-professional team.¹⁵ Therefore, safety in organizations should be instituted as a cultural process, promoting effective communication and greater awareness of professionals with ethical commitment.^{12,14}

In this sense, promoting the communication and implementation of training programs are considered important actions.^{18,22,25} Qualification activities improve team

performance and promote peace and security for the work, requiring commitment, commitment and planning, which encompasses structure, processes and results,²⁶ with human resources being the essential element for practices and scope of differentiated results.

The implementation of an educational process, with a multi-sectoral approach, with evidence-based practices, patient-centered teaching strategies, actively involving patients, professionals, health organizations, hospitals, health insurers, employers and other stakeholders can provide a necessary climate to create and sustain a culture of security.²⁵

In the United Kingdom, the National Patient Safety Agency emphasizes the need for health care the institutions promoted a shared set of beliefs, attitudes and norms in relation to what is viewed as safe clinical practice. There is an implicit assumption that this shared set of beliefs will reduce the chance of the individual applying their own judgments about what constitutes safe clinical practice based on standardized procedures, which promotes a culture of safety. However, relationships of trust, with shared norms, are more positive than the imposition of rules and regulations.²⁰

While creating a safety culture determines a shared set of beliefs, attitudes, and norms, nurses advocate standardization, but physicians, do not. And because of this, they are considered as offenders. Doctors have not necessarily considered the guidelines legitimate, or have not identified them as rules, inferring that unwritten rules govern the physician's clinical behavior more.²⁰ In this sense, it can be inferred that this incongruity of thought among the multi-professional team results in different actions, attitudes and thoughts, and there is a need to promote an articulation between those involved in favor of practices that generate greater patient safety.

In this sense, a study pointed out that the follow-up of specific protocols, associated with security barriers in systems, and, especially in permanent education, can prevent and reduce risks and damages in health services.¹² The implementation of quality and accreditation programs stimulate good practices, favoring cultural change in the work activities of professionals.²⁶

Faced with the analysis of the studies, it is verified that the institution, that wants to obtain good results and with quality, should favor the culture of patient safety among its professionals, which means considering

beliefs, customs and values that will influence professional conduct.

CONCLUSÃO

The data analyzed showed that the management and assistance actions are based on medication administration, safe surgery, bed fall and, mainly, on the identification of risks and adverse events, using current guidelines, standardizations, based on the result of indicators. The actions are still in the scope of projects, with few studies that portray improvements developed in reaching the international goals of patient safety. And, moreover, more care actions and few management were identified.

It is realized that education, with a multi-professional and inter-sectoral approach, and improvements in communication, as crucial in reaching a culture of patient safety. When considering the international safety targets, no studies were found addressing patient identification.

The research had as a limitation to cover only complete articles indexed and available for access.

It is concluded that simple solutions, such as knowing the risks, carrying out permanent education and improving communication, can reduce the possibility of errors in the healthcare environment and increase patient and professional safety. In this theme, there is still much to be studied, and other studies related to patient safety and to the strategies used, and may help nurses develop appropriate actions to prevent errors and implant safety culture in hospitals.

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