

Adverse Events in Hospital Care and Nursing

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Abstract

The proposed reflection intends to raise awareness among nursing professionals about the safe attitudes in care delivery as well as to know and discuss the occurrence of adverse events in hospital care in the different areas and the most frequent types of errors that occur in the provision of this care. The text has a theoretical-reflective approach, built from the critical reading of articles, in order to evaluate and summarize the information found. The safety culture that requires change of posture and behavior in patient care needs to be implemented with greater solidity, monitored and required in all phases of care. It is considered important to review the conduct in the event of errors and adverse events. Thus, investment in continuing education, the dialogue between medical and other caregivers, should be a constant in hospital care.

Keywords: *Adverse Events; Nursing; Patient Safety; Hospital Care*

Introduction

This theoretical-reflective text intends to address the issue of the occurrence of adverse events related to hospital care, as it understands the importance of the theme so that health professionals and nurses understand that their care actions, whether direct or indirect, influence to the welfare and security of care and that the results resulting from them may or may not harm the people under their care, if carried out in disagreement with the protocols that guarantee the minimum of security.

In the search for quality of health care, ensuring patient safety is a commitment of institutions and professionals. Thus, the reduction of risks inherent to the provision of assistance is directly related to changes in the culture and work processes adopted by health services, since the assistance produced and consumed is the result of a complex system of relationships, which makes it liable to the occurrence of errors and/or adverse events in the care process (Nascimento, Travassos, 2010).

Adverse events are defined as incidents that result in damage to health. In turn, errors consist of failures to execute a planned action. Although they are inserted in a common context, the terms differ due to the fact that adverse events refer to the result of care, which can occur as a result of errors in the health care delivery process [1-3].

Both errors and adverse events can imply an increase in hospital stay, care costs and often, legal charges. By understanding the relationship between the occurrence of adverse events and the results of care, the World Alliance for Patient Safety was created, in order to establish global goals and protocols of care aimed at safety [2-4].

In view of the aforementioned understanding of the relationship between the quality and safety of care, the behavior of professionals and the support of the institution, the movement began to promote the organizational culture aimed at developing safe care. In this perspective, the analysis of the safety culture can help to understand the functioning of the institution and goes beyond a quality program, as it involves elements related to people's attitudes and behaviors [1,5].

The proposed reflection aims to raise awareness among nursing professionals about safe attitudes in providing care, as well as to know and discuss the occurrence of adverse events in hospital care in different areas, and the most frequent types of errors that occur in the provision of this care.

It should be noted that research needs to align with practice and respond as far as possible to concerns and doubts, helping professionals to develop good health practices. Studies on adverse events in the hospital area have emerged strongly in recent decades due to concern with the quality of care provided to the population. The recommended assistance aims to meet the health needs of people who seek hospital services.

Another point to be discussed are the errors arising from health care, mainly related to nursing that provides care 24 hours a day in an uninterrupted manner which leads to a reflection on good health practices, patient safety and quality of care in nursing. On the other hand, it is important to know about hospital dynamics and how it may or may not greatly influence the work process of nursing professionals to the point that they do not recognize the seriousness about the discussion on care security, given the routine strenuous, sometimes alienated and devoid of critical thought and judgment regarding the impact of their actions.

Thus, this work aims to meet the needs of people who seek health, when it instigates a rethink about how nursing care is being carried out within hospital institutions, encouraging a change in professional behavior in the face of adverse events and errors arising from hospital care.

Material and Method

This study has a theoretical-reflective approach, built from the critical reading of articles, in order to evaluate and summarize the information found [6]. A theoretical-reflective construction approaches the qualitative approach, in view of the interpretation and analysis of the theoretical elements obtained through the bibliographic survey to be carried out [7]. The preparation of this article has assumptions of the literature review, whose process consists of a way of systematizing information about specific issues in a body of knowledge.

The methodological path included, first, the bibliographic survey, through which an exploratory search of documents in electronic format of the last five years, present in the Virtual Health Library (VHL) on the BIREME website, from November to December, was carried out 2018. Other sources of information were also used, such as books, manuals, in addition to official documents from the Ministry of Health. The keywords used to capture the manuscripts were: adverse events, hospital care, patient safety, work in nursing.

The establishment of nursing research priorities (PPE) becomes necessary and implies focusing the research on what is essential to give visibility to the knowledge specific to the profession, that is, in nursing care as a theoretical category, in care subjects, in professional competences and also in the great transversal national problems, in order to define the disciplinary field and the interdisciplinary facet of this field of knowledge.

Occurrence of adverse events in hospital care and nursing

In health institutions, the procedures performed involve certain risks that are aggravated in the presence of failures in the structure and processes of care, making care unsafe and, as a result, low quality of patient care and the occurrence of incidents are evident. Among the types of incidents, adverse events (AE) stand out for, necessarily, causing harm to the patient, resulting in a significant impact on the health system, including patients, professionals and institutions [8].

An adverse event is understood as an unintentional injury or damage, a consequence of the care provided, which results in temporary or permanent disability or dysfunction, in prolongation of the hospital stay or death. What characterizes AE is the fact that the damage or injury was caused by the care provided and not by the evolution of the underlying disease [9].

The safety culture can then be defined as individual and organizational behavior, which continually seeks to establish a commitment to the continuous search for minimizing the risks related to assistance and consequently, helping to achieve the quality of the services provided. This desirable asset must be shared by all actors present in health organizations from the most diverse services, from primary care to high hospital complexity [1,10].

In the United States of America approximately 7,000 Americans die each year from medication errors. About one hundred thousand Americans lose their lives in hospitals each year, victims of Adverse Drug Reactions (RAM). Adverse events related to medications can lead to important health problems for patients, with relevant economic and social repercussions. Among them, medication errors are common occurrences and can assume clinically significant dimensions and impose relevant costs on the health system. It can be said that prescription errors are the most serious among those that occur when using medications [11-13].

In order to prevent or reduce the harmful effects manifested by the patient and to improve public health actions, it is essential to have a pharmacovigilance system. As defined by the World Health Organization (WHO), Pharmacovigilance is the science related to the identification, evaluation, understanding and prevention of adverse effects or any problems related to drugs [9].

The significant increase in the frequency of adverse events has provoked discussions at an international level, as they lead to a marked increase in morbidity and mortality, prolong the hospitalization time and increase treatment costs [14].

In the articles studied, the large amount of medication errors and adverse reactions is quite evident, as demonstrated by Beccaria, *et al.* [15] in their study that identified more than 550 adverse events. Other studies have identified 230 medication errors, 183 adverse events in newborns in an intensive care unit. In a survey conducted in a public hospital in Salvador (BA), 316 cases of ADR were identified, 28.8% of which occurred in young patients and 31.1% in the elderly. The female gender and black race corresponded to 60% of the cases [14,16,17].

In this perspective, changes in the hospital structure, working conditions, communication and interaction between sectors and people, the computerization of the system, with the adequacy of the electronic prescription system, implantation of a unit dose, are strategies that really favored the safety of patients and contribute to reducing the incidence of these events.

In this sense, the National Patient Safety Program seeks, in addition to other axes such as the encouragement of a safe care practice, the involvement of citizens in their safety, the inclusion of this theme in teaching, whether through permanent education, in undergraduate and post-graduate courses. graduation and health and an increase in research on patient safety. In this last axis, focusing on: measuring the damage, understanding the causes, identifying solutions, assessing the impact and transposing the evidence into safe care [2,3].

On the other hand, most international studies have focused on measuring damage and understanding the causes. Research production has been much higher in developed countries than in developing countries. Studies on adverse events have been concentrated in hospitals and few have been carried out in primary and home care [2,3].

The retrospective review studies of medical records of incidence/prevalence of adverse events in hospitals aim to draw the attention of managers, professionals and society in general to the issue of safety in health establishments and to identify critical areas, as well as guide the establishment on priorities. A study carried out in Brazil did not have a national scope, its results being limited to the hospitals that were evaluated, so there are no data on the national incidence of adverse events [2,3,18].

Thus, in order to achieve a safety scenario, it is necessary that services adopt the behavior of continuous learning, in which the notification of adverse events and the analysis of their causes are elements that trigger improvements in the care processes, in order to minimize the occurrence of preventable damage to patients [1].

In relation to nursing care, failures in medication administration, monitoring infusion pumps, incorrect handling of therapeutic and diagnostic materials and artifacts, as well as failures in nursing notes, stand out. In Brazil, research shows that, over a period of four years, 377 patients were victims of AS, with 22.3% of these having suffered two or more events, reinforcing the need to establish control and prevention protocols. In the Center-West region of Brazil, the first studies carried out in the State of Goiás showed the occurrence of AE, mainly linked to the medication process [17,19,20].

A study at a University Hospital in the central-west region of Brazil, verified the knowledge of nursing professionals about adverse events. The study showed that 45.94% of nurses have superficial knowledge about adverse events at the Institution, on the other hand, ignorance - or, still, wrong knowledge - was found in 20 (54.05%) of the reports. The professionals' limited knowledge about the AE shows the need for management policies and the development of strategic actions aimed at the continuing education of the multidisciplinary team, in order to promote improvements in quality and safety in the care process. In-service education allows an understanding of the AE, thus facilitating the investigation of the quality of care and also, an improvement in the service offered to the patient [8].

Regarding the communication of adverse events, the registration is considered a fundamental action in obtaining information about failures and allows the implementation of measures aimed at reducing the number of these occurrences. Notes in medical records or information records in health services have significant value, are sources of investigation, education and legal documents. They are considered the object of evaluation of the assistance provided to the patient and the quality of the notes prepared by the multidisciplinary team. However, it is important to encourage systematic notification through a standardized instrument and, preferably, to be electronic, in order to facilitate and streamline the process of communication and analysis of events that have occurred [21-23].

In Brazil the surveillance of Adverse Events related to the use of products that are under health surveillance, which includes the monitoring of the use of these products, has as fundamental objective the early detection of problems related to this use to trigger the relevant measures so that the risk interrupted or minimized. The definition by RDC n° 36, of July 25, 2013, of actions for notification and monitoring of adverse events related to both products and failures in the care processes, allows the expansion and articulation of the scope of notifications of adverse events in the parents. This reality denotes the need to organize this important work process within the scope of the SNVS and the care units that make up the Health Care Networks. In Brazil, the information system for capturing adverse events related to the care process was developed based on in the International Classification for Patient Safety, of the WHO Global Alliance for Patient Safety [1].

The system allows the option of notification by citizens (patients, relatives, companions and caregivers) and by the Patient Safety Centers, recently regulated by RDC n° 36. It must be considered that the language to be used must be adapted and friendly, order to promote the participation of different audiences. Citizen notification is voluntary, data on notifiers are confidential, obeying legal provisions, and their custody is the responsibility of the National Health Surveillance System (SNVS). It is necessary to emphasize that the identification of the notifier will not be disclosed to the Health service, so that confidentiality is guaranteed. Notifications will also be accessible to the Health unit involved in reporting for proper treatment [1].

When we refer to the types of adverse events, some authors mention of the total AE experienced that 23% were related to tubular devices, being a frequent event in the literature. Considering that intravenous therapy is one of the most performed procedures, the insertion, maintenance and improper removal of these devices predispose to the occurrence of AE, with infection and blood leakage being more frequent. The causes of AEs were 17 obstructions, 13 unscheduled withdrawals from the devices and five inadequate fixations [20].

The reduction in AE related to tubular devices is associated with guidance to the health team regarding the insertion and maintenance technique, care during patient transfers, in addition to guiding patients and family members on the importance of maintaining the device.

Hospital infection emerged in these studies, as 15.8% of Adverse Events (AE), 11% related to surgical site infection, four in the urinary tract after bladder catheterization, four blood infections by vascular access, two at the insertion site tubular devices, two pneumonias and a non-operative wound infection. Hospital infection, in addition to prolonging hospital stay, has serious consequences for the patient and high cost to the health system. Health institutions should develop patient care protocols, provide material resources and train the entire team to reduce the occurrence of nosocomial infection and obtain better health indicators [8,20,24].

13.1% AE related to pressure ulcers were recorded, which resulted in damage, prolonged hospitalization and required additional intervention to the initial treatment. Already, 11.2% refer to allergic processes, of which 12 were related to medications and five to the use of adhesive tape. Dipyrone was the drug with the most reported allergic process - six cases, followed by Vancomycin, with four. As a consequence of allergic processes, six required monitoring and 11 resulted in temporary damage with intervention. The notification of allergic reactions to medical-hospital products for the risk management service is of great relevance, since it is possible to manage the products through pharmacovigilance actions [12,25].

Surgical complications represent 11.2% of cases, 11 of which are pneumothorax, four are embolism/thromboembolism and one cardiorespiratory arrest. As for medication, Among the events cited, 64.2% were related to the right five in medication administration (patient, medication, dose, schedule and right records), which shows that this simple verification process is not being followed. As for the consequences, nine required monitoring and five resulted in temporary damage with intervention. In relation to medication errors, 35.7% are related to the dose, 14.3% are patient switching and suspension of medication due to lack, and the remaining 7.1% are related to the time of administration, omission, incorrect technique, wrong medication and inadequate checking [8].

In a survey carried out in the intensive care unit of a public hospital, more than 550 adverse events were identified, being: 26 related to the right five in medication administration, 23 to non-administered medications, 181 to inadequate medication notes, 28 to failures when installing drugs in an infusion pump, 17 when inhaling is not performed, 8 when handling syringes and needles, 53 when nursing procedures are not performed, 46 when handling therapeutic and diagnostic devices, 37 when alarms are used on equipment used for incorrectly and 131 to failures in nursing notes [15].

It is possible to classify the notifications in four groups: technical complaints of hospital medical material, technical complaints of medicines, adverse drug events and adverse events of blood products, the first being more frequent. Another study states that the most frequent types of occurrences were characterized by suspected quality deviation, allergic reactions to medications and hemorrhages. The professional categories involved were nurses, nursing technicians, pharmacists, doctors and professionals from other areas [24].

The World Health Organization recommends a classification as to the causality of the reaction as defined, probable, possible, unlikely, conditional and non-classifiable. It also proposes a classification in relation to severity as mild, moderate, severe and lethal [9].

Falls represent 5.9% of AE, among which seven required monitoring and two resulted in temporary damage with intervention. Its occurrence can cause injuries and harm their physical and emotional integrity in addition to the increase in hospital costs and even death. Several measures can be adopted to prevent falls from occurring, such as raising bed rails and applying movement restriction techniques. Bed restraint is an appropriate measure for agitated patients as long as it is performed correctly and does not cause any damage, and should be frequently evaluated and monitored by the team to determine whether the procedure will continue or not [8,26].

Some studies point to the need for greater empowerment by nurses regarding the correct reporting of adverse events. Many professionals when making mistakes that resulted in adverse events, or when experiencing these situations with the work team, prefer not to

report the case or even not to notify in pharmacovigilance centers. Situations like this make it difficult to improve service to the user and can have serious consequences and even lead to the death of patients. Some studies report that most reports of suspected AE were carried out through an active search, and not through spontaneous notification as recommended by ANVISA [17].

We need to reflect on some important data on how we are employing the National Patient Safety Program in our work units and how the Nursing Work Process and Organization is organized to face the challenges related to the practice of care, especially in care hospital, where most invasive procedures and acute and chronic events reside.

It must be taken into account that in many health institutions, the mistake made that turns into an adverse event with consequences, whether mild or serious, is mostly neglected due to hierarchical issues that still perform punitive and uneducative actions in area. Thus, it is perceived the lack or little use of health communication as an element that integrates health actions and more specifically those of nursing, as they are 24 hours uninterrupted performing direct and indirect care to the individual.

When we use the communication and management processes that nurses are capable and able to perform in order to prevent adverse events and correct and complete notification of them, we contribute to improving the quality of care provided, thereby avoiding the sum of others errors and their serious consequences. With that, when we commit to promoting people's health, we need to take into account that in the face of various changes in health systems and services, human error, small or large failures and the resulting events permeate the work process of the professionals, considering that no professional acts alone.

The promotion and recovery of the health of populations within hospital organizations takes place in a network, where a failure in one of the processes compromises all the expected result, requiring the entire multidisciplinary team to establish good communication, training, exchange of knowledge and relative information the people in their care, in order to avoid and/or minimize, detect, correctly report and intervene in the face of errors and adverse events in health care [27-30].

Final Considerations

It is considered that, when we list some studies on the occurrence of adverse events in hospital care, questions were raised so that health professionals and more specifically those of nursing as well as managers of hospital organizations reflect on their daily work. In relation to the practice, it is noted that there is a reduced amount of notification of errors and adverse events within the institutions, as it is understood that the professionals signal that the institution still adopts a punitive posture to the occurrences.

There is a need for greater support for professionals in relation to errors and adverse events on the part of their leaders, since the safety culture can be a reflection of service management. In addition, the support of the institution can mean a stimulus so that errors can be notified, analyzed and corrected, thus preventing their repetition. In view of the above, the safety culture that requires a change in posture and behavior in patient care, needs to be implemented more solidly and monitored and required in all phases of care.

It is considered important to review the conduct in view of the occurrence of errors and adverse events. These must be effective and serve as an example for other errors and events to be avoided, detected in time and resolved in order to minimize the consequences for patients. The investment in permanent education, the dialogue between medical teams and others that provide care, must be a constant in hospital care, which in itself already encompasses a series of invasive procedures and exposes the patient and their families to the various risks arising from it. Therefore, seeking a non-alienated practice and the full applicability of the Patient Safety Program reveals, on the part of professionals, the concern with the well-being of people and their families, who seek health and relief from their suffering in hospital institutions.

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