Nursing care and the focus on patient safety in the Brazilian scenario

Assistência de enfermagem e o enfoque da segurança do paciente no cenário brasileiro

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ABSTRACT The objective of this study was to analyze the contribution of nursing to patient safety in Brazil. The research method applied the integrative literature review. Databases searched were BDENF, Lilacs, Medline, SciELO and PubMed, by means of the descriptors ‘patient safety’, ‘nursing care’ and ‘Brazil’. Articles assessed refer to the period 2009-2014, available in Portuguese, English and Spanish. At the end, fifteen articles were selected. The publications evince the existence of nursing positive actions on patient safety. Concluding, the research reflects on the importance of error identification and use of tools to improve the safety culture in Brazilian institutions.

KEYWORDS Patient safety. Nursing care. Brazil.


Introduction

Concerns regarding patient safety emerged in the 1990s with an important North-American publication from the Institute of Medicine (IOM) under the title ‘To err is human: building a safer health system’, in which the authors reported the death of 44,000 to 98,000 people in the United States resulting from incidents that were mostly preventable (TOFFOLETTO; RUIZ, 2013).

The World Health Organization (WHO) defines patient safety as the reduction of risks from unnecessary harms to an acceptable minimum, considered a constant component closely related to patient care (WHO, 2009a).

Despite the development in the health area, patient safety is influenced by iatrogenesis from professionals, which directly reflect on the clients’ quality of life provoking unpleasant consequences both for the professionals and the health organization (MIASSO ET AL., 2006).

Nursing professionals are responsible for most of the care actions and are therefore in a privileged position to reduce the possibility of incidents that affect patients, besides doing early-detection of complications and performing the necessary conducts to minimize harm (PEDREIRA, 2009).

In Brazil, the Ministry of Health (Ministério da Saúde – MS) has created in 2013 the National Program on Patient Safety (Programa Nacional de Segurança do Paciente – PNSP) with the objective of implementing care, educational and programmatic measures and initiatives directed to patient safety in various areas of care, organization and management of health services, by means of the implementation of risk management and Nucleus of Patient Safety in health institutions (BRASIL, 2014).

Considering that the professionals are responsible for the planning and appropriate intervention aiming to maintain a safe environment, it is vital to carry out nursing research on patient safety (RADUENZ ET AL., 2010). Therefore, the objective of this research was to analyze the contribution of nursing for patient safety in Brazil.

Methods

It is an integrative literature review that includes the analysis of relevant researches directed to supporting decision-making and improvement of clinical practice, enabling the synthesis of the state of knowledge on a given subject, besides highlighting knowledge gaps that must be overcome by means of new studies (MENDES; SILVEIRA; GALVÃO, 2008).

This type of review contains six stages: elaboration of the guiding question; literature search; data collection; critical analysis of selected studies; discussion of results; and presentation of integrative review (GANONG, 1987; SOUZA; SILVA; CARVALHO, 2010).

The guiding question of this study has been: what have scientific publications highlighted regarding nursing care on patient safety in Brazilian health institutions.

Literature search was carried out on the following databases: Latin American and Caribbean Center on Health Sciences Information (Lilacs), MEDical Literature Analysis and Retrieval System Online (Medline), Base de Dados de Enfermagem (BDENF) [Nursing Database], and Scientific Electronic Library Online (SciELO). The bases were accessed by means of the Virtual Health Library (VHL) and Virtual Public Library/Medline (PubMed) drawing on Health Science Descriptors (DeCS) and Medical Subject Headings (MeSH): patient safety, nursing care, and Brazil.

Inclusion criteria used were original articles from Brazil, indexed in the above mentioned databases, fully published in national and international journals in the period 2009-2014, and available in Portuguese, English and Spanish. Data collection was carried out in the first semester...
of 2015. After reading the material, data was grouped by category.

Results and discussion

Forty-six articles were found. Among these, twelve (26%) were repeated in the databases and 19 (41%) did not correspond to the theme. Fifteen articles remained for the analysis, of which four articles (27%) in Lilacs database, one (7%) in Medline, three (20%) in BDENF, two (13%) in SciELO, and five articles (33%) in PubMed.

Among the 15 articles analyzed, six were published in 2013; three in 2014 and in 2011; and one in 2009, 2010 and 2012. The majority of publications were retrieved from the Journal of School of Nursing – University of São Paulo and from the Revista Brasileira de Enfermagem [Brazilian Journal of Nursing].

It was verified that six articles (40%) were extracted from dissertations and thesis on nursing; four (27%) originated in postgraduate programs; three (20%) were developed by research groups; and two (13%) by nursing scholars.

Regarding the forces of evidence, according to the scale developed by Stetler (1998), it was observed that thirteen articles (86%) have level of evidence IV; one article (7%) has level of evidence V; and another (7%), level of evidence VI.

It was found that seven articles (47%) proposed the identification and notification of adverse events and incidents; three articles (20%) presented the design and implementation of care checklists and protocols; two articles (13%) portrayed hand hygiene as safety measure; two (13%) worked on nursing care focusing on medication dispensation and keeping and risk of patient fall; and one article (7%) addressed the importance of the implementation of the National Program on Patient Safety in Brazil.

From the data analysis, three categories were identified: nursing care in Brazilian health institutions; protocols and nursing care on patient safety; and patient safety and adverse events and incidents.

Nursing care in health institutions in Brazil

Since 1988, Brazil has been implementing a complex, dynamic health system – the Unified Health System (SUS) – based on the principle of health as a citizen’s right and a responsibility of the State. The Brazilian health system must ensure the continuity of care to the population in the primary level by means of basic health care; in the secondary level, through ambulatory care; and in the tertiary level, at a hospital (Paim et al., 2011).

The development level of a health organization may directly affect patient care (Pedreira, 2009). It must be added that the advances in health care researches have been contributing to the improvement of the care provided. But despite the advances in health care, people are still exposed to diverse risks when submitted to care, especially in hospital environments (Raduenz et al., 2010).

Administration and management of the service, personnel deficit, work overload, team relationship, communication failure, and low continuity of care delivered to patients have been factors that hinder care services in Brazilian health institutions (Capucho; Cassiani, 2013).

Problems related to failures in the physical structure of facilities and to the lack or insufficient amount of equipments and materials to meet the needs also appear as adversities in the work environment in health institutions (PaiVa; PaiVa; BertI, 2010).

Care environment and system affect nursing interventions. As a result, some hospitals have started to change the philosophy and the infrastructure in order to offer better work conditions and favor professional performance (Pedreira, 2009).

The Code of Ethics for Nursing Professionals (COFEN, 2015) states that it is
the nurse’s responsibility and obligation to deliver care to patient, family, and collectivity, free of harm resulting from malpractice, negligence or imprudence, and that nursing must ensure safe care and provide adequate information to patient and family about rights, risks, intercurrences and benefits regarding nursing care.

Nursing has a fundamental participation in the processes that aim to ensure and improve the quality of care provided in health units. But isolated measures of training and capacity-building in nursing are insufficient to ensure the absence of risks (GONÇALVES ET AL., 2012).

In this context, nursing has been implementing subsidies and strategies, such as the use of protocols and checklists, to carry out interventions that enable care that is free of harm to patients, safer and with quality (LUZIA; ALMEIDA; LUCENA, 2014).

Protocols and nursing care on patient safety

For the consolidation of safe care with quality, in 2013 the Ministry of Health instituted ordinances (BRASIL, 2013A; BRASIL, 2013B) with protocols that establish patient safety interventions in health services. Among them there are protocols for: fall prevention; patient identification; prescription safety, and use and administration of medicaments; safe surgery, hand hygiene practice and pressure ulcer. With the creation of care protocols, nursing has been directing the work and registering the care performed in the resolution or prevention of problems (HONÓRIO; CAETANO, 2009; SOUSA ET AL., 2013).

The study conducted by Schweitzer et al. (2011) proposed that nurses address in a new manner the care delivered. In this sense, it presented a protocol for nursing care on patients traumatized in an aerospace environment as a strategy for the improvement of safety and nursing assistance in pre-hospital care.

The research conducted by Honório and Caetano (2009) verifies that the use of protocols provides higher qualified practice and more effective and humanized care to patients.

Based on the protocols of the National Program of Patient Safety, the research carried out by Luzia, Almeida e Lucena (2014) enabled the assessment of patients and the identification of factors of fall risks. Thus, the nurse was able to establish the nursing diagnoses based on Nanda International (2013) and prevent the fall event by means of interventions proposed by Nursing Interventions Classifications (NIC) (BULECHÊK ET AL., 2013).

The research conducted in Southern Brazil by Raduenz et al. (2010) verified that the participation of health professionals in the identification of risks related to medication enabled the professionals to see their work environment from a different perspective, helping them to rethink their practice regarding medication.

Another study verified the importance of the use of checklists by surgery room team in a teaching hospital (PANCIERI ET AL., 2013). Safe surgery is among the Global Patient Safety Challenge and proposes simple care, such as patient identification, clinical information from patient and institution, availability and proper functioning of all materials and equipments that can make a difference between success and failure of a procedure. These simple checkings may hinder the start of a series of complications to the patient. At the same time, this challenge and protocol of the MS are able to prevent surgical site infection, ensure safe anesthesia, safe surgical teamwork and surgical care indicators (WHO, 2015; FERRAZ, 2009).

The nurse, as a leader in hospital units, has the responsibility to encourage everyone’s participation in checklist adoption in order to bring benefits to professionals and patients in the surgical center (PANCIERI ET AL., 2013).

Another concern is the practice of hand hygiene. Although researches demonstrate that hands are strongly related to the transmission of infectious microorganisms and
that hand hygiene procedures result in the reduction of infection rates, there are still many professionals who do not make proper use of the technique (Cruz et al., 2009).

A research carried out in a university hospital in Southern Brazil verified that 87.89% of hand hygiene were not made in accordance with the preconized technique and that when it was actually made, it occurred before preparing the medication (Silva et al., 2013). In another study, a greater adhesion to the practice (44.52%) occurred after the contact with the patient (Bathke et al., 2013).

Professionals have reported that various factors affect negatively hand hygiene, such as skin damage, lack of supplies, forgetfulness and non-acquaintance with the technique, skepticism and lack of example from colleagues and leaders, among others (Cruz et al., 2009).

In face of the difficulties and impossibilities found, strategies are sought to transform this reality and increase patient safety rates, such as offering adequate conditions to workers who provide daily care to patients; stimulate greater use of alcohol gel by workers as efficient hand hygiene, and promote training and capacity-building to professionals so they can perform hand hygiene technique in the correct manner (Silva et al., 2013).

The practice of measures related to patient safety in health care reduces diseases and harm to patients, decreases the treatment or hospitalization period, improves or maintains patient functional status, and enhances patient well-being. In spite of limited resources, nurses, managers and other health professionals can use researches to explore potential improvements in their work environment, reducing pressure from the use of inefficient daily practices in problem solution (OMS, 2002; Raduenz et al., 2010).

**Patient safety and adverse events and incidents**

Several studies addressed adverse events (AEs) and incidents (I) that occur in nursing care. AEs are incidents that occur during the delivery of health care resulting on harm to the patient, which may be physical as well as social or psychological, including disease, injury, suffering, disability or death (WHO, 2009).

Patients’ clinical conditions have direct influence in AEs, especially in severe condition patients, due to their instability and need of interventions (Sousa et al., 2013). Patients in Intensive Care Units (ICUs) are the most vulnerable to these complications.

Studies conducted by Novaretti et al. (2014) and Gonçalves et al. (2012) corroborate this information. The first study identified that 98.75% of patients in ICUs in a University Hospital suffered AE without injury. The second study found that the average of AE in ICUs was 1.3 to 2.2 per patient-day.

A research conducted by Paiva, Paiva and Berti (2010) found that the majority of AEs occurred in the Medical and Surgical Clinic rather than in ICUs. The AEs elected in these sectors were failure in routine continuity (12.8%); AEs related to medication (11.3%); falls (10.7%); AEs related to catheters (9.7%) and to skin integrity (8.7%). It was observed that most adverse events and incidents happen in day time, coinciding with the moment when various actions are performed, such as consultations, procedures, care, exams, and medical and nursing visits.

Approximately 70% of AEs have no important consequences for the patient, resulting only in costs related to time and resources. However, other AEs may have important consequences regarding both unnecessary suffering and pain increase or disability, and extending the hospitalization period. These consequences may take patients to consider failures in the treatment as betrayal to the confidence placed in the team and in the institution (Vincent, 2009).

The occurrence of errors should be interpreted as failures or non-compliance due to the collapse of complex technical and
organizational systems related to health care and not as isolated results of professional actions (NOVARETTI ET AL., 2014). Organizations should structure the system in a safe manner, helping professionals not to err. All causes should be analyzed by the risk management service as to develop corrective interventions, aiming at the prevention and reduction of adverse events (SILVA, 2010).

With this concern, in 2001 the MS launched, by means of the National Sanitary Surveillance Agency (Anvisa), the Sentinel Hospitals Project, aiming to set a Sanitary Surveillance Reporting Network (Notivisa), an online web platform system to receive notification of adverse events and technical complaints related to products under sanitary surveillance, such as: medicaments, vaccines and immunoglobulin; clinical researches; medical-hospital supplies; use of blood and components; and thus ensure better products in the market and more safety and quality for patients and health professional (BRASIL, 2001).

The use of AE notification bulletins aims to promote the identification of adverse events and incidents; provide nursing with a practical means of communication regarding unexpected and undesirable facts; enable the examination of situations and the construction of a database on risks and problem situations; and enable the implementation of necessary or suitable changes in the care process. It also contributes to the planning of safer work processes, enabling the prevention of future adverse events (PAIVA; PAIVA; BERTI, 2010).

In their research, Ferreira et al. (2014) demonstrated the difficulty of health professionals in the identification or definition of AE/I. They observed that 17.24% of the respondents understand that adverse event and medicament error are equivalent, and 82.76% believe that there are differences between medicament error and adverse event. However, 31% cannot differentiate one from the other.

It became evident that many of the reasons that lead the professional not to report the incidents are due to feelings such as shame, self-punishment, and fear of criticism from others and litigation (VICTEN, 2009). However, in order that the report of incidents be actually efficient within an institution, a great effort is necessary to ensure professionals that the aim is to improve safety rather than accuse or punish. It is necessary to shift from a punishing culture to a culture of continuous monitoring of real and potential risks (LIMA; LEVENTHAL; FERNANDES, 2008).

Several researches addressed adverse events notification; one was carried out in the period from 2005 to 2010 in the hemodialysis department, where the professionals reported 517 adverse events that they had witnessed or been informed of (SOUZA ET AL., 2013). In a sentinel hospital, in the period from 2006 to 2008, 100 adverse events notifications were made (BEZERRA ET AL., 2009). In yet another study, 42 AEs (1.67%) were reported in the period from 2005 to 2009, highlighting the low prevalence of notifications (SOUZA ET AL., 2011). In other words, the observation is that the notification rate is low, which could be related to under-notification.

Considering the omission of errors and the resulting under-notification of adverse events, health care managers have been facing difficulties to expand the knowledge regarding patient safety, making it difficult to implement improvements and the prevention of incidents (BEZERRA ET AL., 2009).

In this context, nursing registers are considered essential to the health care process because they guarantee effective communication among the health team, providing legal support and safety as a consequence, with information that may lead to changes in the structure, processes and results of care (COREN-SP, 2009; MATSUDA ET AL., 2006).

To this moment, despite national and international efforts, most researches correspond to retrospective studies, based on medical records review, or on the retrieval
of data from electronic registers. The results found underestimate the real occurrence of AEs or incidents without injury, because not all complications suffered by patients are registered on the medical records (Novaretti et al., 2014).

Regarding the conducts adopted for AEs prevention it is to be highlighted that most were directed to the service, demonstrating concern about the improvement of work conditions and the promotion of safer environments (Sousa et al., 2013).

Final considerations

By means of the literature review it was verified that nursing care is fundamental for the improvement of patient safety in Brazilian institutions.

It was identified that health professionals have little knowledge about adverse events and how to notify them, that health professionals fear exposing errors due to the punishing policy of institutions, and that there is low adhesion concerning hand hygiene technique.

On the other hand, positive actions of nursing care on patient safety were highlighted in the publications, such as the implementation of protocols for care; notification bulletin of adverse events; use of safe surgery checklist; and use of nursing diagnoses in risk reduction.

Brazilian health institutions have been facing lack of health planning; hierarchized and punitive work processes; high professional turnover and low-quality human resources; problems with equipments and failures in physical structure. In contrast, the MS, the National Sanitary Surveillance Agency, and other ministerial departments have been implementing policies for the improvement of care, resulting in an increase on patient safety.

Research on patient safety in Brazil is increasing. This study has highlighted that most researches are related to adverse events in hospitalization unities, and are limited regarding basic care and ambulatory departments. It proposes that health teams make a reflection on the importance of error identification and the use of tools for the improvement of patient safety, and suggests that further studies reach all levels of health care in Brazil. ■
References


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