Risk management has been used by health organizations as an investigative, scientific and technical process to achieve service quality, as well as to guarantee patient and professional safety. This research aimed at identifying the perceptions of nurses regarding hospital risk management and analyse facilitators and barriers to the process. This was a qualitative descriptive and exploratory research. A total of 29 clinical and management nurses at two large private hospitals in south of Minas Gerais participated in the research. The semi structured interviews were recorded and their data submitted to content analysis that resulted in five categories: deficiency in the conceptualization of risk management; risk management qualifies care; need for culture change for the operationalization of risk management; risk management perceived as reporting; and influences of human resources on risk management processes. Results revealed that nurses consider risk management as an instrument to qualify patient safety. Another conclusion was that events were underreported due to lack of time to fill forms, work overload, fear of retaliation and punishment. Actions to raise staff’s awareness, permanent education programmes and management support were strategies to develop work processes.

**Keywords:** Risk Management; Patient Safety; Nursing Care; Hospital Care; Quality of Health Care.

**RESUMO**

O gerenciamento de risco vem sendo utilizado pelas organizações de saúde como um processo investigativo e técnico-científico para alcançar a qualidade da prestação de serviços e a segurança dos pacientes e dos profissionais de saúde. Este estudo objetivou compreender a percepção dos enfermeiros acerca do gerenciamento de risco hospitalar e analisar as dificuldades e facilidades encontradas. Trata-se de um estudo com abordagem qualitativa, de caráter exploratório, descritivo, com a participação de 29 enfermeiros assistenciais e gerenciais de dois hospitais de caráter privado e de grande porte localizado no interior de Minas Gerais. As entrevistas foram audiogravadas, utilizando-se roteiro semiestruturado. Os dados foram submetidos à técnica de análise de conteúdo, resultando em cinco categorias: deficiência na conceituação do gerenciamento de risco, gerenciamento de risco qualificando a assistência, necessidade de mudança de cultura para operacionalização do gerenciamento de risco, o gerenciamento de risco como notificação e os recursos humanos influenciando no gerenciamento de risco. Os resultados mostraram que os enfermeiros relacionam o gerenciamento de risco como ferramenta de qualidade e segurança na assistência ao paciente. Constatou-se que, mesmo havendo a comunicação dos eventos adversos, muitas vezes há subnotificação por falta de tempo no preenchimento dos formulários, sobrecarga de trabalho, medo da represália e punição mediante o erro. A sensibilização da equipe, os programas de educação permanente e o apoio direto são estratégias sugeridas para avançar nos processos de trabalho.

**Palavras-chave:** Gestão de Risco; Segurança do Paciente; Cuidados de Enfermagem; Assistência Hospitalar; Qualidade da Assistência à Saúde.

**RESUMEN**

La gestión de riesgos ha sido utilizada por las organizaciones de salud como un proceso investigativo y técnico-científico para lograr la calidad de la prestación de servicios y la seguridad de los pacientes y profesionales de la salud. Este estudio tuvo como objetivo comprender la percepción de los enfermeros sobre la gestión de riesgos del hospital y analizar las dificultades y facilidades encontradas. Se trata de un estudio cualitativo, exploratorio, descriptivo, con la participación de 29 enfermeros de atención y gestión de 2 grandes hospitales privados de Minas Gerais. Las entrevistas fueron audio grabadas siguiendo un guión semiestructurado. Los datos fueron sometidos a la técnica de análisis de contenido que resultó en cinco categorías: deficiencia en la conceptualización de la gestión de riesgos, gestión de riesgos calificando la atención, cambio cultural necesario para llevar a cabo la gestión de riesgos, gestión de riesgos percibida como notificación y recursos humanos que influyen en la gestión de riesgos. Los resultados han mostrado que los enfermeros relacionan la gestión de riesgos con una herramienta de la calidad y seguridad en la atención del paciente. Se ha observado que, incluso habiendo comunicación, muchas veces los eventos adversos no son informados debido a la falta...
INTRODUCTION

Quality in health services delivery has been widely discussed. Its aim is to ensure an efficient, error-free health care system within established quality standards.1

Excellence in healthcare depends on the implementation of risk management processes. Risk management is the systematic and continuous application of management policies, procedures, behaviours and actions in order to analyse, evaluate, control and monitor risks and adverse events which have an effect in patient health and safety and, consequently, in the institutional image.2

Actions aiming at patient safety were first implemented in the nineties after the publication of an American Institute of Medicine report presenting the results on the state of health care in that country.3

In Brazil, risk management actions were broadened in 2001 by the National Health Surveillance Agency (ANVISA) through a hospital-watchdog programme. Its goal was to develop strategies to reduce adverse events in clinical practice in that hospital network.4,5

Several strategies were carried out and in 2004 the World Alliance for Patient Safety proposed the Global Patient Safety Challenge, the Safe Surgery; and in 2014-2015, the Antimicrobial Resistance.1 Concern with the quality of healthcare, processes and technologies used in health services ceased to be a privilege and became an important issue and a priority on the agenda of several organizations such as the World Health Organization (WHO) in favour of patient safety.3

In developed countries, the percentage of hospital errors is between 5 and 15% of all hospital admissions. They are due mainly to system faults, lack of effective safety barriers and standardized processes, work overload and repetitive tasks.6

Risk management is considered the mainspring of suitable patient assistance programs and professional safety. Its implementation depends on the systematic execution of organizational management strategies, the integration of care processes, the use of better evidences, transparency, accountability, the creation of a safety culture, awareness, a responsive attitude to changes and prevention of damage.5,7

This issue needs broader researches, given the almost daily incorporation of new healthcare technologies and resources. Actions in this area have become more complex and open to risks, which may lead to errors, injuries or to the loss of personal, material, moral, patrimonial, and organizational prestige. This study’s objective was to investigate nurses’ perception of hospital risk management.

Based on that, the researchers set up the following goals: to identify nurses’ perception of risk management; and to analyse facilitators and barriers to the operationalization of risk management processes.

METHODOLOGY

This article presents a qualitative research that deals with the study of relationships amongst groups, their representations, beliefs, perceptions and opinions and individuals’ interpretations of themselves and how they feel and think.4

The study was carried out at two hospitals: a private and philanthropic institution with 159 beds (identified in the study as Hospital A); and a private hospital with 102 beds awarded a level 1 certification by the National Accreditation Organization (ONA) (identified in the study as Hospital B). Both were located in the city of Poços de Caldas in the south of the state of Minas Gerais. The researchers decided to study two different contexts: one hospital working according to Unified Health System (SUS) processes and the other according to private health insurance procedures. Authorization letters were sent to both health institutions.

Research population consisted of management and clinical nurses who met the following inclusion criteria: that they worked in one of the research hospitals for more than six months, that they were present at the time the research was being carried out, and that they agreed to participate by signing the term of free and informed consent.

Prior to data collection, participants were informed via e-mail by the hospital’s nurse manager about the study’s objectives, as well as data collection method. They provided the researchers with a list of names, sectors and working hours that were later used to contact the potential participants.

The sample consisted of 16 nurses from Hospital A and 13 from Hospital B, totalling 29 nurses. Data was collected in their workplace from March to April 2015, according to their availability.

The researchers conducted individual semi-structured interviews. There were no sample losses since all subjects agreed to participate. The interview consisted of two parts: socio-demographic and professional data; and clear and flexible questions about the participants’ perception of risk management in their workplace. The triggering questions were: describe your perceptions of nursing audit and what hinders and facilitates this activity. The interviews were held in a location chosen by...
the healthcare professionals, within the hospital premises and in a room that allowed for some degree of privacy. Data collection ended with data saturation, dependent on the researcher’s understanding about the internal logic of the group under study. \(^8\)

The participants’ interviews were taped and transcribed by the researchers, preserving the confidentiality of their opinions. The participants were identified by the letter N for nurses followed by letters A or B depending on the hospital where the interview was being conducted, and a number in ascending order of the interviews.

Data analysis used thematic content analysis according to Minayo’s theory, which allows replicating and validating inferences based on data of a particular context through specialized and scientific procedures. The researchers fulfilled the method’s stages of pre-analysis, exploration of material and treatment and interpretation of results. \(^8\) A pre-test was carried out in order to verify the relevance of the data collection instrument and found that no reworking was necessary.

The project was approved by the Ethics Committee of the Pontifical Catholic University of Minas Gerais, protocol No CAAE 38488214.4.0000.5137. The hospitals authorized data collection and all participants signed the term of informed consent.

RESULTS AND DISCUSSION

The participants from hospital A were in the following age groups: eight (47.05%) were aged between 20 and 30 years, seven (41.17%) between 31 to 40 years, and one (5.88%) between 41 to 50 years. The majority were female (16 = 100%). As for their specializations, five (29.41%) were experts in Intensive Care, four (23.52%) in Oncology, two (11.76%) in Hospital Management, two (11.76%) in Emergency Care, two (11.76%) in Cardiology, two (11.76%) in Neonatology and Obstetrics; there was one participant (5.88%) in each of the following specializations: Occupational Health Nursing, Nephrology, Family Health, Nursing Audit, Intensive Care, and Infection Control. Some nurses had more than one specialization. One participant had a master’s degree in Quality of Life and Sustainable Development and one had no specialization.

The total years of schooling was between one and five years and one (7.69%) between ten to fifteen years. In Hospital B, nine participants (69.23%) were female and four (30.76%) were male. As for the age group, four nurses (30.76%) were 20 to 30 years old, eight (61.53%) 31 to 40 years old, and one (7.69%) 41 to 50 years old. Regarding their post-graduate experience, five (38.45%) were specialists in high complexity and ICU, two (15.38%) in Emergency Care, two (15.38%) in Hospital Management; the following specializations had one participant (7.69 %) each: Surgical Nursing, Preoperative Nursing, Nephrology, Oncology, Palliative Care, and Hospital Infection Control. One of the participants is a post-graduate candidate. As in Hospital A, some nurses had more than one specialization.

Regarding years in nursing training, eight (61.53%) had graduated five years ago, four (30.76%) between five to ten years and one (7.69%) between ten to fifteen years.

Both institutions’ daily work schedules were three 12-hours shifts (36 hours) and 8-hours, weekly workload of 42 to 84-hours. Four nurses worked in Hospital A and in Hospital B, concomitantly.

After exploration of the interviews content, the researchers identified three categories common to both hospitals: inadequate conceptualization of risk management; risk management qualifying care; and need for culture change in order to implement risk management. In Hospital A, two categories were found: risk management perceived as reporting; and influences of human resources on risk management.

INADEQUATE CONCEPTUALIZATION OF RISK MANAGEMENT

The study subjects could not draw up an accurate concept of risk management. They tended to consider the process as a tool for improving work quality, a means to ensure patient safety and to stop common errors without harming patients and staff. The participants named risks associated with nursing care: phlebitis, falls, loss of devices, pressure ulcers, medication errors, allergy and bronchial aspiration. The following statements exemplify the above:

“Risk management means that we […] keep track […] of care processes […] the service we deliver to patients, so they won’t be at any kind of risk. In this hospital, we control risks of falling down, phlebitis, ulcers […]” (NA3).

“I see risk management a quality control tool here […] able to manage […] a number of risks in all units, in order to improve quality and patient care […]” (NB12).

The above statements do not correspond to the concepts of risk management found in the literature which define it as a systemic and continuous application of policies, procedures, behaviours and resources to assess and control risks and adverse events that affect security, human health, professional integrity, environment and institutional image. \(^9,10\) Conceptual and practice clarity are needed to distinguish between quality management and risk management. Knowledge plays a key role in nursing care, because even though the nurses are unable to clearly define the concept, they know that “managing risk … so the patient is safe” is vital and should be at the core of their work performance. Therefore, training and adoption of prevention measures are neces-
sary in order to identify potential risk factors and weaknesses in processes that contribute to the occurrence of incidents.9

Since the registered nurses were team leaders, they were the players responsible for coordinating and managing patient direct care and organizational management and, at the same time, for ensuring credibility to quality and risk management programmes and staff commitment. A service quality programme aims at the resolution of non-conformities and the pursuit of excellence, whereas a safety programme focuses on risk prevention and mitigation of damage.9 Both processes aim at saving lives.

NA6 evidence demonstrates the perception of risk management as patient and professional safety.

“I think our actions deliver a safe care; not only to patients, but also to employees, so we can stop errors from happening” (NA6).

A study carried out with nurses of the largest public hospital in Fortaleza revealed that they could identify the main risks to which their patients were exposed (physical, chemical, clinical and institutional) and that dealing with them should be their objective. This shared attitude of identifying risks may be the first step towards the establishment of a safety culture.11

Knowledge and risk management best practices could allow nurses to optimize care processes and motivate their team in order to prevent damages to patient, employees, the environment and the organization.

The participants’ discourses expressed their concerns regarding the risk to which patients are subject during care processes. However, the majority of respondents were unaware of the different types of risks. The risks to which professionals are exposed are: professional, environmental, institutional, financial, social, all of them closely related to the work process and the nurses’ liability.9

The researchers observed that no participant understood the importance of systematizing actions for risk management.

This category revealed changes in professional practice that helped to deliver quality service as well as adaptations and improvements needed for the correct implementation of risk management processes.

“[…] it got better! The service improved […]” (on implementation of risk management) (NA1).

“[…] the positive side was that nowadays we can manage our performance and monitor the quality of the service we deliver to patients” (NB11).

The adoption of good practices and protocols favours the effectiveness of care and the systematization of health care processes. The researchers observed that nursing staff at Hospital B used healthcare indicators, standardized protocols and systematized procedures, important management tools for evaluating quality of nursing care. Healthcare risks were identified as soon as the patient was admitted: risk of falling, phlebitis, pressure ulcers and allergy were represented by coloured stickers attached to the patient’s record and placed by their headboard.

“[…] to identify … the patient risks falling off the bed, we have this notebook and this gets written in there” (NB2).

“[…] I see the facilitators only because we always identify risks of allergy, of falls, healthcare risks […] it is easier for us […] to deliver a safe care to the patient” (NB9).

Another study confirms NB2 observations: patient’s records are important for the communication and tracking of adverse events, making it possible to understand the causes and devise strategies to prevent them.13 It allows for preventive and efficient actions and it reduces the occurrence of faults through protocols and procedures that ensure patient safety at all stages of the care process.

The indicators cited were created by nurse managers of several hospitals and published by the Support Centre for Hospital Management (NAGEH).14

Risk management is an ally of health organizations because it provides management support to take the necessary steps to provide a safe environment for users and professionals and improve care delivery.12

RISK MANAGEMENT
QUALIFYING CARE

Risk management is one of the key strategies for the early identification of dangerous situations; it provides the back-up and information needed for decision-making, through an assertive attitude aiming at safe service performance.12

In this respect, the nurse manager is a facilitator and motivator of actions aimed at results and at the participation of all those involved, so they are able to act safely, skilfully and competently. The implementation of management policies, availability of structural resources, action plans and effective communication are needed in order to meet specific needs and fulfil certain expectations.
the commitment, style and proficiency in the administration of a safe and healthy organization.\textsuperscript{15}

In this category, the researchers observed that nurses considered the organizational culture as a barrier given the institutions’ slow responses to improvement proposals. Their statements betrayed the nurses’ concealment of errors, whose record can be used against them, and their fear of punishment. Structured and punitive-free organizations guarantee the success of safe patient care.

"[...] it is the actual situation; it is in the organization culture we find this difficult, but we do not give up, we try every day to improve it, change it, right? [...]" (NA2).

Educational activities dedicated to the prevention and control of errors need to be liberating and participatory. Professionals should not only follow norms and protocols but should also be free to communicate and the management strategies proposed should encourage active participation. Only then the professionals’ attitude may undergo changes.\textsuperscript{16}

"[...] People still have this culture that if professionals speak, if they report, they will be punished. So, we start the process; when we begin it, we sometimes notice a drop, right? [...]" (NA12).

Contrary to the new culture to be adopted in healthcare institutions, NA12 still sees risk management as a punishment.

A study carried out in two large hospitals in the states of Minas Gerais and Rio de Janeiro, demonstrated that patient safety culture in the Brazilian context was punitive regarding clinical errors.\textsuperscript{12} Acquiring a safety culture requires the development of new values, beliefs and principles that will make up the institution’s vision and policies on how to act in such situations.

Risk management should be part of management philosophy and, therefore, the establishment of an effective administrative policy is necessary in order to shape competent leaders and encourage new aptitudes, quality management for organization excellence, aiming at risk prevention and patient safety.\textsuperscript{9}

NB6 and NB12 responses confirm that the institution philosophy needed changes and suggest raising awareness as a pathway.

"[...] the implementation is a bit more troublesome because of acceptance, isn’t it? Because some professionals have old ways of thinking [...]" (NB6).

"[...] look, what makes it difficult in fact I think is people’s lack of awareness; their inability to understand what risk management is, because sometimes they do not report, [...]. Then am I going to tell on the staff, tell on my friend? I am going to talk about other’s mistakes and this is not it. So I think we have to inculcate in them that the process does not mean to point out other’s error in a report [...]" (EB12).

In Brazil, proposals related to patient safety were published in Brazilian Health Department Ordinance no 529 from April 2013 that details implementation strategies, effective management participation and patient involvement for the prevention of accidents.\textsuperscript{17}

Healthcare organizations need to overcome the traditional blame and punishment culture, encouraging the reporting of errors in order to learn from one’s mistakes. Quality work processes depend on service evaluation; and risk prevention depends on the team’s awareness of the importance of detecting possible hazards.\textsuperscript{12,18}

**RISK MANAGEMENT PERCEIVED AS REPORTING**

Nursing report is an important prevention tool. It is directly related to risk management since identifying and investigating clinical errors will inform new training sessions so as they will not recur.\textsuperscript{13}

Incident reporting systems focus on patient safety and have been widely used. Their objective is the identification and consistent analysis of adverse events, and the dissemination of information that will stand for educational activities, risk prevention actions for the mitigation of errors.

Data collection identified seven reporting units that demonstrate that risk management is a reporting instrument and not as an essential stage of that process.

Nursing reports record the occurrence of technical problems and/or adverse events related to products or medications.\textsuperscript{19}

"[...] the reports [...] we strive for improvement, right? So, for example, the loss of a nasoenteric probe, we do risk management, a medication or an antibiotic that is not administered to the patient, so we report that [...]" (NA4).

"[...] all that is reported, improves, things that you see but don’t report … If nothing is done there is no way things are going to improve [...] So, the whole process has to be classified, it has to be notified, so as to improve it [...]" (NB6).

NA4 and NA6 statements demonstrate they believe unquestionably in the association they establish between reporting and care quality improvement.

A study carried out at a teaching hospital in the state of Sao Paulo found that professionals understood the reporting
of adverse events as an instrument that supports health care management, the identification of problems and alternative proposals to solve care-related issues.20

Nursing reports are a standard working tool that follows the institution’s own protocols regarding what and how to report. The participants informed that after notification, the forms were sent to the risk management committee and then a continuing education process was triggered in order to gather new knowledge and skills.

“[…] Every time we notify an event, we do continuing education, so the level of training raises and we can expect more from the technicians […].” (NAS).

Incident reports should be used not only as a means of information, but as a means of ensuring that health professionals, especially nursing staff, have a practical communication resource to notify unexpected and unwanted events, enabling them to explore them as a training tool, to build a database and to implement necessary changes in care processes.15

INFLUENCE OF HUMAN RESOURCES ON RISK MANAGEMENT PROCESSES

The perception of the participants from Hospital A on risk management was strongly related to the inappropriate dimensioning of nursing staff numbers and a high employee turnover rate. Such factors interfere with the process’s operationalization. NA6 talked about it openly:

“[…] it’s difficult to fulfil this role, because we function with few nurses: the hospital has 42 patients and one nurse. It’s hard for him to stop what he is doing to fill a form, to write down a report, sometimes these are overlooked […]” (NA6).

The quantitative issue of nurse staffing interferes directly in the safety of procedures, in patient care quality, the continuity of surveillance of the nursing team.21

The findings of this study are consistent with a survey carried out in Brazilian hospitals in which professionals directly or indirectly responsible for patient care complained of daily work overload and insufficient human resources.15

Insufficient staffing contributed to frequent underreporting of adverse events in the institution. This context undermines the analysis of risks and adverse events and the implementation of improvements, and compromises as well the effectiveness of safe nursing care and management.

The study participants mentioned also the high employee turnover rate in a short period of time.

“People… start doing reports; then there are changes in the team, from one year to the next. Our team changed a lot, right? Thus, the turnover of technicians has been high in the hospital. So this … hinders the service” (NA12).

Employee turnover is the volume of people getting in and out of an institution or amongst the institution’s units.22

According to literature a high turnover amongst nursing staff is due to low wages or to working conditions with a high level of stress.21 The causes of a high staff turnover is not an object of the present study, but according to NA12 it is one of the hindrances to the full operationalization of risk management processes. The researchers acknowledge its negative effects on the quality of nursing care. It is up to the managers to diagnose the causes of that phenomenon and think of ways to overcome it.

These study findings were limited to the perception of nurses on risk management in the participants’ respective hospitals. It had an impact on the hospitals and it enabled strategic decision making. The authors suggest, therefore, the broadening of the discussion with studies carried out in other Brazilian regions.

CONCLUSION

The present study enabled the researchers to identify the nurses’ perception of risk management processes in two hospitals in the state of Minas Gerais. The process was inadequately conceptualized as the nurses mixed it up with the notions of quality and safety. However, they were aware that managing risks means patient safety, that it functions as a prevention of adverse events and that it is a strategic tool that brings benefits to care and service delivery.

Risk management has been used as an analytical, preventive and regulatory process to improve performance in health organizations and support managers’ decision making, and the monitoring of nursing indicators. However, risk management culture is considered as critical given the slow pace of structural improvements and the paradigm of punishment, error and underreporting.

The participants’ statements revealed that adverse events were often underreported because of the lack of time to fill in the forms, work overload and the fear of retaliation.

Risk management processes were interfered with by high employee turnover and inadequate and poorly dimensioned human resources, incompatible with the complexity of care. These are potential risk factors for the occurrence of incidents and preventable deaths.

It is necessary to reflect on the impact of the adverse event on the health professional, to rethink the underuse of talents in hospitals, to analyse the cost of deaths generated by the lack of an effective risk management process, by communication failures and, above all, slow responses.
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