






ORIGINAL ARTICLE

PERCEPTIONS OF PROFESSIONALS WORKING IN A UNIVERSITY HOSPITAL ABOUT THE PATIENT SAFETY CULTURE

HIGHLIGHTS

1. An organizational culture is essential for patient safety.
2. The professionals are propagators of the patient safety culture.
3. There are biases in understanding patient safety culture.
4. Management is fundamental to a patient safety culture.

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ABSTRACT

Objective: to understand the perception of professionals working in a university hospital about the patient safety culture. **Method:** a descriptive study with a qualitative approach, carried out at a university hospital in the Brazilian Northeast region in January 2023. The participants were 56 professionals from the multidisciplinary, namely: nurses, pharmacists, physiotherapists, speech therapists, physicians, psychologists and nursing technicians. The data were obtained through semi-structured interviews. The text content was subjected to lexicographic analysis and against the current and relevant literature. **Results:** five classes were analyzed: Perceptions about patient safety and the safety culture; Actions to strengthen patient safety; Perceptions about the work of the Patient Safety Center; Contributions to strengthening the safety culture; and Professional performance in patient safety. **Final considerations:** the patient safety culture in the hospital has been on a promising path. The study can direct interventions that strengthen the patient safety culture.

DESCRIPTORS: Organizational Culture; Total Quality Management; Hospital; Health Professionals; Patient Safety.

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INTRODUCTION

Patient safety is considered to be an articulating element of the different dimensions of the quality of health services, or the basis upon which the other dimensions are built. Therefore, its improvement is one of the strategic lines of action in the health field¹. It can be understood as a set of frameworks of organized activities that create cultures, processes, procedures, behaviors, technologies and environments in the health area, with the aim of consistently and sustainably reducing risks and the occurrence of avoidable harms, making errors less likely and reducing the impact of such harms when they do occur².

In the national context, the National Patient Safety Program (*Programa Nacional de Segurança do Paciente*, PNSP) was instituted through Ministry of Health Ordinance No. 529 dated April 1st, 2013, with the general objective of contributing to qualifying care in all health institutions in the national territory. Among the strategies to implement the PNSP is the promotion of a patient safety culture with an emphasis on organizational learning and improvements³.

In this sense, it is worth mentioning Collegiate Board Resolution (*Resolução da Diretoria Colegiada*, RDC) No. 36, instituted by the National Health Surveillance Agency (*Agência Nacional de Vigilância Sanitária*, ANVISA), which proposed creating the Patient Safety Center (*Núcleo de Segurança do Paciente*, NSP) in health services. The important role of the NSP in institutions to carry out actions under the Patient Safety Plan (PSP) stands out⁴.

Above all, the NSP aims at minimizing the occurrence of harms and Adverse Events (AEs) directed at patients in need of care, providing a better quality service and encouraging reporting of incidents⁵.

In the meantime, patient safety culture is the result of individual and group values, attitudes, perceptions, competencies and behavior patterns that determine an organization's commitment, style and capacity for health and safety management⁶.

It is noted that the development of a safety culture is fundamental to any sustainable effort to improve patient safety. Therefore, a safety culture has to be instilled in the attitudes, beliefs, values, techniques and practices of health workers, managers and leaders of health organizations. It is emphasized that a strong culture is essential to reduce harms to the patients and crucial to promote a safe working environment for health professionals².

In this scenario, harms to patients caused by unsafe care is a major and growing global public health challenge and one of the leading causes of death and disability worldwide. Most of these harms to patients are avoidable. Thus, the World Health Organization (WHO) 2021-2030 Global Action Plan for Patient Safety outlined seven strategic objectives, of which strategic objective two stands out: High-reliability systems².

Strategic objective two of this plan recommends developing and maintaining a culture of respect, openness and transparency that promotes learning, not blame and punishment, within each patient care organization². In this sense, elucidating professionals' understanding of the patient safety culture is essential for mapping out strategies to create a positive and strong culture in the institution.

From this perspective, improving the safety culture requires an effort from the entire health system, which involves broad actions aimed at improving processes, environmental safety and risk management⁷.

The important role of health management in regularly surveying the organization's safety culture, identifying gaps and introducing innovative approaches is highlighted². It is understood that the perception of the professionals working in the service is fundamental to promote a patient safety culture, as they are the main propagators.

Consequently, the study guiding question is as follows: Which is the perception of professionals working in a university hospital about the patient safety culture? Therefore, the objective is to understand the perception of professionals working in a university hospital about the patient safety culture.

METHOD

This is a descriptive study with a qualitative approach carried out with professionals working at a University Hospital in the Brazilian Northeast region. The sampling model was for convenience. The sampling process sought to represent the different professional categories in the morning and afternoon shifts. No data were collected from the night shift professionals due to unavailability of the research team. Thus, the participants were 56 professionals from the multidisciplinary team working in the hospital's various sectors.

The inclusion criterion was being a professional who has worked in the hospital for at least a year, given the need to have experience in order to answer the questions asked in the interviews. Professionals that were away from their jobs for any reason were excluded.

The data were collected in January 2023. Individual interviews were carried out following a data collection instrument. The answers were recorded with the participants' prior consent as a way of storing them for later analysis.

Data collection was conducted using an instrument developed for this research, which aimed at investigating the following issues: understanding of patient safety; understanding of the patient safety culture; actions that professionals adopt to help strengthen the safety culture; perception of the NSP performance in the hospital; and opinion on what can be improved to strengthen the safety culture in the hospital.

The questions in the instrument were designed to guide the interviews with the professionals from the multidisciplinary team, in order to elucidate their understanding of the patient safety culture at the research hospital and their perceptions in relation to the NSP. In this sense, it was guided by the WHO approach to establishing a patient safety culture in the development and provision of care involving health workers².

It is noted that the health institution that was the research *locus* has a quality management and health surveillance sector that carries out patient safety actions. The members of this sector are also part of the hospital's NSP.

The interviews took place in locations defined by each participant, so as not to disturb their spontaneity. Before initiating the interviews, the professionals were informed about the research and the ethical aspects, signing the Free and Informed Consent Form and filling in the Authorization Form for Voice and/or Image Recording (photographs and/or videos).

The text content from the interviews was transcribed and analyzed using the *Interface de R pour les Analyses Multidimensionnelles de textes et de Questionnaires* (IRAMUTEQ[®]) software. For this purpose, a spreadsheet of variables was prepared to build the text corpus.

IRAMUTEQ[®] is one of a number of free and open source software programs, characterized as a computerized method for analyzing data and texts, which aims at understanding the structure and organization of a given discourse. This software is developed in the *Python* language and its functionality is based on the structure of another software program: R⁸. It is also suitable for analyzing the qualitative data that makes up the majority of a given text.

Within this context, Descending Hierarchical Classification and similarity analysis were used as data processing methods. Each text (n=56) was characterized by the

“professional category” variable. The analysis of the *corpus* derived from the transcription of all 56 interviews revealed 8,874 occurrences of words, presented in 1,334 different forms. The *corpus* corresponds to the set of texts analyzed, in which each interview consolidated a text.

The software generates classes based on the similarity analysis of their terms, as well as the multivariate analysis with the variables of interest under study. Each class is contextualized through the researcher’s own analysis, by retrieving the texts in which the typical words were used. Data interpretation and analysis were based on current and relevant literature on the theme.

The study was approved by the institution’s Research Ethics Committee (*Comitê de Ética e Pesquisa, CEP*) under opinion No. 5,724,266.

RESULTS

The perceptions of 56 professionals from the multidisciplinary team working in a University Hospital about the patient safety culture were analyzed (Table 1).

In this research, a total of 246 text segments were analyzed using Descending Hierarchical Classification, retaining 77.64% of the total texts for class elucidation. Figure 1 shows the dendrogram denoting the five classes resulting from the content partitions.

Table 1 – Distribution of the participants according to professional category. Natal, RN, Brazil, 2023

Professional category	n	%
Nursing Technicians	20	35.71
Nurses	19	33.92
Physiotherapists	6	10.71
Psychologists	4	7.14
Pharmacists	3	5.35
Speech-Language Pathologists	2	3.57
Physicians	2	3.57
Total	56	100.00

Source: The authors (2023).

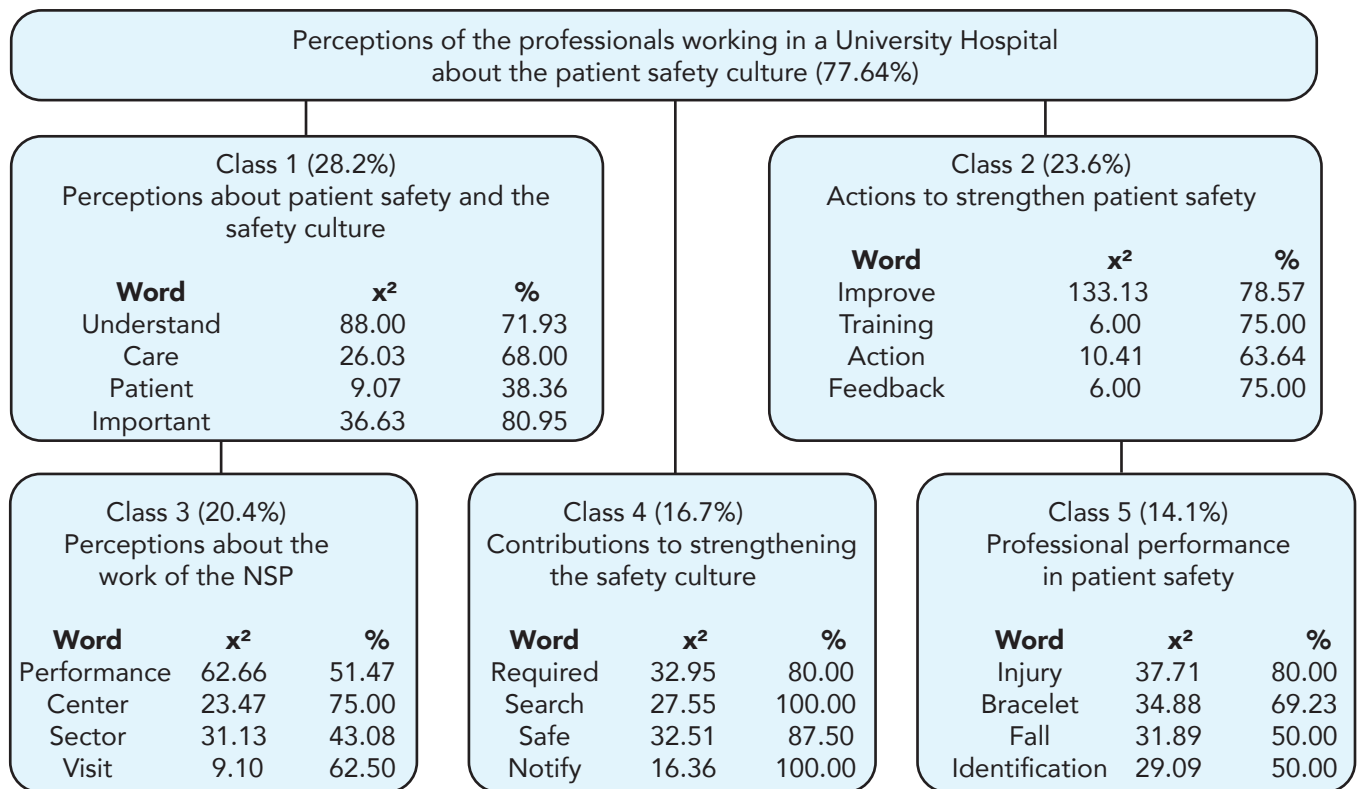


Figure 1 - Dendrogram showing the Descending Hierarchical Classification corresponding to the perceptions of professionals working in a University Hospital about the patient safety culture. Natal, RN, Brazil, 2023

Source: The authors (2023).

Class 1 was called "Perceptions about patient safety and the safety culture" and accounted for 28.2% of the text segments analyzed in the *corpus*. The words "understand" and "important" denote the professionals' conception of patient safety and the safety culture, which they consider important and essential in the health service.

I see patient safety in the hospital as necessary and extremely important. I see the safety culture in the hospital as growing. I don't think it's perfect, but it has improved and I don't see it as a hospital problem, but as a global issue. (Pharmacist)

I understand patient safety in the hospital as very important to prevent falls, medical errors and nursing errors. I see the safety culture as very positive in the hospital. (Nursing Technician)

I understand patient safety in the hospital as fundamental for patients to feel certain that nothing, apart from the condition that brought them here, will interfere with their care process. I see safety culture as necessary, important and fundamental, not optional. (Psychologist)

The words "care" and "patient" denoted the professionals' understanding about the importance of patient safety for safe and high-quality care.

I understand patient safety in the hospital as precautions from preparation and analysis of a prescription to the moment the medication is administered. It encompasses all of this and other precautions. Each professional has their own particularities, and this is something important that must be done continuously and monitored on a daily basis. (Pharmacist)

I understand patient safety as an essential aspect in the hospital institution so that the patients are well cared for, have their health demands solved and run no risks in the health institution. (Psychologist)

The words included in Class 2 made it possible to contextualize “Actions to strengthen patient safety”, which accounted for 23.6% of the text data analyzed. The words “improve”, “training”, “action” and “feedback” from the class highlighted the actions that can be used to strengthen patient safety at the research hospital.

In my opinion, what can be improved to strengthen patient safety at the hospital is the continuation of permanent education actions with greater frequency and better scoring of indicators with the teams. (Physiotherapist)

In my opinion, what can be improved to strengthen patient safety in the hospital is including NSP members in the practice in the sectors. (Nurse)

In my opinion, what can be improved to strengthen patient safety in the hospital is for the NSP to be able to give feedback on indicators by sector, to carry out more training and to be closer to the sectors. (Nurse)

Class 3 was called “Perceptions about the work of the NSP” and accounted for 20.4% of the text segments analyzed in the corpus. The words “performance”, “center”, “sector” and “visit” refer to the perceptions of the professionals interviewed about the performance of the patient safety sector in the hospital.

My perception about the NSP performance at the hospital is that, among other places I've worked and despite some errors, the hospital's NSP is very good. However, I see that the sector is not so present in the routine of the other sectors. (Nurse)

My perception about the NSP performance at the hospital is that it has intensified a lot. I've seen certain concern on the part of the center to keep professionals updated, putting reports on television and making direct approaches to the sectors, as well as offering lectures. (Nursing Technician)

My perception about the NSP performance at the hospital is that it is very active. I usually see them in the ward making bed-to-bed visits and guiding patients. (Psychologist)

My perception about the NSP performance at the hospital is that the sector is very active and excels in quality. There is the EBSEH quality seal, with one of its requirements targeted at patient safety. (Physician)

In relation to Class 4, called “Contributions to strengthening the patient safety culture” and which accounted for 16.7% of the text segments analyzed in the corpus, the words “required”, “search”, “safe” and “notify” denoted perceptions that the research subjects demonstrated having actions that need to be improved to achieve a strong safety culture in the institution.

I contribute to the safety culture through updates and discussions with other colleagues, in order to try to get everyone to speak the same language. (Nurse)

There is still some resistance from some professionals and the recommendations are not always accepted. Improvements in the safety culture are required in the medical profession, as there is a culture of sovereignty that lacks sensitivity to the patient safety cause. (Pharmacist)

I understand that the hospital's safety culture needs to be encouraged on a daily basis within the teams. In addition to that, it is required to convince, show how much the safe care issue affects the professionals' safety. (Nurse)

In relation to the safety culture in the hospital, I understand that the professionals are not in the habit of reporting it. They're afraid, as they believe that they'll be punished. (Physiotherapist)

Finally, Class 5, called “Professional performance in patient safety” and which encompassed 14.1% of the text segments, highlighted the words “injury”, “bracelet”,

professionals (words linked to the word “patient”).

DISCUSSION

The perceptions of the professionals who took part in the research were consistent with the idea that a safety culture is a critical component for adhering to safe practices in health care and reducing unnecessary risks in health services⁹.

Furthermore, it is noted that some authors have questioned the reasons why health professionals assess the safety climate in institutions as negative. They believe that one of the reasons can be the fact that the studies are only focused on a single specific area of the hospital, addressing only one category of subjects¹⁰. This study can therefore help fill this gap, as it analyzed different professional categories and different sectors.

Through Class 1, the professionals showed certain understanding of patient safety as important and necessary in institutions. The professionals understand the issue beyond care, involving each patient’s path in the hospital, from admission to discharge.

From this perspective, Class 1 shows the professionals’ perceptions about the safety culture, which they consider to be growing in the institution. They consider that the need to improve the safety culture is a global problem. This suggests that the research hospital is taking the necessary steps to strengthen the safety culture.

There is a growing interest among individuals in the health sector in assessing the overall patient safety culture in hospitals¹¹. Along with this, it is recommended that health institutions regularly survey their safety culture, identify gaps and adopt innovative approaches to promote it as a strength in health environments².

Therefore, Class 2 lists actions to strengthen the patient safety in the hospital, using permanent education, training for professionals and, above all, for the NSP to be more involved in the sectors’ on-site activities.

Permanent education promotes important changes in health organizations. Thus, training and theoretical and practical qualifications are strategies for strengthening the patient safety culture. It is important to offer training options according to the needs of the team¹². The NSP is responsible for fostering activities that promote the dissemination of actions aimed at patient safety.

Related to this, Class 3 shows the perceptions about the performance of the NSP, so that the professionals consider that the sector is present in the activities. It was identified that most of the professionals believe that the sector’s performance has been growing in recent years. There was a certain amount of demand for a more intense physical presence of the NSP in the sectors, but there was also an assumption that the center lacked enough employees to cope with the demands.

Furthermore, it was observed that most of the research subjects recognize the role of the NSP in the hospital and its presence when requested. They also acknowledge that the sector carries out various actions for the institution’s health professionals, although some have classified these actions as insufficient for the demands.

According to RDC No. 36 of July 25th, 2013, the NSP is responsible for carrying out actions to promote patient safety. The main actions include the following: identifying and analyzing healthcare-related risks; implementing preventive and corrective measures to mitigate these risks; monitoring and analyzing adverse events; reporting and investigating harms to the patients; and promoting a safety culture through training and fostering open communication between health professionals⁴.

The professionals' contributions to strengthening the safety culture evidenced in Class 4 generally showed the importance of integrating the multiprofessional team so that the recommendations are accepted. In addition to that, it is necessary to encourage this culture, which will be reflected in the fight against underreporting by the professionals.

One of the research subjects' testimony refers to the punitive culture, a perception present in many institutions around the world in the professionals' opinion. A study carried out in Spain aimed at understanding nurses' perceptions about the patient safety culture, evidencing that professionals with more years of experience fear that errors will mark their records¹³.

In addition, a study carried out in Austria investigated the patient safety culture, and the factor rated lowest was "Non-punitive response to error". They also suggested that low scores in the "Communication" dimension evidenced a strong culture of guilt due to various determinants, including cultural hierarchy in health, which leads the professionals to be afraid to speak out¹⁴. This encourages a reduction of hierarchical structures, attitudes and behaviors throughout the organization, promoting the organizational culture².

With this in mind, the objective of the national assessment of the patient safety culture in Brazilian hospitals in 2021 was to carry out a self-assessment of the safety culture using the Hospital Safety Culture E-Questionnaire, a system developed and administered by the Federal University of Rio Grande do Norte (*Universidade Federal do Rio Grande do Norte*, UFRN).

The results showed that "Non-punitive response to errors" was a weak dimension⁹. This makes us reflect on the need for managers to implement strategies to strengthen the safety culture in hospitals, and this will only be possible by analyzing the potential for improvement from the professionals' perspective.

In turn, Class 5 denotes the actions that professionals identify as contributing to the patient safety culture.

Within this context, a survey applied to nurses and managers at a hospital in inland São Paulo identified that, from the professionals' perspective, the patient safety culture is still vague and focuses on the curative model¹⁵.

Thus, the results showed that the research subjects attribute their professional practices to the patient safety culture, with actions such as preventing pressure injuries, minimizing the risk of falls and observing patient identification bracelets. This reflects on the need to educate and train professionals in the patient safety culture, in order to promote awareness and understanding about the topic. Before promoting a positive and fair culture in the institution, the team needs to understand the concept.

It is noted that, in order to promote a patient safety culture, it is of utmost importance that hospital administrators and unit managers create a supportive environment where the teams feel comfortable expressing their concerns and suggestions¹⁶. From this perspective, leadership within the health sector is the key to developing patient safety as a culture⁷.

In short, health management plays an essential role in the culture of an organization, especially in mapping this culture and the strategies to promote it. It is therefore essential for managers to actively involve health professionals, who are important propagators of the safety culture.

The study limitations include the fact that it reflects the reality of the hospital researched, precluding generalizations. In addition to that, this is a subjective issue that was strongly influenced by the safety culture of the institution under study.

FINAL CONSIDERATIONS

The perceptions of the professionals taking part in the research were in line with the patient safety objectives. They proved to be patient safety promoters, understanding it as transversal, permeating all healthcare-related areas and processes. Likewise, they were keen to show that the patient safety culture at their educational institution has been on a promising and consistent path.

In conjunction with this, the professionals showed that they understood the safety culture as the path to be followed in order to promote patient safety. On the other hand, a possible understanding bias was identified in relation to the term "patient safety culture". It was inferred that the professionals associate their everyday activities with contributions to the patient safety culture in the institution.

In this way, it is pertinent to replicate the research in other health care environments and on all shifts, so that the results can be expanded and strategies can be devised to promote a strong patient safety culture in each research institution.

The study may contribute to health management, as it might enable the development of targeted training and education strategies. In addition to that, with the data from the study, the managers will be able to target and implement specific interventions to strengthen the safety culture and promote a change in the organizational culture that values patient safety.

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