Patient safety culture from the perspective of nursing technicians of an emergency sector*

Cultura de segurança do paciente na perspectiva de técnicos de enfermagem de um setor de emergência

Micheline da Fonseca Silva[1]
Manacés dos Santos Bezerril[1]
Flávia Tavares Barreto Chiavone[1]
Soraya Helena Medeiros de Morais[1]
Maria Eduarda Gonçalves da Costa[1]
Marianny Nayara Paiva Dantas[2]
Viviane Euzébia Pereira Santos[1]

[1]Universidade Federal do Rio Grande do Norte.
Natal, RN, Brazil.
[2]Hospital Universitário Onofre Lopes.
Natal, RN, Brazil.

Corresponding author:
Manacés dos Santos Bezerril
Avenida Senador Salgado Filho, 3000,
Lagoa Nova. CEP: 59064-741. Natal, RN, Brazil.
E-mail: manacesbezerril@hotmail.com

ABSTRACT

Objective: to characterize the culture of patient safety from the perspective of nursing technicians of an emergency sector. **Methods:** cross-sectional study, developed in the emergency sector of a state hospital with 175 nursing technicians, from a 12-dimensional instrument on safety culture. The analysis of the data made based on the percentages of positive, negative and neutral responses of each dimension. **Results:** the culture of patient safety was characterized positively from the dimension Expectations about its supervisor/head and actions promoting patient safety (56.6%); negatively in the sphere Adequacy of professionals (75.5%); and in a neutral way, in the scope of Organizational Learning - continuous improvement (61.1%). **Conclusion:** it was understood that nursing technicians characterize the culture of patient safety in the emergency sector as an important aspect of the work environment, but that it needs to be optimized.

Descriptors: Licensed Practical Nurses; Patient Safety; Emergencies; Organizational Culture; Safety Management.

RESUMO

Objetivo: caracterizar a cultura de segurança do paciente na perspectiva de técnicos de enfermagem de um setor de emergência. **Métodos:** estudo transversal, desenvolvido no setor de emergência de um hospital estadual com 175 técnicos de enfermagem, a partir de um instrumento composto por 12 dimensões sobre a cultura de segurança. A análise dos dados feita com base nos percentuais de respostas positivas, negativas e neutras de cada dimensão. **Resultados:** a cultura de segurança do paciente foi caracterizada positivamente a partir da dimensão Expectativas sobre o seu supervisor/chefe e ações promotoras de segurança do paciente (56,6%); negativamente na esfera Adequação de profissionais (75,5%); e de forma neutra, no âmbito do Aprendizado organizacional - melhoria contínua (61,1%). **Conclusão:** compreendeu-se que os técnicos de enfermagem caracterizam a cultura de segurança do paciente no setor de emergência como um aspecto importante no ambiente de trabalho, mas que precisa ser otimizado.

Descritores: Técnicos de Enfermagem; Segurança do Paciente; Emergências; Cultura Organizacional; Gestão da Segurança.

Introduction

The culture of patient safety is configured in the ideals, actions, perspectives, beliefs and individual/collective knowledge of the professionals, present in the health field, which directly imply in the care provided to the patient[1-2]. Although it is essential in health services and despite the wide benefits, it is perceived that there are obstacles to its implementation, as a result of punitive measures historically employed in these environments, which still predominate in the perception of professionals. Therefore, there is a blockage about the discussion of this subject and a delay in the improvement of care[3-4].

Although the occurrence of adverse events is evident, it should be noted that the adoption of an institutional educational and non-punitive culture is the most appropriate in order to promote quality care[1]. The importance of the active participation of all health professionals, and among them, the nursing team, is also highlighted. This category is more susceptible to make mistakes, since it has the largest number of workers working in the most diverse sectors and levels of health care, besides carrying out work tasks involving the patient more directly[3-4]. In the nursing team itself, the performance of the nursing technician stands out, due to the number of activities developed with the patient being greater when compared to the number of activities developed by the other members of the professional team and, mainly, to the high number of nursing technicians, depending on the work shift and the level of care per patient[4].

Thus, according to the needs of the sector and the demand of patients, the complexity and number of procedures to be performed change and may offer greater risk, both to the patient and to the professional present in this environment, due to the overload of work and/or the knowledge deficit for the execution of these activities, as is the case of the emergency and emergency units[2,5]. These sectors stand out for being appropriate for the priority care of patients with acute diseases, with higher risk of death.

In this sense, a specialized, fast and efficient team work becomes essential. Moreover, most of the time, these emergency environments have an excessive number of patients, scarcity of resources, insufficient quantity of professionals, overload of the nursing team and, consequently, increase in the degree of stress[5]. For these characteristics, it is essential the implementation of the culture of safety of the patient in emergency and emergency environments, due to the search for a standard of effectiveness in health care, performed particularly by nursing technicians. Therefore, when the perception of these subjects is investigated, it is possible to identify which gaps permeate and contribute to the existence of flaws in the practices developed by them, and thus, to formulate strategies that can minimize these weaknesses.

It is noted the importance of exploring the culture of safety of the patient - according to the point of view of nursing technicians - in the midst of aspects related to structure, process and result. These elements can directly interfere in the quality of the care provided in a critical and precise assistance environment, as is the emergency sector, especially in the national context, because these workers are in the category of Nursing Vocational High School with the highest quantity in the health services and that, for several times, does not have this subject during the formation, besides there are no investigations that cover this professional class in this work scope.

Therefore, the following guiding question arises: how is the patient's safety culture characterized by nursing technicians from an emergency department of a state hospital in the Northeast of Brazil? The objective was to characterize the culture of safety of the patient in the perspective of technicians of nursing of a sector of emergency.

Methods

A cross-sectional study[6] developed in the emergency sector of a state hospital in the Northeast, a reference in the region for this care profile, since it

presents an average of 25,000 patients/month, coming from the capital and other regions. It is worth mentioning that the institution presents a Patient Safety Center that develops activities on the subject in evidence for the professionals.

The emergency room investigated as a research environment has the following departments: reception with computerized system of records and admissions, risk classification and reception room, room for the treatment of adult and child polytrauma, medical offices, nursing management, laboratory, pharmacy, resuscitation room, blood bank, hemodialysis sector, radiology sector, endoscopy and tomography.

Participants were identified in their work environment based on a list distributed by the service itself. For the selection, non-probabilistic sampling of the intentional type was used, since all individuals in the investigated professional category had potential to compose the final sample. Thus, the professionals who were working in the sector during the collection period and allocated for at least three months were included[7]. Workers on vacation, leave, or otherwise removed from professional activities during the collection period are excluded. Of the 245 nursing professionals, 39 are nurses and 206 are nursing technicians. Of these, from the eligibility criteria, 175 constituted the final sample of this work.

The data collection took place between January and February 2017 with the help of a team previously trained and equipped for the approach. Clarification about the research was done, besides the delivery of the Free and Informed Consent Term and the research instrument to the selected nursing technicians. In case of doubts, clarifications were provided by one of the team members who remained present in the environment until the return of the questionnaire by the participant.

The instrument used is entitled Patient Safety Research in Hospitals[8]. This choice was made because this material is available free of charge, transculturally adapted to the Portuguese language and validated for application in Brazil, as well as in almost all

continents, in addition to its efficiency and reliability. The instrument allows the evaluation of the safety culture in an isolated way, either by unit and/or sector of the health service, and the institution in general[8-9].

The structure of this instrument contains 42 items composed of objective questions, which cover 12 dimensions that measure the culture of patient safety. These dimensions are organized as follows: seven are related to the safety culture within the unit, three refer to the hospital organization and two to results. Also included in this document are aspects that cover data on the sociodemographic and labor profile of the research participants. The points of each dimension were evaluated numerically according to the answers given by the participants of the study. The items represented by the letters A, B and F have a scale of agreement: 1- I totally disagree; 2- I disagree; 3- I neither agree nor disagree; 4- I agree; 5- I totally agree; while items C, D and E have a scale based on frequency: 1- never; 2- rarely; 3- sometimes; 4- almost always; 5-sempre.

When the dimensions present a percentage equivalent to or greater than 75.0% of positive responses, it means that the areas evaluated have strength in relation to the subject. However, critical areas are considered those with a percentage of 50.0% or more of negative answers to positive questions or positive answers to negative questions[7]. The data collected were tabulated in the IBM® Statistical Package for the Social Sciences and later analyzed in relative and absolute frequencies, in addition to means.

This research was approved by the research ethics committee of the Federal University of Rio Grande do Norte, by means of opinion No. 1,847,136/2016, under Certificate of Presentation for Ethical Appreciation No. 61201316.3.0000.5537.

Results

Among the 175 (100.0%) participants in the final sample of this study, 141 (80.6%) were female and 34 (19.4%) male. Regarding age, 17 (9.7%) were un-

der 30 years old, 109 (62.3%) from 30 to 50 years old, and 49 (28.0%) were over 50. Regarding the labor aspects, 14 (8.0%) had working time between 3 months and less than 1 year in the current sector, 112 (64.0%) between 1 and 5 years and 49 (28.0%) between 6 and 10 years; 11 (6.3%) worked less than 20h per week, 114 (65.1%) from 20 to 39h and 50 (28.6%) from 40 to 59h; 77 (44.0%) worked as a nur sing technician from 1 to 10 years; 50 (28.6%) from 11 to 20, 39 (22.3%) from 21 to 30 and 9 (5.1%) from 31 to 40 years.

Table 1 shows the percentage of responses given by nursing technicians regarding their perception of the patient's safety culture, by analyzed dimension.

Table 1 – Percentage of the answers of the nursing technicians by dimension of the culture of safety of the patient. Natal, RN, Brazil, 2017

Safety Culture Dimensions of the Hospital Research on Patient Safety Culture	Positive answers (%)	Neutral answers (%)	Negative answers (%)
Within the unit			
Teamwork within the units	37.7	29.3	33.0
Expectations about your supervisor/head and patient safety promoting actions	56.6	18.3	25.1
Organizational learning - continuous improvement	16.6	61.1	22.3
Suitability of professionals	10.6	13.9	75.5
Opening of communication	44.6	20.5	34.9
Non-punitive responses to errors	16.6	56.0	27.4
Return of information and communication about the error	32.5	08.1	59.4
Within the hospital organization			
Management support for patient safety	18.3	57.7	24.0
Team work between units	25.2	29.6	34.9
On-duty or shift/transfer passage	20.5	52.1	27.4
Result Variables			
Frequency of event reports	20.5	14.0	65.5
General perception of patient safety	37.8	20.0	42.2

Discussion

Although the objective of this study has been achieved, it is considered as a limitation that it covered only one professional category, since to obtain more reliable results for the safety culture developed in the work environment, it is necessary the participation of the other members of the health team of the sector investigated.

However, this work contributes to the characterization of the patient safety culture through an expressive group of health professionals, by providing a situational diagnosis that can be a reflection of other realities and valuing the importance of evaluating the patient safety culture as punctuality inherent to the quality of care regardless of the health service.

This research shows that it does not differ from the profile historically traced by nursing in what refers to the predominant feminine quantitative. However, it is emphasized that a masculine tendency has been established in the category due to its growing number, a situation that has occurred since the beginning of the 90s[4].

Regarding the age of the professionals in this

unit, there may be an indication of a certain maturity and experience to act in the care assistance[3,10]. Already concerning working time, it is suggested that these professionals are still adapting in the sector and, therefore, may not be fully familiar with the routines and skills needed to perform the activities inherent to the unit[11].

On the other hand, the fact that most of the participants in this research have been working as nursing technicians for between 1 and 10 years can be understood in two ways: the first is that, although there is no significant time of work experience, these individuals possibly possess dexterity as to the basic and primordial techniques to be applied in their routines, and the second refers to the idea that over time, many of these professionals may begin to develop plastered tasks and, therefore, there is the possibility of unleashing inappropriate behavior and causing negative effects to the patient[3,11-12].

When analyzing the working hours of nursing technicians, it is assumed that most of them work in other institutions, that is, they are submitted to multiple employment relationships, which can threaten the health of the worker and/or compromise the assistance provided by him in the care of the patient by providing greater risk of adverse events[3,13-14].

Among the dimensions with greater positive perceptions, the so-called "Expectations about your supervisor/head and actions promoting patient safety" highlights that there is awareness among nursing technicians about the importance of developing activities together and horizontally, in order to promote greater harmony between management and care, and consequently optimize the quality of care[3,15-16].

Moreover, the fact that most of the nursing technicians have time to work in their respective functions and in the emergency and emergency sector, is a positive point for this dimension, because these subjects have extended perceptions and experiences with the main and immediate needs inherent to the work environment, which can be shared with the management, in order to generate changes in the quality of

the culture of patient safety[1,3,11,13,16].

Therefore, the implementation of strategies for the integration of team professionals and patient safety becomes feasible based on the autonomy and valorization of knowledge, aspects that are approached in the dimension "Openness of communication", which, although it has not reached a percentage equivalent or greater than 75.0%, presents itself as a positive perception according to the participants of this research.

This being said, communication, as it is an essential issue in team work, allows professionals to have the freedom to expose what they think about a certain conduct; to indicate how a procedure could be better performed; to suggest issues that can be worked on in continuing education and at the same time necessary for the institution; and/or to contribute to the construction of indicators of patient safety[1-2,5,12].

The dimension "General perception of patient safety" signals that nursing technicians, in general, perceive the strengthening of the culture of patient safety in the health services investigated in a negative way, due to the bad dimensioning of the personnel, the working conditions (physical structure, equipment and basic materials), the little participative management and the low level of understanding about patient safety of some professionals and managers[1,3,5,15].

It is important to emphasize that the age range of the participants of this research can be indicative that reflects this negative perception about the culture of safety of the patient, since it is a considerably recent theme and/or it has not been approached during the formation process of these nursing technicians. Therefore, it implies a gap in knowledge, and, later, a difficulty in establishing a more appropriate culture[2,9,12,15].

Among the negative dimensions that presented percentages above 50%, the "Adequacy of professionals" demonstrates the concern of the workers in relation to the recording of errors committed in their functional records. Moreover, this result directs to the obstacles that the management has in the imple-

mentation of the safety culture, because it becomes primordial the notification of the errors and the effective communication, in order to strengthen the non-punitive culture and to generate more confidence in the team[10,12,15,17].

In line with this fact, the problem of underreporting of adverse events arises, a fragility investigated in the south of the country, which indicates the use of a punitive culture by the institution investigated, in order to cause harm in the attempt to implement the culture of security[18]. However, the concern and fear of these workers about a possible punishment is confirmed in the "Frequency of Event Reporting" dimension, in which nurses describe not being in the habit of reporting adverse events and, as a consequence, there is underreporting.

In this perspective, the dimension "Return of information and communication about the error", presents as a result the absence of information about adverse events for the team, in order to deprive them of understanding the importance of using strategies that will minimize and prevent the incidence of these losses. Faced with this, it is essential that managers articulate themselves to promote the dissemination of feedbacks to the team, and thus develop an expanded relationship, horizontal, practical, trust and learning with all servers[17-19].

In the neutral answers, the dimension "Organizational learning - continuous improvement" points out that the nursing technicians don't have a defined perception about the culture of safety of the patient, because they don't understand the learning as an aspect promoter of the professional valorization. Even so, it is shown the need for a continuous training of these individuals, in order to generate a more qualified care and, consequently, the recognition of their work activities[17-20].

In the sphere "Management support for patient safety", it is suggested that management should provide continued education about aspects related to patient safety, in the scope of training them on this issue,

and as a result, minimize and prevent adverse events, enhance the quality of health care offered, in addition to encouraging the development of a just culture[18,20].

Furthermore, the characteristics of the punitive culture in the evaluated institution were evidenced, because, according to the dimension "Non-punitive responses to errors", the nursing technicians indicated that they do not have relevant discernment about the existence of the error, which can cause the incidence of under-notifications and, as a consequence, do not offer reliable data to the managers and to the safety nuclei of the patient for investigation and implantation of actions related to the safety of the patient that will promote the improvement of health assistance[1,4,20].

Conclusion

Nursing technicians characterize the culture of patient safety in an emergency sector in a positive way about the expectations about their supervisor/head and the actions that promote patient safety, in a negative way about the adequacy of professionals, and present a neutral perspective about organizational learning - continuous improvement.

Acknowledgements

Colaborations

Santos VEP contributed in the conception and design of the study, relevant critical revision of the intellectual content and approval of the final version to be published. Silva MF, Bezerril MS and Chiavone FBT contributed in the analysis and interpretation of the data and writing of the manuscript. Morais SHM, Costa MEG and Dantas MNP contributed in the analysis and interpretation and collection of data.

References

1. Pinheiro MP, Silva Júnior OC. Evaluation of the patient safety culture within the hospital organization of a university hospital. Enfermería Glob. 2017; 20(3):325-38. doi: http://dx.doi.org/10.6018/eglobal.16.1.238811

2. Paixão DPSS, Batista J, Maziero ECS, Alpendre FT, Amaya MR, Cruz EDA. Adhesion to patient safety protocols in emergency care units. Rev Bras Enferm. 2018; 71(Suppl 1):577-84. doi: http://dx.doi.org/10.1590/0034-7167-2017-0504

3. Cruz EDA, Rocha DJM, Mauricio AB, Ulbrich FS, Batista J, Maziero ECS. Safety culture among health professionals in a teaching hospital. Cogitare Enferm. 2018; 23(1):e50717. doi: http://dx.doi.org/10.5380/ce.v23i1.50717

4. Conselho Federal de Enfermagem. Resolução nº. 543, de 18 de abril de 2017. Atualiza e estabelece parâmetros para o Dimensionamento do Quadro de Profissionais de Enfermagem nos serviços/locais em que são realizadas atividades de enfermagem [Internet]. 2017 [cited Aug 30, 2020]. Available from: http://www.cofen.gov.br/resolucao-cofen-5432017_51440.html

5. Brandão MGSA, Brito OD, Barros LM. Gestão de riscos e segurança do paciente: mapeamento dos riscos de eventos adversos na emergência de um hospital de ensino. Rev Adm Saúde. 2018; 18(70):1-13. doi: https://dx.doi.org/10.23973/ras.70.84

6. Malta DC, Szwarcwald CL, Barros MBA, Gomes CS, Machado IE, Souza Júnior PRB, et al. The COVID-19 Pandemic and changes in adult Brazilian lifestyles: a cross-sectional study, 2020. Epidemiol Serv Saúde. 2020; 29(4):e2020407. doi: https://doi.org/10.1590/S1679-49742020000400026

7. Agency for Healthcare Research and Quality´s (AHRQ). Hospital survey on patient safety culture [Internet]. 2013 [cited Aug 30, 2020]. Available from: https://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyhospital/index.html

8. Reis CT, Laguardia JA, Barros CG, Andreoli PBA, Martins M. Reliability and validity of the Brazilian version of the HSOPSC: a reassessment study. Cad Saúde Pública. 2019; 35(8):e00246018. doi: https://doi.org/10.1590/0102-311X00246018

9. Massoco ECP, Melleiro MM. Comunication and patient safety: perception of the nursing staff of a teaching hospital. Rev Min Enferm. 2015; 19(2):187-91. doi: http://doi.org/10.5935/1415-2762.20150034

10. Salvador PTCO, Rodrigues CCFM, Bezerril MS, Ferreira LL, Chiavone FBT, Virgílio LA, et al. Perceptions of nursing professionals regarding the integration of nursing technicians in the systematization of care. Esc Anna Nery. 2017; 21(2):e20170035. doi: https://doi.org/10.5935/1414-8145.20170035

11. Bampi R, Lorenzini E, Krauzer IM, Ferraz L, Silva EF, Dall' Agnol CM. Perspectives of the nursing team on patient safety in an emergency unit. Rev Enferm UFPE on line [Internet]. 2017 [cited Aug 30, 2020]; 11(2):1-8. Available from: https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/11977/14529

12. Lemos GC, Azevedo C, Bernardes MFVG, Ribeiro HCTC, Menezes AC, Mata LRF. The patient safety culture in the scope of nursing: theoretical reflection. Rev Enferm Centro-O Min. 2018; 8(1):e2600. doi: http://dx.doi.org/10.19175/recom.v8i0.2600

13. Paula AA, Gusmão AM, Maia LFS. Avaliação do perfil dos trabalhadores da enfermagem em pronto socorro. Rev Recien [Internet]. 2017 [cited Aug 30, 2020]; 7(19):28-38. Available from: https://www.recien.com.br/index.php/Recien/article/view/180/pdf_1

14. Conselho Federal de Enfermagem. COFEN flexibiliza jornada de trabalho dos Responsáveis Técnicos em Enfermagem [Internet]. 2016 [cited Aug 30, 2020]. Available from: http://www.cofen.gov.

br/cofen-flexibiliza-jornada-de-trabalho-dos-re-sponsaveis-tecnicos-em-enfermagem_37931.html

15. Costa DB, Ramos D, Gabriel CS, Bernardes A. Patient safety culture: evaluation by nursing professionals. Texto Contexto Enferm. 2018; 27(3):e2670016. doi: 10.1590/0104-070720180002670016

16. Vargas D, Soares J, Ponce TD, Oliveira BB. Psychiatric urgency and emergency care nurses: an analysis of their professional and educational profile. Cogitare Enferm. 2017; 22(4):e50704. doi: https://dx.doi.org/10.5380/ce.v22i4.50704

17. Amiri M, Khademian Z, Nikandish R. The effect of nurse empowerment educational program on patient safety culture: a randomized controlled trial. BMC Med Educ. 2018; 18(158):1-8. doi: https://doi.org/10.1186/s12909-018-1255-6

18. Tomazoni A, Rocha PK, Ribeiro MB, Serapião LS, Souza S, Manzo BF. Perception of nursing and medical professionals on patient safety in neonatal intensive care units. Rev Gaúcha Enferm. 2017; 38(1):e64996. doi: https://doi.org/10.1590/1983-1447.2017.01.64996

19. Farokhzadian J, Nayeri ND, Borhan F. The long way ahead to achieve an effective patient safety culture: challenges perceived by nurses. BMC Health Serv Res. 2018; 18(1):654. doi: https://doi.org/10.1186/s12913-018-3467-1

20. Llapa-Rodriguez EO, Silva LSL, Menezes MO, Oliveira JKA, Currie LM. Safe patient care in the preparation and administration of medicines. Rev Gaúcha Enferm. 2017; 38(4):e2017-0029. doi: http://dx.doi.org/10.1590/1983-1447.2017.04.2017-0029