Original Article

TEXTO & CONTEXTO ENFERMAGEM
TEXT & CONTEXT NURSING TEXTO & CONTEXTO ENFERMERÍA

PATIENT SAFETY CULTURE FROM THE PERSPECTIVE OF NURSING PROFESSIONALS

Keila Ellen Viana[1]
Laura Misue Matsuda[1]
Andressa Martins Dias Ferreira[1]
Gislene Aparecida Xavier dos Reis[1]
Verusca Soares de Souza[2]
Sônia Silva Marcon[1]

[1]Universidade Estadual de Maringá, Programa de Pós-graduação em Enfermagem. Maringá, Paraná, Brasil.
[2]Universidade Federal do Mato Grosso do Sul, Campus Coxim. Coxim, Mato Grosso do Sul, Brasil.

ABSTRACT

Objective: to assess the patient safety culture among the Nursing team members of four public teaching hospitals.
Method: a cross-sectional study with a quantitative approach, conducted between June and September 2019, by applying the E-questionnaire of Hospital Safety Culture. The participants were 376 Nursing professionals from four hospitals, whose data were subjected to statistical analysis, considering the positive answers to the questions for the classification in strong areas (≥ 75%), areas with potential (50%-74.9%) and weak areas (≤ 49.9%) for the safety culture.
Results: only one dimension, organizational learning/continuous improvement, was considered strong for patient safety, for having obtained 84.8% of positive answers. Among the other dimensions, four were considered areas with potential and seven, weak areas.
Conclusion: the Nursing professionals assessed the patient safety culture in the researched hospitals as weak.

DESCRIPTORS: Patient safety. Organizational culture. Nursing. Quality of health care. Teaching hospitals.

HOW CITED: Viana KE, Matsuda LM, Ferreira AMD, Reis GAX, Souza VS, Marcon SS. Patient safety culture from the perspective of nursing professionals. Texto Contexto Enferm [Internet]. 2021 [cited YEAR MONTH DAY]; 30:e20200219. Available from: https://doi.org/10.1590/1980-265X-TCE-2020-0219

CULTURA DE SEGURANÇA DO PACIENTE NA ÓTICA DE PROFISSIONAIS DE ENFERMAGEM

RESUMO

Objetivo: avaliar a cultura de segurança do paciente entre a equipe de enfermagem de quatro hospitais de ensino públicos.
Método: estudo do tipo transversal, de abordagem quantitativa, realizado entre junho e setembro de 2019, mediante aplicação do E-questionário de Cultura de Segurança Hospitalar. Participaram 376 profissionais de enfermagem de quatro hospitais, cujos dados foram submetidos à análise estatística, considerando as respostas positivas às questões para classificação em áreas fortes (≥ 75%), áreas com potencial (50% a 74,9%) e áreas frágeis (≤ 49,9%) para a cultura de segurança.
Resultados: somente a dimensão aprendizagem organizacional/melhora continuada foi considerada forte para a segurança do paciente, por ter obtido percentual de 84,8% de respostas positivas. Dentre as demais dimensões, quatro foram consideradas como áreas com potencial e sete como áreas frágeis.
Conclusão: os profissionais de enfermagem avaliaram a cultura de segurança do paciente nos hospitais investigados como sendo frágil.

DESCRITORES: Segurança do paciente. Cultura organizacional. Enfermagem. Qualidade da assistência à saúde. Hospitais de ensino.

CULTURA DE SEGURIDAD DEL PACIENTE DESDE LA PERSPECTIVA DE LOS PROFESIONALES DE ENFERMERÍA

RESUMEN

Objetivo: evaluar la cultura de seguridad del paciente entre los integrantes del equipo de Enfermería de cuatro hospitales escuela públicos.
Método: estudio de tipo transversal con enfoque cuantitativa, realizado entre junio y septiembre de 2019, mediante la aplicación del cuestionario electrónico de Cultura de Seguridad Hospitalaria. Los participantes fueron 376 profesionales de Enfermería de cuatro hospitales, cuyos datos fueron sometidos a análisis estadístico, considerando las respuestas positivas a las preguntas para definir la clasificación en áreas fuertes (≥ 75%), áreas con potencial (50% a 74,9%) y áreas débiles (≤ 49,9%) para la cultura de seguridad.
Resultados: solamente la dimensión “aprendizaje organizacional/mejora continua” se consideró como fuerte para la seguridad del paciente, por haber obtenido 84,8% de respuestas positivas. De las demás dimensiones, cuatro se consideraron como áreas con potencial y siete como áreas débiles.
Conclusión: los profesionales de Enfermería evaluaron la cultura de seguridad del paciente en los hospitales investigados como débil.

DESCRIPTORES: Seguridad del paciente. Cultura organizacional. Enfermería. Calidad de la atención a la salud. Hospitales escuela.

INTRODUCTION

Adverse events have aroused concern in the health area, due to the risks and failures to which patients are exposed and to the high rates of morbidity and mortality related to their incidence[1]. The World Health Organization (WHO) estimates that one out of ten patients is subjected to some type of harm during hospital care and that this number can be higher in developing countries[2].

In Brazil, data indicate that in 2016 there were 53,997 incidents related to health care and, of that number,50,735 were in hospitals, causing 276 deaths[3]. Given the magnitude of the problem, it becomes important to implement actions that promote a safe environment for the patients[4].

Patient safety is defined as the "reduction, to an acceptable minimum, of the risk of unnecessary harm associated with health care"[5]. Among the strategies to prevent unnecessary harms, it is recommended to promote safety culture in the health services, which refers to the values, attitudes and perceptions of individuals and/or a group with respect to the operations in the organization, interaction with the work unit, organizational structures and systems, which, in turn, generate behaviors that favor safety[6].

The safety culture contributes to the quality of patient care,[7] as it demands that institutions operationalize models that improve health care[8]. Thus, it is fundamental that the health organizations invest in the promotion of the safety culture and ensure safe care to their clients/patients[9].

For the results of health care to be positive, it is fundamental that all professionals in the organization are sensitized and committed to the process that creates and consolidates the safety culture[10]. In this aspect, a study that evaluated the patient safety culture of the Nursing teams from two hospital institutions identified that six of the 12 dimensions analyzed were weak, indicating that this item was not valued in those places[11]. Another research study carried out in two intensive care units also evaluated the patient safety culture from the perspective of Nursing professionals and identified that it was not consolidated since, of the 12 dimensions assessed, 11 were weak[12].

The assessment of the patient safety culture in teaching hospitals is important because it makes it possible to identify their organizational conditions, structure and implement safe practices that contribute to the prevention of incidents and, consequently, improve quality of care[7–9]. It is important to highlight that educational institutions have different organizational structures with characteristics that are different from other health organizations, as they serve as a learning field for health activities and this provides different levels of safety culture[13].

Regarding studies that evaluate the safety culture in teaching hospitals, it is considered that they are a permanent need because their results can contribute to the formulation of strategies that seek improvements in health care and consolidate the safety culture in institutions, based on the prevention of adverse events and on organizational learning in the face of errors.

Given the above, the following question emerges: "How does the patient safety culture present itself among Nursing professionals working in teaching hospitals?" The following objective was established to answer this question: to assess the patient safety culture among the Nursing team members from four public teaching hospitals.

METHOD

A cross-sectional study with a quantitative approach, conducted from June to September 2019 with Nursing professionals working in four public teaching hospitals in the state of Paraná, located in the Northeast, North, West and Midwest regions (Hospital A; Hospital B; Hospital C; and Hospital D, respectively). It is worth remembering that Hospitals A, C and D started the implementation of patient safety strategies, according to the recommendations of the Brazilian Ministry of Health,[5] in 2014; and that Hospital B did so in 2015.

The inclusion criteria were as follows: being a hospital employee, regardless of the type of employment contract (statutory civil servant, employed under the Consolidated Labor Laws, licensed, or service provider) or of the area of activity, and having started work activities at the hospital at least three months ago. Professionals who went on leave from work were excluded from this study.

The researchers established a stratified sample by professional category, in which the participants were categorized as follows: mid-level professional (nursing assistant/technician) and higher education professional (nurse). Of the four hospitals where the research was conducted, the sum of participants was 335 nurses and 1,634 mid-level professionals. When considering the calculation for stratified sampling, the minimum number of participating professionals should be 60 nurses and 316 mid-level professionals.

The data were collected according to the agenda established by the Nursing Directorates of each hospital, in person and during working hours. To this end, the questionnaires were delivered at the beginning of the work shift and collected shortly before the end. In all the institutions, up to three visits were made in each of the work shifts so that, as far as possible, the minimum number proportional to the total number of professionals in the institution was reached.

The instrument used in data collection was the Hospital Survey on Patient Safety Culture – HSOPSC E-questionnaire, adapted and validated for Brazil in 2017[14]. This questionnaire contains 42 questions/items distributed in eight sections (from A to H), which are grouped into 12 dimensions (D) of the patient safety culture (PSC). The items in sections “A, B, C, D, E and F” are arranged as follows across the dimensions: D1 - frequency of adverse events reported (D1, D2, D3); D2 - safety perception (A10, A15, A17, A18); D3 - expectations and actions of the unit/service management/ supervision (B1, B2, B3, B4); D4 - organizational learning/continuous improvement (A6, A9, A13); D5 – team work within the unit/service (A1, A3, A4, A11); D6 – openness for communication (C2, C4, C6); D7 - feedback and communication about errors (C1, C3, C5); D8 – non-punitive response to errors (A8, A12, A16); D9 – staffing (A2, A5, A7, A14); D10 – hospital management support for patient safety (F1, F8, F9); D11 – teamwork (F2, F4, F6, F10); and D12 – internal transfer and shift change (F3, F5, F7, F11).[14]

The dimensions are assessed by means of a *Likert*-type scale varying from 1 to 5 points, distributed as follows: 1= I totally disagree or never; 2= I disagree or rarely; 3=Neither agree nor disagree or sometimes; 4= I agree or almost always; 5= I totally agree or always.

The HSOPSC questionnaire contains 18 reverse questions and, in these cases, when the participants disagree with the item formulated negatively, they will be giving a positive opinion. This particularity applies to the following items: Section A: 5/7/8/10/12/14/16/17; Section B: 3/4; Section C: 6; and Section F: 2/3/5/6/7/9/11. As a result, the proportional score for these items was also calculated in a reverse manner[14].

Section “G” contains nine items for the characterization of research participants, one item that assesses the perception of patient safety in the hospital, with a score varying from 1 to 10, and one question about the number of incident notifications. Finally, Section “H” consists of a single optional item intended for comments related to patient safety[14].

The data were inserted in Microsoft® Excel® 2010 spreadsheets and, subsequently, they were analyzed with the aid of the *Statistica Single User* software, version 13, with presentation of measures of frequency, percentage and p-value. The following formula was applied to identify the percentages of the instrument's dimensions:

$$X = \frac{\textit{Number of positive answers of dimension X}}{\textit{Total number of valid answers to the items of dimension X (positive, neutral and negative)}} x\ 100$$

where: X=Dimension to be calculated.

The scores were analyzed according to the participants' professional category (nurses and mid-level professionals [nursing assistants/technicians]). The existence of differences between the categories was determined using the chi-square test and considered significant when p-value ≤ 0.05, which is represented by the estimate of the true value of the population parameter in balance between precision and reliability of the study.

In the analysis of the patient safety culture, the classification by Sorra and Nieva[15] was used, considering the following: ≥ 75% of positive answers: strong areas for patient safety; 50%-74.9% of positive answers: areas with potential for patient safety; and ≤ 49.9% of positive answers: weak areas for patient safety.

This study observed the rules contained in Resolution 466/2012 of the National Health Council.

RESULTS

The participants were 376 Nursing professionals, of which 116 worked in Hospital A, 86 in Hospital B, 112 in Hospital C, and 62 in Hospital D. Among the participants, 123 (32.7%) were nurses and 253 (67.3%) were mid-level professionals. The time of professional experience with the highest prevalence was between two to five years (27.1%); most of them have worked in the current area/unit in the period for two to five years (32.2%), and the working hours of the majority (83.8%) corresponded to 40 hours a week or more.

The participants presented a higher percentage for the negative answers with 46.4% (n=2,079) of the items related to patient safety culture; while positive answers were given to 41.4% (n=1,855) of the items and neutral answers to 12.2% (n=548).

Table 1 shows the frequencies, the proportions of positive answers attributed to each of the dimensions, and the statistical significance values (p-values) between the two categories addressed.

Table 1 – Patient safety dimensions assessed by the Nursing team professionals. Paraná, Brazil, 2019. (n=376)

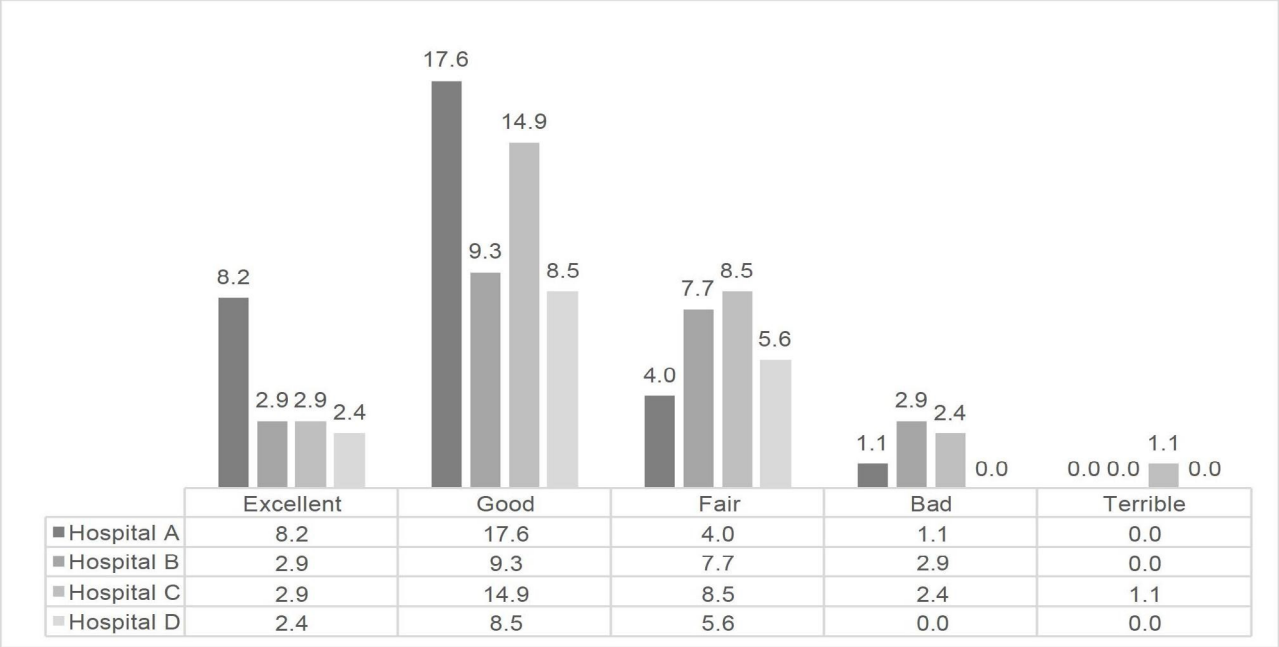
Domain	Category						*p-value*
	Mid-level professional (Nursing assistant/ technician)		Higher education professional (Nurse)		Total		
	n	%	N	%	n	%	
D1- Frequency of events reported							
Positive	123	32.7	41	10.9	164	43.6	
Negative	88	23.4	58	15.4	146	38.8	0.0174*
Neutral	42	11.2	24	6.4	66	17.6	
D2 - Safety perception							
Positive	34	9.0	25	6.6	59	15.7	
Negative	185	49.2	78	20.7	263	69.9	0.1303
Neutral	34	9.0	20	5.3	54	14.4	

Table 1 – Cont.

Domain	Category				Total		*p-value*
	Mid-level professional (Nursing assistant/ technician)		Higher education professional (Nurse)				
	n	%	N	%	n	%	
D3 - Expectations and actions of the unit/service management/supervision							
Positive	55	14.6	23	6.1	78	20.7	
Negative	133	35.4	75	19.9	208	55.3	0.2979
Neutral	65	17.3	25	6.6	90	23.9	
D4 - Organizational learning/Continuous improvement							
Positive	223	59.3	96	25.5	319	84.8	
Negative	18	4.8	12	3.2	30	8.0	0.0173*
Neutral	12	3.2	15	4.0	27	7.2	
D5 - Teamwork within the unit/service							
Positive	173	46.0	83	22.1	256	68.1	
Negative	73	19.4	35	9.3	108	28.7	0.7979
Neutral	7	1.9	5	1.3	12	3.2	
D6 - Openness for communication							
Positive	142	37.8	49	13.0	191	50.8	
Negative	67	17.8	52	13.8	119	31.6	0.0043*
Neutral	44	11.7	22	5.9	66	17.6	
D7 - Feedback and communication about errors							
Positive	177	47.1	77	20.5	254	67.6	
Negative	43	11.4	30	8.0	73	19.4	0.2237
Neutral	33	8.8	16	4.3	49	13.0	
D8 - Non-punitive response to errors							
Positive	161	42.8	74	19.7	235	62.5	
Negative	74	19.7	39	10.4	113	30.1	0.8022
Neutral	18	4.8	10	2.7	28	7.4	
D9 - Staffing							
Positive	49	13.0	33	8.8	82	21.8	
Negative	162	43.1	71	18.9	233	62.0	0.2577
Neutral	42	11.2	19	5.1	61	16.2	
D10 - Hospital management support for patient safety							
Positive	50	13.3	30	8.0	80	21.3	0.3037
Negative	203	54.0	93	24.7	296	78.7	
D11 - Teamwork							
Positive	79	21.0	37	9.8	116	30.9	
Negative	120	31.9	60	16.0	180	47.9	0.9665
Neutral	54	14.4	26	6.9	80	21.3	
D12 - Internal transfer and shift change							
Positive	14	3.7	7	1.9	21	5.6	
Negative	228	60.6	112	29.8	340	90.4	0.8777
Neutral	11	2.9	4	1.1	15	4.0	

*Significant chi-square test considering a significance level of 5%.

Figure 1 contains the data on the assessment of patient safety in the unit, according to the Nursing professionals.



	Excellent	Good	Fair	Bad	Terrible
Hospital A	8.2	17.6	4.0	1.1	0.0
Hospital B	2.9	9.3	7.7	2.9	0.0
Hospital C	2.9	14.9	8.5	2.4	1.1
Hospital D	2.4	8.5	5.6	0.0	0.0

Figure 1 – Assessment of patient safety by Nursing professionals from four public teaching hospitals in Paraná (n=376), Brazil, 2019.

DISCUSSION

Of the 12 dimensions under study, one (D4) was considered as a “strong area for patient safety” while four were considered as “areas with potential” (D5, D6, D7 and D8). On the other hand, seven dimensions (D1, D2, D3, D9, D10, D11 and D12) were signaled as “weak areas”, which allows asserting that the patient safety culture in the hospitals under study is not consolidated.

These data are in line with other studies carried out in Brazil, compared to the research carried out in three neonatal intensive care units (NICUs) in public hospitals of Belo Horizonte, which obtained a higher percentage of negative answers for the safety culture in 11 of the 12 dimensions evaluated[16]. Another study carried out in a public hospital in the state of Acre evidenced six weak areas for patient safety[17]. In this perspective, the consolidation of the patient safety culture is challenging for the managers of public institutions because there is a need for daily reflections on the implementation and execution of improvements in the care practice[4,9–12].

Also regarding the “weak areas for patient safety”, two dimensions stood out for presenting a lower percentage of positive answers: internal transfer and shift change (D12) and safety perception (D2). Internal transfer and shift change (D12) was also considered weak for patient safety in research studies carried out in Brazil, in three pediatric emergency units in hospitals of Florianópolis (45.0%),[18] in two adult ICUs of public hospitals in the South region (34.6%)[12] and in three neonatal ICUs in public hospitals of Belo Horizonte (45.7%)[16].

With the negative assessment of D12, it is observed that effective communication between units and the team is a challenge in healthcare units in the hospital context, suggesting the need for standardization of information to guarantee continuity of safe care. Actions that can improve the aforementioned situation are included in a study[19] carried out in a coronary care unit, which points out that working as a team in the context of an institution, and not just as a sector/unit, facilitates the

work process because good interpersonal relationships promote the cooperation of team members and strengthens the safety culture.

Dimension D2, safety perception, was also considered as weak. These data corroborate with the study[19] carried out in public hospitals from Rio de Janeiro and Belo Horizonte[16], which reinforce this finding, since both obtained low percentages of positive answers in this dimension: 32.2% and 36%, respectively.

The weak perception of patient safety, observed in the four hospitals surveyed in this study, denotes the need to rethink the educational actions of these institutions as a means of ensuring that good Nursing practices are seen as safety actions and receive the necessary attention so that procedures are carried out in accordance with the current standards and techniques.

The previous statement is based on the literature,[12] which indicates gaps in the safety culture in health institutions and suggests measures to strengthen it, such as investment in permanent education of workers/employees and more support from the managers for the promotion of safety.

The "teamwork within the unit/service" dimension (D5) was assessed as an "area with potential for patient safety". Teamwork is considered one of the essential elements for the safety culture in health institutions,[16] as it is a primary factor for health care, since it allows grouping different professionals who provide direct and indirect care to the patient,[9] aiming at treatment, recovery and discharge. Thus, for teamwork to be successful, it is necessary that the health services develop actions aimed at greater engagement and cooperation of their workers[4].

In the United States of America (USA), a study carried out with 447,584 health professionals in 680 hospitals (federally-owned health services, with non-governmental, non-profit and private initiative), using the HSOPSC instrument also found the "teamwork" dimension (61%) as an area with potential for patient safety[20]. In Brazil, a study carried out in two hospitals (one public teaching hospital and one philanthropic hospital) also highlighted teamwork (57.1%) as an area with potential for patient safety[11]. In this sense, it is observed that, even though they are hospitals with different types of management and culture, there are similarities in the "area with potential for safety" item.

It is considered that, for the Nursing team, teamwork is seen as an important issue for a positive safety culture. However, its strengthening should occur through actions aimed at promoting safe environments, permeated by a good relationship and mutual support among the professionals[12].

Also regarding areas assessed as with potential for patient safety, specifically on the "openness to communication" dimension (D6), a study carried out in Rio de Janeiro evidenced that this dimension reached 64% of positive answers[19]. In another study carried out in an NICU, this same dimension attained 55%, being considered as having potential for patient safety in both research studies[10]. The reason for these results was attributed to the freedom that the professionals had to report AE situations, without fear of punishment[10,20].

The findings of this study, referring to the dimension of feedback and communication about errors (D7), corroborate with a research carried out in hospitals in the North region of the state of Paraná, which pointed out the aforementioned dimension as with potential for patient safety, since the participants presented 51.8% of positive answers[11]. Also in the USA, in 2016, a research study that analyzed 680 general hospitals and had the participation of 447,584 health professionals identified that the dimension of feedback and communication about errors had potential for safety (68% of positive answers)[20]. These findings show that the institutions have different characteristics and regionality, but both research studies suggest that the professionals were satisfied and content with the feedback from the supervision about the events that occur in the unit.

Another dimension considered as with potential for patient safety was "non-punitive response to errors" (D8). This is a favorable conduct because a punitive culture discourages professionals from reporting their errors and this causes underreporting and hinders the analysis of situations and conditions that could be identified so that the error is not repeated[21].

A study carried out in two hospital institutions in the North region of the state of Paraná also identified the "non-punitive response to errors" dimension as an area with potential for patient safety, as it obtained a higher percentage of positive answers (58%)[11]. However, the authors warn that it is necessary to consider that there are institutions that act based on blaming and punishment, which leads to the need to promote changes in the traditional culture towards a just culture, based on open communication, without punishment, and aimed at encouragement and learning/continuous improvement through errors[22].

It is observed that there was predominance of dimensions assessed as weak for the patient safety culture. Despite this, when asked about the general perception about patient safety in the service, 50.3% of the professionals considered it as "Good". These data can be indicative that, although there are weaknesses, the workers recognize the initiatives implemented for safety in the researched institutions.

The results of a study[11] carried out with Nursing professionals corroborate the findings of this research, as they identified that 41.6% of the participants perceived the hospital safety culture as "Good". However, the research[12] carried out in four NICUs in public hospitals of Florianópolis showed that 45% of the Nursing professionals perceived safety as "Fair"[10].

With regard to the three dimensions that presented statistical significance between the professional categories, in the "frequency of events reported" dimension (D1), the "mid-level professionals" category presented a significantly greater association than the category of nurses, indicating that those have better access to notify events to their supervisors (nurses). On the other hand, the nurses reported having greater difficulty in notifying the events to their superiors. The authors of a study,[12] also carried out with Nursing professionals, refer that this fact may occur due to the fear of reporting errors because they believe that this can be used as a form of punishment. Another factor to be considered is the still prevailing conception that nurses, as team leaders and coordinators of the shift, cannot make errors. Undoubtedly, this point of view tends to limit the notifications of AEs and the solidification of the organizational safety culture.

Also with respect to dimension D1, it is considered that the notification of AEs must be encouraged among the Nursing professionals so that the risks present in the work processes are identified and, from there, strategies are implemented to reduce errors and ensure patient safety.

The "organizational learning/continuous improvement" dimension (D4) also presented a significant statistical difference ($p < 0.05$) between the categories. These data indicates that both categories have the same perception about this dimension, but also that the institutions provide training and qualification for the professionals. This is a result to be highlighted because the authors of a research study[10] on the safety culture, carried out in a neonatal ICU, suggest that health institutions should carry out frequent actions of continuing education so that their workers not only correct, but also learn from incidents that have occurred.

Despite being the only one of the 12 dimensions studied that obtained a result that can be considered favorable, this is an indication that the institutions are on their way to improving safety. This is because, according to the literature,[10,23] organizational learning is an important factor in healthcare organizations for the patient safety culture, as it contributes to the identification of factors that cause errors and also to the implementation of prevention strategies.

The "openness for communication" dimension (D6), which evaluates the freedom that professionals have in communicating something wrong that could negatively affect patient care, presented a significant difference, indicating that, as well as the "frequency of notifications" dimension (D1), mid-level professionals find it easier or feel safer to talk to their superiors about errors that occurred during patient care than nurses do. This result is worrying because, according to the literature,[10,12,24] in the context of the safety culture, the professionals must have freedom of speech, especially if the information refers to possible risks and adverse events in health care.

To improve patient safety, it is fundamental that the managers adopt an institutional policy of safety culture, combined with the participatory management model[11]. To this end, it is necessary for the institution to act based on principles of co-participation and co-responsibility in the development of safety indicators, in decision-making, and in the implementation of initiatives that reduce risks and AEs[25].

CONCLUSION

It is concluded that, in the hospitals under study, the patient safety culture is not consolidated because most of the dimensions, that is, seven out of 12, were considered as weak. In addition to that, the general percentage of negative answers was 47.7%. In opposition, the general percentage of positive answers was only 40.2%, with 12.1% of neutral answers.

Regarding the association between the professional categories investigated, three dimensions were statistically significant: frequency of events reported, organizational learning/continuous improvement, and openness for communication.

The results of this study are relevant because they indicate similarities and disagreements regarding the safety culture across the professional Nursing categories in four regions of the state of Paraná. In addition, the weak areas of the patient safety culture identified can support strategies for mitigating adverse events and, consequently, improving quality of care.

With regard to the limitations of this study, they include the fact of not having reached the number of mid-level professionals established in the sample calculation and also the fact of reporting the reality of only one Brazilian state. Despite this, it is considered that the results contribute to the knowledge about the topic and to new research studies on the patient safety culture in the hospital area.

REFERENCES

1. Brasil. Agência Nacional de Vigilância Sanitária (ANVISA). Assistência Segura: Uma ReflexãoTeórica Aplicada à Prática. Brasília, DF(BR): Anvisa; 2017 [cited 2020 June 04]. Available from: https://www20.anvisa.gov.br/segurancadopaciente/index.php/publicacoes/item/caderno-1-assistencia-segura-uma-reflexao-teorica-aplicada-a-pratica
2. World Health Organization (WHO). World Alliance for Patient Safety. Geneva (CH): WHO; 2017 [cited 2019 Dec 26]. Available from: http://www.who.int/patientsafety/worldalliance/en/
3. Brasil. Agência Nacional de Vigilância Sanitária (ANVISA). Boletim segurança do paciente e qualidade em serviços de saúde nº 15: incidentes relacionados à assistência à saúde. Brasília, DF(BR): Anvisa; 2017 [cited 2020 Jan 15]. Available from: https://www20.anvisa.gov.br/segurancadopaciente/index.php/publicacoes/item/boletim-seguranca-do-paciente-e-qualidade-em-servicos-de-saude-n-15-incidentes-relacionados-a-assistencia-a-saude-2016
4. Reis GAX, Hayakawa LY, Murassaki ACY, Matsuda LM, Gabriel CS, Oliveira MLF. Nurse manager perceptions of patient safety strategy implementation. Texto Contexto Enferm [Internet]. 2017 [cited 2020 Mar 11];26(2):e00340016. Available from: https://doi.org/10.1590/0104-07072017000340016
5. Brasil. Ministério da Saúde. Portaria nº 529/2013, 1 de abril de 2013: institui o Programa Nacional de Segurança do Paciente (PNSP). Diário Oficial da União; 2013 [cited 2019 Nov 15]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2013/prt0529_01_04_2013.html
6. Brasil. Agência Nacional de Vigilância Sanitária (ANVISA). Resolução da Diretoria Colegiada da ANVISA.RDC nº 36 de 35 de julho de 2013: institui ações para a segurança do paciente em serviços de saúde e dá outras providências. Diário Oficial da União, 2013 [cited 2020 Jan 15]. Available from:http://bvsms.saude.gov.br/bvs/saudelegis/anvisa/2013/rdc0036_25_07_2013.html

7. Garzin ACA, Melleiro MM. Safety in the training of health professionals. Cienc Cuid Saude [Internet]. 2019 [cited 2019 Nov 16];18(4):e45780. Available from: https://doi.org/10.4025/cienccuidsaude.v18i4.45780

8. Oliveira JLC, Matsuda LM. Benefits and difficulties in the implementation of hospital accreditation: The voice of quality managers. Esc Anna Nery [Internet]. 2016 [cited 2019 Nov 26];20(1):63-9. Available from: https://doi.org/10.5935/1414-8145.20160009

9. Minuzzi AP, Salum NC, Locks MOH, Amante LN, Matos E. Contributions of healthcare staff to promote patient safety in intensive care. Esc Anna Nery [Internet]. 2016 [cited 2019 Dec 10];20(1):121-9. Available from: https://doi.org/10.5935/1414-8145.20160017

10. Tomazoni A, Rocha PK, Kusahara DM, Souza AIJ, Macedo TR. Evaluation of the patient safety culture in neonatal intensive care. Texto Contexto Enferm [Internet]. 2015 [cited 2019 Dec 22];24(1):161-9. Available from: https://doi.org/10.1590/0104-07072015000490014

11. Costa BC, Ramos D, Gabriel CS, Bernardes A. Patient safety culture: evaluation by nursing professionals. Texto Contexto Enferm [Internet]. 2018 [cited 2019 Dec 16];27(3):e2670016. Available from: https://doi.org/10.1590/0104-070720180002670016

12. Mello JF, Barbosa SFF. Patient safety culture in an intensive care unit: the perspective of the nursing team. Rev Eletr Enf [Internet]. 2017. [cited 2019 Oct 28];19:a07. Available from: https://doi.org/10.5216/ree.v19.38760

13. Andrade LEL, Lopes JM, Filho MCMS, Júnior RFV, Farias LPC, Santos CCM, et al. Patient safety culture in three Brazilian hospitals with different types of management. Ciênc Saúde Coletiva [Internet]. 2018 [cited 2020 July 17];23(1):161-72. Available from: https://doi.org/10.1590/1413-81232018231.24392015

14. Andrade LEL, Melo LOM, Silva IG, Souza RM, Lima ALB, Freitas MR, et al. Adaptation and validation of the Hospital Survey on Patient Safety Culture in an electronic Brazilian version. Epidemiol Serv Saude [Internet]. 2017 [cited 2019 Nov 22]; 6(3):455-68. Available from: https://doi.org/10.5123/s1679-49742017000300004

15. Sorra JS, Nieva VF. Hospital survey on patient safety culture. Agency for Healthcare Research and Quality [Internet]. 2004 [cited 2019 Sept 13]. Available from: http://www.ahrq.gov/professionals/qualitypatientsafety/patientsafetyculture/hospital/userguide/hospcult.pdf

16. Notaro KAM, Corrêa AR, Tomazoni A, Rocha PK, Manzo BF. Safety culture of multidisciplinary teams from neonatal intensive care units of public hospitals. Rev Latino-Am Enfermagem [Internet]. 2019 [cited 2020 Apr 21];27:e3167. Available from: https://doi.org/10.1590/1518-8345.2849.316

17. Silva GM, Lima MVM, Araripe MC, Vasconcelos SP, Opitz SP, Laporta GZ. Evaluation of the patient safety culture in the Western Amazon. J Hum Growth Dev [Internet]. 2018 [cited 2020 July 28];28(3):307-15. Available from: https://doi.org/10.7322/jhgd.152192

18. Macedo TR, Rocha PK, Tomazoni A, Souza S, Anders JC, Davis K. The culture of patient safety from the perspective of the pediatric emergency nursing team. Rev Esc Enferm USP [Internet]. 2016 [cited 2019 Nov 29];50(5):756-62. Available from: https://doi.org/10.1590/S0080-623420160000600007

19. Goulart BF, Camelo SHH, Simões ALA, Chaves LDP. Teamwork in a coronary care unit: facilitating and hindering aspects. Rev Esc Enferm USP [Internet]. 2016 [cited 2020 Jan 15];50(3):482-9. Available from: https://doi.org/10.1590/S0080-623420160000400015

20. Famalaro T, Yount ND, Burns WBMA, Flashner EMHA, Liu H, Sorra J. Hospital survey on patient safety culture 2016: user comparative data base report. Agency for Health care Research and Quality [Internet]. 2016. [cited 2019 Dec 27]. Available from: https://psnet.ahrq.gov/issue/hospital-survey-patient-safety-culture-2016-user-comparative-database-report

21. Minuzzi AP, Salum NC, Locks MOH. Assessment of patient safety culture in intensive care from the health team's perspective. Texto Contexto Enferm [Internet]. 2016 [cited 2020 May 16];25(2):e1610015. Available from: https://doi.org/10.1590/0104-07072016001610015

22. Moreira FTLS, Callou RCM, Albuquerque GA, Oliveira RM. Effective communication strategies for managing disruptive behaviors and promoting patient safety. Rev Gaúcha Enferm [Internet]. 2019 [cited 2020 Feb 20];40(Spe):e20180308. Available from: https://doi.org/10.1590/1983-1447.2019.20180308

23. Marc TE. An organizational learning framework for patient safety. Am J Med Qual [Internet]. 2017 [cited 2020 Apr 21];32(2):148-55. Available from: https://doi.org/10.1177/1062860616632295

24. Siman AG, Cunha SGS, Brito MJM. The practice of reporting adverse events in a teaching hospital. Rev Esc Enferm USP [Internet]. 2017 [cited 2020 Apr 21];51:e03243. Available from: https://doi.org/10.1590/S1980-220X2016045503243

25. Agency for Healthcare Reasearch and Quality (AHRQ). Making health care safer II: an updated critical analysis of the evidence for patient safety practices. [Internet]. [cited 2019 Oct 24]. Available from: http://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/evidence-based-reports/services/quality/ptsafetyII-full.pdf

NOTES

ORIGIN OF THE ARTICLE

Extracted from the dissertation - Patient safety culture in public teaching hospitals: Assessment by the Nursing team, presented to the Graduate Program in Nursing, *Universidade Estadual de Maringá*, in 2020.

CONTRIBUTION OF AUTHORITY

Study design: Viana KE.
Data collection: Viana KE.
Data analysis and interpretation: Viana KE, Ferreira AMD, Reis GAX, Souza VS.
Discussion of the results: Viana KE, Ferreira AMD, Reis GAX, Souza VS.
Writing and/or critical review of the content: Viana KE, Ferreira AMD, Reis GAX, Souza VS, Marcon SS, Matsuda LM.
Review and final approval of the final version: Marcon SS, Matsuda LM.

ACKNOWLEDGMENT

To the hospitals and to their Nursing team workers.

APPROVAL OF ETHICS COMMITTEE IN RESEARCH

Approved by the Ethics Committee in Research with Human Beings of the of *Universidade Estadual de Maringá*, under opinion No.3,480,841/2019, and Certificate of Presentation for Ethical Appreciation No. 12854419.2.0000.0104.

CONFLICT OF INTEREST

There is no conflict of interests.

EDITORS

HISTORICAL

Received: June 10, 2020.
Approved: November 10, 2020.

CORRESPONDING AUTHORS

Keila Ellen Viana
keilaellen@gmail.com