REVISTA ONLINE DE PESQUISA

CUIDADO É FUNDAMENTAL

Universidade Federal do Estado do Rio de Janeiro • Escola de Enfermagem Alfredo Pinto

RESEARCH

DOI: 10.9789/2175-5361.rpcfo.v12.8521

ADVERSE EVENT NOTIFICATION ANALYSIS THROUGH PATIENT SAFETY CULTURE RESEARCH

Análise da notificação de eventos adversos através da pesquisa de cultura de segurança do paciente

Análisis de la notificación de eventos adversos a través de la investigación de cultura de seguridad del paciente

Roberta Flecher Barbosa Teodoro[1], Alexandre Sousa da Silva[2], Mônica de Almeida Carreiro[3], Rafael de Lima Bilio[4], Danielle Galdino de Paula[5]

How to cite this article:
Teodoro RFB, Silva AS, Carreiro MA, Bilio RL, Paula DG. Adverse event notification analysis through patient safety culture research. Rev Fun Care Online. 2020 jan/dez; 12:463-470. DOI: http://dx.doi.org/10.9789/2175-5361.rpcfo.v12.8521.

ABSTRACT

Objective: To evaluate the patient's safety culture allows hospitals to identify and manage relevant safety issues preventively through their work routines. **Method:** A quantitative, transversal and descriptive study, carried out in 2017 at the Adult Intensive Care Unit in a private hospital, located in Niterói / RJ. The population were medical professionals and nursing staff. Statistical analysis was conducted using program R, with the Rcmdr interface. **Results:** Patient Safety Culture Survey questions about event notification applied to 97 professionals had a response rate of 85.6%, corresponding to 83 professionals. Less than 45% of respondents reported an error, deception, or failure, affecting the patient, 59.0% did not file reports in the last 12 months prior to the survey, and there was no significant difference in the amount of notifications regardless of professional category or level of education. **Discussion**: Those with longer hospital time and with more time in that intensive therapy were more likely to file reports. There was no correlation between the number of reports filed with the time in profession and the workload. Conclusion: With regard to the awareness of the need to report adverse events, the analysis performed contributed to the improvement of patient safety.

1 Pharmacist, Fluminense Federal University. Master's degree from the Federal University of Rio de Janeiro State. Rio de Janeiro

2 Statistician, Paulista State University Júlio de Mesquita Filho. PhD in Statistics from the Federal University of Rio de Janeiro. Assistant teacher. Federal University of Rio de Janeiro State.

3 Nursing and Obstetrics, Federal University of the State of Rio de Janeiro. PhD in Nursing from the Federal University of Rio de Janeiro. Lecturer in the Postgraduate Program in Health and Technology in Hospital Space - Professional Master. Federal University of Rio de Janeiro State.

4 Pedagogy, the Federal University of the State of Rio de Janeiro, PhD in Education at the Fluminense Federal University. Teacher. Municipal Secretariat of Education of Rio de Janeiro.

5 Nursing, Federal University of Rio de Janeiro State, Doctorate in Nursing, Federal University of Rio de Janeiro. Assistant teacher. Federal University of Rio de Janeiro State.

Descriptors: Patient safety; Culture; Intensive care unit; Nursing; Notification of adverse events.

RESUMO

Objetivo: a avaliação da cultura de segurança do paciente permite aos hospitais identificar e gerir prospectivamente questões relevantes de segurança em suas rotinas de trabalho. **Método:** estudo quantitativo, transversal e descritivo, ocorrida no ano de 2017 na Unidade de Terapia Intensiva Adulta em um hospital privado, localizado em Niterói/RJ. A população foram os profissionais médicos e equipe de enfermagem, utilizando análise estatística por meio de programa R, com a interface Rcmdr. **Resultados:** baseados nas respostas às perguntas sobre notificação de eventos aplicada com a Pesquisa de Cultura de Segurança do Paciente a 97 profissionais, com uma taxa de resposta de 85,6%, correspondendo a 83 profissionais. Menos de 45% dos participantes da pesquisa sempre notificam um erro, engano ou falha, que afete ou não o paciente, 59,0% não fizeram nenhuma notificação nos últimos 12 meses antecedentes à pesquisa e não houve diferença significativa na quantidade de notificação que destacasse uma categoria profissional, graduados ou não. **Discussão:** houve maior adesão à notificação de eventos pelos com maior tempo de hospital e com maior tempo naquela terapia intensiva. Não se encontrou correlação do número de notificações relatadas com o tempo de profissão e com a carga horária de trabalho. **Conclusão:** no que tange à conscientização de incrementar a adesão à notificação de eventos, a análise realizada contribuiu para a melhoria da segurança do paciente.

Descritores: Segurança do paciente; Cultura; Unidade de terapia intensiva; Enfermagem; Notificação de eventos adversos.

RESUMÉN

Objetivo: la evaluación de la cultura de seguridad del paciente permite a los hospitales identificar y gestionar prospectivamente cuestiones relevantes de seguridad en sus rutinas de trabajo. **Método:** estudio cuantitativo, transversal y descriptivo, ocurrido en el año 2017 en la Unidad de Terapia Intensiva Adulta en un hospital privado, ubicado en Niterói / RJ. La población fueron los profesionales médicos y equipo de enfermería, utilizando análisis estadístico por medio del programa R, con la interfaz Rcmdr. **Resultados:** basados en las respuestas a las preguntas sobre notificación de eventos aplicada con la Encuesta de Cultura de Seguridad del Paciente a 97 profesionales, con una tasa de respuesta del 85,6%, correspondiendo a 83 profesionales. En la mayoría de los casos, la mayoría de las personas que sufren de la enfermedad de Alzheimer, una categoría profesional, graduados o no. **Discusión:** hubo mayor adhesión a la notificación de eventos por los con mayor tiempo de hospital y con mayor tiempo en aquella terapia intensiva. No se encontró correlación del número de notificaciones relatadas con el tiempo de profesión y con la carga horaria de trabajo. **Conclusión:** en lo que concierne a la concientización de incrementar la adhesión a la notificación de eventos, el análisis realizado contribuyó a la mejora de la seguridad del paciente.

Palavras clave: Seguridad del paciente; Cultura; Unidad de terapia intensiva; Enfermería; Notificación de eventos adversos.

INTRODUCTION

Patient safety is one of the pillars that sustain the quality of health services provided. However, there is a large amount of errors and adverse events that occur in health services, which usually receive a lot of attention from the media. Patient safety is therefore defined as the reduction to the minimum acceptable the risk of unnecessary harm during health care. It includes strategies that seek to avoid, prevent and minimize the impact of adverse events resulting from health care practices associated with care.[1]

Safety culture in this context has been identified as having a major impact on improving the quality of health care and is related to adverse event rates and mortality. Thus, initiatives to improve health care have been implemented, both in primary and hospital care, focused on professionals and culture change, aiming to promote safe care.[2]

The risks of adverse events in health care exist in different settings where health care is offered. Among these different environments, the Intensive Care Unit (ICU) stands out, which, due to its characteristics, is considered a high-risk care setting. This unit provides intensive care, i.e. it must be provided quickly, involves many procedures, produces a large volume of information, is performed by a large and varied number of professionals who, in the face of the severity of patient condition, work under a severe stress because they deal directly with life and death situations when decisions must be made quickly.[3]

There is a considerable number of research instruments for assessing patient safety culture that can be analyzed quantitatively through research or qualitatively by anthropological / ethnographic methods. The latter includes questionnaires designed to guide reflection and dialogue in groups of people, such as: "Strategies for Leadership: An Organizational Approach to Patient Safety" (SLOAPS), the "Checklist for Assessing Institutional Resilience" (CAIR) and the Manchester Patient Safety Framework. In the studies presented, the most widely used instruments for quantitative analysis were the "Hospital Survey on Patient Safety Culture - HSPSC"; the "Safety Attitudes Questionare" - SAQ; the "Culture of Safety Survey" - CSS; and the Veterans Administration Patient Safety Culture Questionnaire - VHA PSCQ.[4]

Recognizing the need for a measurement tool to assess the culture of patient safety in healthcare organizations, the Medical Interactions Task Force, the Quality Interagency Coordination Task Force - QuIC sponsored the hospital research centered on the safety culture of the patient. Funded by the Agency for Health Research and Quality (AHRQ), the Hospital Survey on Patient Safety Culture (HSOPSC) is a private research organization under contract with AHRQ.[5]

The HSOPSC has been translated into Portuguese and adapted for use in Brazil as the measurement of patient safety culture is an emerging practice in Brazil. The dimension related to the reporting of events was marked by the target population as non-hegemonic in Brazilian hospitals. Although it has been reported that some hospitals in Brazil already adopt this practice, reporting events (accidents, incidents, failures or errors) is not yet a widespread practice. The components of the original instrument relate to the dimensions of safety culture in the Brazilian hospital

context. No publications were found on findings of cross-cultural adaptation studies and psychometric assessment of instruments that evaluate safety culture in the hospital context translated into Portuguese and used in Brazil.[6] Thus, a study of HSOPSC's cross-cultural adaptation into Portuguese and its use in the Brazilian hospital context with validation of translated and semantic content was conducted considering the participation of specialists. The estimated internal consistency for the instrument as a whole was very good and generally satisfactory for most of the 12 dimensions that make up the original model.[7]

In response to growing concerns about patient safety, the United Kingdom National Health Service, the Joint Commission for Accreditation of Healthcare Organizations, the Agency for Healthcare Research and Quality, and the United States National Quality Forum, have proposed that healthcare institutions should adopt Safety Culture models.[8] In the same vein, Accreditation Canada International - ACI also requires institutions that are members of this hospital accreditation model to conduct culture research on patient safety model.

In this context, this article aims to analyze the results of the Patient Safety Culture Survey applied to physicians, nurses and nursing technicians of a 25-bed general intensive care unit of a large private hospital in Niterói - RJ, with focus on incident reporting and participants' data. Notification of patient incidents is good practice and is required under hospital certification methodologies as they provide data for the implementation of improvements and prevention of new occurrences.

This article focuses on relationships, when found, between the responses and the profile of professionals who participated in the research with the purpose of understanding the importance of reporting incidents and that they are a part of the patient safety culture and can be used as a care improvement tool.

METHODOLOGY

Study design

This is a quantitative, cross-sectional and descriptive study survey. Data collection was performed in the adult intensive care unit of a large private hospital in Niterói - RJ in February 2017. This hospital is a reference in the city, with open emergency that has 257 beds in various clinical specialties including transplantation, cardiology and surgery, as well as 25 adult intensive care beds.

During the data collection period, there were approximately 67 nursing professionals, 19 were nurses, 48 nursing technicians and 30 doctors. The sample consisted of professionals from the nursing and medical team working in adult intensive care who met the inclusion criteria of the study: a) Working for at least one month in the sector; b) working at least 12 hours per week in the sector and c) agree to participate in the study. Employees on vacation or leave during the period were excluded. According to the criteria, 18 assisting nurses, 35 nursing technicians and assistants, and 30 physicians participated in the research, thus totaling 83 participants.

As a data collection instrument, the Survey on Patient Safety Culture Hospital (HSOPSC) was validated and culturally adapted to the reality of Brazilian hospitals (REIS, 2013). Most items are answered on a 5-point scale (Likert-scale type) reflecting the agreement rate: from "strongly disagree" (1) to "strongly agree" (5), with a neutral category "neither "(3). Other items are answered using a 5-point frequency scale: from "never" (1) to "always" (5). The two outcome variables were answered as follows: a) patient safety degree - measured by a 5-point scale from "excellent" (1) to "failing" (5); and b) number of events reported: how many event reports you have written and delivered in the last 12 months - response categories: "none", "1-2 events", "3-5 events", "6 to 10 events" and "11 to 20 events".

For data collection in this study, the hospital 's Quality Management department initially contacted the nursing and medical managers of the adult intensive care unit to disclose the objectives and purpose of the research, making them aware of the work to be done. Then, the professionals were approached in their work environment, when they were available to participate in the study. The instrument to be answered was inserted in Google Forms and the link was sent to the leaders to disseminate to their teams by email or WhatsApp application, with the pre-established maximum deadline.

Statistical analysis

After collection, the data was organized in an electronic database that was exported to the Microsoft® Excel Program and the processing, graphs, and tests for analysis of data on event notification and responses to general information questions were performed using the statistical program R x64 3.3.3, with Rcmdr interface. All survey participants were guaranteed anonymity.

We sought to link the answers to the questions related to the notification of events with the sociodemographic variables, those related to the position, the workload and the academic profile, career duration in that hospital unit and the intensive care unit. In addition to the exploratory analysis, hypothesis tests were performed to decide if there is correlation of the data and for that, the Spearman and Pearson correlation was used. The level of statistical significance considered was 0.05

Ethical aspects

The study aims to meet the prerequisites of the Biostatistics and Epidemiology discipline of the Professional Master's of Management in Health and Technology in

Hospital Space at the Federal State University of Rio de Janeiro - UNIRIO, approved by the Research Ethics Committee of the State University of Rio de Janeiro - UNIRIO, according to Resolution No. 466/12, and approved under Opinion No. 2395 .858 and Certificate of Ethical Appreciation (CAAE) No. 75475317.0.0000.5285.

RESULTS

The results obtained were based on the HSOPSC questionnaire validated and culturally adapted to the reality of Brazilian hospitals.[7] This instrument is widely used in several countries around the world, at different stages of development, seeking to understand the degree of assimilation and dissemination of patient safety as a dimension of quality of health care and its appreciation in the organizational culture. It questions the respondents' opinion on safety-related key points - the organization's values, beliefs and norms, adverse event reporting, communication, leadership and management, and takes about 15 minutes to complete. The HSOPSC covers 12 dimensions or factors of multi-item scale of safety culture. It contains 50 items in total; 44 are related to specific security culture issues and 6 items are related to personal information. There are 3 dimensions related to the hospital, 7 dimensions related to the work unit within the hospital, and two outcome variables.

Table 1 presents the sociodemographic characteristics of the respondents. The subjects of the sample are 35 technicians (42.2%), 18 nurses (21.7%) and 30 doctors (36.1%). Regarding working time, most spent between 1 and 5 years in the hospital (55.4%) and in the ICU (51.8%), with workload ranging from 20 to 59h weekly (83.2%).

Table 1 - Sociodemographic characteristics of nursing professionals and physicians of the adult ICU of a large private hospital of Niterói-RJ, Brazil, 2017

	Doctor n(%)	Nurse n(%)	Nursing tecnician n(%)	Total n(%)
TIME AT HOSPITAL (years)				
<1	3(3,6)	3(3,6)	3(3,6)	9(10,8)
1 to 5	17(20,5)	10(12,0)	19(22,9)	46(55,4)
6 to 10	4(4,8)	2(2,4)	8(9,6)	14(16,9)
11 to 15	6(7,2)	3(3,6)	2(2,4)	11(13,2)
16 to 20	0(0)	0(0)	0(0)	0(0)
>20	0(0)	0(0)	3(3,6)	3(3,6)
TIME AT ADUL IC (years)				
<1	4(4,8)	3(3,6)	3(3,6)	10(12,0)
1 to 5	16(19,3)	9(10,8)	18(21,7)	43(51,8)
6 to 10	4(4,8)	3(3,6)	6(7,2)	13(15,7)
11 to 15	6(7,2)	3(3,6)	4(4,8)	13(15,7)
16 to 20	0(0)	0(0)	2(2,4)	2(2,4)
>20	0(0)	0(0)	2(2,4)	2(2,4)
WORKLOAD AT HOSPITAL (Hrs/week)				
<20	4(4,8)			4(4,8)
20 to 39	23(27,7)	3(3,6)	6(7,2)	32(38,6)
40 to 59	2(2,4)	14(16,9)	21(25,3)	37(44,6)
60 to 79	1(1,2)	0(0)	7(8,4)	8(9,6)
80 to 99	0(0)	0(0)	1(1,2)	1(1,2)
>100	0(0)	1(1,2)	0(0)	1(1,2)

DOI: 10.9789/2175-5361.rpcfo.v12.8521
Adverse event notification analysis through patient safety ...

	Doctor n(%)	Nurse n(%)	Nursing tecnician n(%)	Total n(%)
TIME IN PROFESSION (years)				
<1	1(1,2)			1(1,2)
1 to 5	14(16,9)	7(8,4)	6(7,2)	27(32,5)
6 to 10	5(6,0)	7(8,4)	10(12,0)	22(26,5)
11 to 15	6(7,2)	1(1,2)	9(10,8)	16(19,3)
16 to 20	3(3,6)	3(3,6)	7(8,4)	13(15,7)
>20	1(1,2)	0(0)	3(3,6)	4(4,8)

Figure 1A shows the maximum number of notifications in the last 12 months among different professionals in an intensive care unit. No significant differences (p = 0.1127) were observed among doctors, nurses and nursing technicians in terms of maximum number of event reports in that ICU. There was also no significant difference (p = 0.1185) in the maximum number of notifications between undergraduate and graduate professionals (Figure 1B).

Figure 1 - Maximum notifications in the last 12 months by position and by educational level

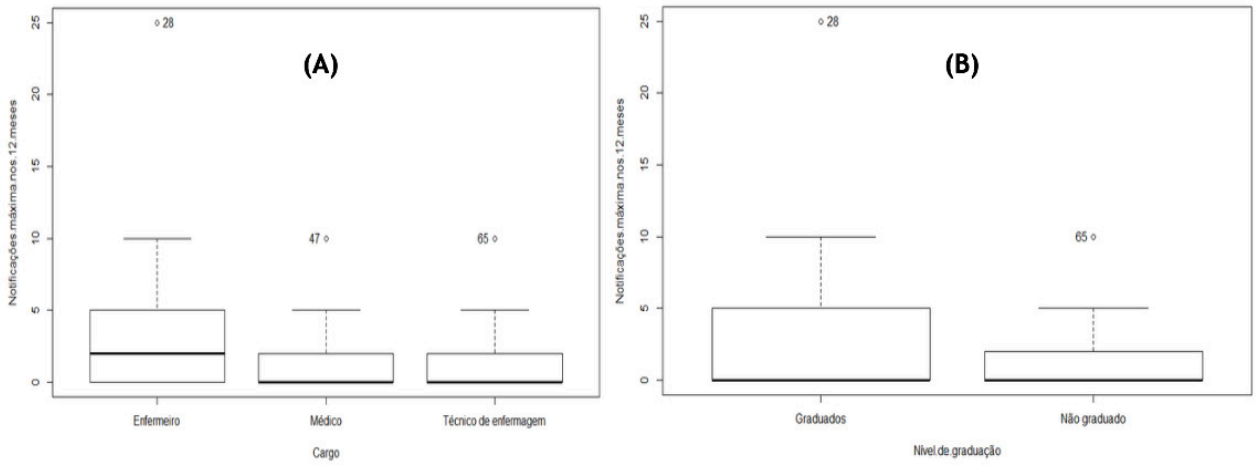

Table 2 presents the responses regarding the frequency of reporting. A mistake or failure that may affect the patient is always or almost always reported by less than 45% of the research participants and most of them are nursing technicians. On the other hand, at least 26.5% of participants rarely or never reported the error, mistake or failure that was noticed and corrected before affecting the patient.

Table 2 - Questions and answers about the frequency of reported events based on the patient safety culture survey (cross-cultural adaptation of the HSOPSC).

Frequency of reporting	Sometimes n(%)				Rarely/ Never n(%)				Always / Almost always n(%)			
	Doctor	Nurse	Tecnician	Total	Doctor	Nurse	Tecnician	Total	Doctor	Nurse	Tecnician	Total
When an error, mistake or failure happens but is noticed and corrected before affecting the patient.	14	6	7	27 (32,5)	6	6	10	22 (26,5)	10	6	18	34 (40,1)
When an error, mistake or failure occurs but there is no risk of harm to the patient.	10	3	6	19 (22,9)	9	10	6	31 (37,3)	11	5	17	33 (39,8)
When an error, mistake, or failure occurs that could cause harm to the patient but does not cause	12	1	6	19 (22,9)	5	9	13	27 (32,5)	13	8	16	37 (44,6)

Regarding the reporting frequency and positions present in the adult intensive care unit, no differences were noted between the different positions in terms of reporting frequency when failure occurs without risk of harm to patient and the reporting frequency when failure was perceived and corrected before affecting the patient, with respective p-values of 0.217 and 0.199 (Table 3). On the other hand, we found that the professional categories in this intensive care unit differ in terms of frequency of reporting when the failure could cause harm to the patient but did not (p = 0.020). In this case, nursing technicians had the highest frequency of reporting, followed by the doctors and nurses.

Table 3 - Pearson correlation between reporting frequency and intensive care unit position

Variables	X^2	Degrees of liberty	P value
Frequency of notification when failure occurs without risk of harm to the patient x function	5,763	4	0,217
Frequency of notification when failure has been received and corrected before causing harm to the patient x function	6,005	4	0,199
Frequency of notification when the failure can cause damages to the patient but did not cause it x function	10.963	4	0,020

Regarding the number of events reported in the last 12 months prior to the survey, 49 participants (59.0%) did not report them (Table 4).

Table 4 - Number of events reported in the last 12 months based on the patient safety culture survey (HSOPSC cross-cultural adaptation) applied to nursing professionals and physicians of the adult ICU of a large private hospital of Niterói-RJ, Brazil, 2017

Number of reported events	Reports n(%)
None	49(59,0)
1 to 2	19(22,9)
3 to 5	11(13,2)
6 to 10	3(3,6)
>20	1(1,2)

Table 5 shows the correlation between the number of notification reports and different variables. The maximum time at intensive care unit (p <0.00001) and the duration of contract at the hospital (p <0.0001) among the different professionals showed a positive correlation with the number of notifications, indicating that the longer the professional works at the ICU as well as in the hospital, the greater the adherence to the patient safety culture. We also observed that the maximum time of profession and the maximum workload in the ICU did not correlate with the number of reports.

Table 5 - Spearman correlation between number of reports and different variables in an adult intensive care unit

Variables	Value Rho	P value
Number of reports x maximum workload	-0.395	0,7222
Number of Reports x Maximum Time in Profession	0.195	0,0770
Number of Reports x Maximum Contract Time	0,4124	0,0001
Number of reports x maximum time in unit	0,4612	0,00001

To represent the frequency of words in patient safety comments, errors, or event notification at the hospital, we used an application-produced word cloud available at http://www.wordle.net/create. In the word cloud, the size of the letters depends on the frequency of the word. The larger the word size, the more often the word was written in the comment, the last step of the search. All the mentioned words are presented in this cloud, with no minimum occurrence frequency criterion (Figure 2). From the word cloud produced, we observed that the term patient safety was mentioned quite frequently in the comments, with the first term - safety - focusing on the main research theme, patient safety, and the second term - patient - also involved in the main theme but especially in errors and notifications, the more specific aspects that detail the main subject. Frequent words with clear relationship between them are also perceived, for example: hospital, patients, professionals, employees, pharmacy and technicians.

Figure 2 - Word Cloud of comments on patient safety, errors, or notification of hospital events. Source: http://www.wordle.net/create.[9]

DISCUSSION

Analyzing the data found, although some professionals have graduation and this would supposedly contribute to a better understanding of the notification culture and its relationship with patient safety, no significant difference was found (p = 0.1185) in terms of maximum number

of notifications between graduated and non-graduated professionals (Figure 1B), indicating the need for constant training and awareness of the hospital quality process in Adult Intensive Care Units.

The notification system used at this hospital requires username and password entry, and to maintain anonymity, standard login and password have been created so that all employees can notify without identifying themselves. But still, there may be some suspicion regarding confidentiality, and this will interfere with the frequency of notification.

According to Souz[a10], a low number of adverse event notifications may be related to the computerized system adopted by the institution, where the professionals need to identify themselves when reporting the error / adverse event. A similar research conducted in a large hospital in southern Brazil investigated the reports of adverse events. It found that a reporting system where the reporting professional needs to be identified can lead to underreporting. It also suggested that the low number of adverse event notifications may be related to the professionals' perception regarding punitive responses to their failures.

Through the final comments of the research, it is clear that patient safety is a major concern in health services, including the hospital, and applies to all patients. And that professionals and employees are a part of this concept, especially the technicians (assumed to be nursing technicians) and the pharmacists.

FINAL CONSIDERATIONS / CONCLUSION

In the context of this study, these recommendations revealed weaknesses in some aspects of safety culture in the institutions where the study was implemented. The number of actions suggested in the dimensions 'general perception of safety' and 'support of hospital management for patient safety' stands out. The implementation of these actions, with subsequent analysis of the different dimensions of the instrument, allows to measure their impact, translating into an important instrument in the evaluation of safety culture. Studies of this nature point to the need for further research with the use of this instrument, particularly in Brazil, in order to better evaluate it and, if necessary, make modifications, considering that it was created in the United States, based on its culture, reality and specific needs.

The results reveal that the attitude of notifying patient events, although important for the patient safety culture, is still quite incipient in this adult intensive care unit, due to the low adherence of medical and nursing professionals. These results lead us to reflect that professionals do not identify the notification of error, mistake, failure as an attitude to the culture of patient safety. They may not understand the importance of notification in promoting improvements to what is identified as the cause of that event. Or they suffer severe punishment from the leadership and the organization due to the lack of a fair culture that analyzes and distinguishes error from violation. Leadership can also positively or negatively influence the adherence because it should stimulate the use of the tool to implement improvements, but it can also punish the employees erroneously and thus generate a climate of insecurity and fear.

Based on the reflections, we emphasize that the quality of patient care results from safe care, and for this, an established safety culture is required. This culture involves the commitment of the institution and its managers to identify the need for the safety culture and establish it as the guiding axis of their organization, as well as to engage with day to day situations and seek to identify the difficulties and challenges that the care provider faces daily. Therefore, when the bonds of trust are established, needs and errors are more clearly exposed by professionals and the institution can intervene in work processes and continuing education, empowering professionals to ensure a safety culture and safer care.

In this context, the need to improve event notification once again is justified by the establishment of the patient safety culture and improvements that can be implemented for better assistance.

This research in the next editions may include other care professionals who work in intensive care such as physiotherapists, pharmacists, nutritionists, psychologists and dentists. And the analysis can be expanded to all issues of the Patient Safety Culture Survey as well as other hospital care units.

FINANCIAL SUPPORT

Funding by the Rio de Janeiro State Research Support Foundation - FAPERJ - Notice n.22 / 2016.

REFERENCES

1. Wegner W, Pedro ENR. A segurança do paciente nas circunstâncias de cuidado: prevenção de eventos adversos na hospitalização infantil. Rev. Latino-Am. Enfermagem [online]. 2012. 20(3): 427-434. Disponível em: http://dx.doi.org/10.1590/S0104-11692012000300002
2. Baratto MAM, Pasa TS, Cervo AS, Dalmolin GL, Pedro CMP, Tânia Solange Bosi de Souza Magnago TSBS. Cultura de segurança do paciente no cenário hospitalar: Revisão integrativa. Rev. enferm. UFPE on line. 2016. 10(11): 4126-4136. DOI: 10.5205/reuol.9667-87805-1-ED1010201622
3. Mello JF, Barbosa SFF. Cultura de segurança do paciente em terapia intensiva: recomendações da enfermagem. Texto Contexto. 2013. 22(4): 1124-1133. Disponível em: http://dx.doi.org/10.1590/S0104-07072013000400031
4. Baratto, MAM. Cultura de segurança do paciente: percepções e atitudes dos trabalhadores nas instituições hospitalares de Santa Maria [dissertação]. Rio Grande do Sul: Universidade Feral de Santa Maria; 2015
5. Sorra JS, Nieva VF. Hospital survey on patient safety culture. Rockville: Agency for Healthcare Research and Quality; 2004.

6. Reis CT, Languardia J, Martins M. Adaptação transcultural da versão brasileira do Hospital Survey on Patient Safety Culture: etapa inicial. Cad. Saúde Pública. 2012. 28(11): 2199-2210. Disponível em: http://dx.doi.org/10.1590/S0102-311X2012001100019
7. Reis CT. A cultura de segurança do paciente: validação de um instrumento de mensuração para o contexto hospitalar brasileiro [tese]. Rio de Janeiro: Escola Nacional de Saúde Pública Sergio Arouca; 2013.
8. Rigobello MCG. Carvalho REFL, Cassiani SHB, Galon T, Capucho HC, de Deus NN. Clima de segurança do paciente: percepção dos profissionais de enfermagem, Acta paul. enferm. 2012. 25(5): 728-735. Disponível em: http://dx.doi.org/10.1590/S0103-21002012000500013
9. Wordle™ [Internet]. Disponível em http://www.wordle.net/create.
10. Souza VS, Kawamoto AMorello, Oliveira JLC, Tonini NS, Fernandes LM, Nicola AL. Erros e eventos adversos a interface com a cultura de segurança dos profissionais de saúde. Cogitare Enferm. 2015. 20(3): 475-482. Disponível em: http://dx.doi.org/10.5380/ce.v20i3.40687

Received in: 06/03/2019
Required revisions:26/03/2019
Approved in: 22/08/2019
Published in: 30/03/2020

Corresponding author
Roberta Flecher Barbosa Teodoro
Address: Universidade Federal do Estado do Rio de Janeiro
Avenida Pasteur, 296, Urca
Rio de Janeiro/RJ, Brazil
Zip code: 22290-240
E-mail address: robertaflecher@gmail.com
Telephone number: +55 (21) 2542-6450

Disclosure: The authors claim to have no conflict of interest.