http://dx.doi.org/10.1590/0104-070720180002670016

PATIENT SAFETY CULTURE: EVALUATION BY NURSING PROFESSIONALS[1]

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[1] Article extracted from the dissertation - Patient safety culture from the point of view of the nursing team in hospital services, presented *Programa de Pós-Graduação em Enfermagem Fundamenta, Escola de Enfermagem de Ribeirão Preto* (EERP), *Universidade de* São Paulo (USP), in 2014.

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ABSTRACT

Objective: to evaluate the patient safety culture of nursing teams in the hospital context. **Method**: from a nursing point of view, a cross-sectional quantitative study, of the survey type, was performed. The data collection occurred between June and July 2013. The questionnaire Hospital Survey on Patient Safety Culture was used, answered by 437 professionals of the nursing team, with a response rate of 100%.

Results: among the twelve dimensions evaluated, only six had positive response rates greater than 50%, being the frequency of event reporting (61.4%), organizational learning - continuous improvement (60.5%), non-punitive responses to errors (58%), teamwork within the unit (57.1%), shift/orderly and transfers (53.1%), and feedback of information and communication about error (51.8%).

Conclusion: in order to reach a positive safety culture, improvement actions involving management and leadership are required: general perception of safety; expectations about the supervisor/boss and actions that promote safety; the opening of communication; support of hospital management for patient safety and teamwork between units.

DESCRIPTORS: Patient Safety. Nursing. Hospital services. Quality of health care.

CULTURA DE SEGURANÇA DO PACIENTE: AVALIAÇÃO PELOS PROFISSIONAIS DE ENFERMAGEM

RESUMO

Objetivo: avaliar a cultura de segurança do paciente das equipes de enfermagem no contexto hospitalar.

Método: sob o ponto de vista da enfermagem foi realizado um estudo quantitativo, tipo *survey*, transversal. A coleta de dados ocorreu entre junho e julho de 2013. Foi utilizado o questionário *Hospital Survey on Patient Safety Culture*, respondido por 437 profissionais da equipe de enfermagem, com taxa de resposta de 100%.

Resultados: entre as doze dimensões avaliadas, apenas seis apresentaram taxas de respostas positivas maiores que 50%, sendo frequência de relato de eventos (61,4%), aprendizado organizacional - melhoria contínua (60,5%), respostas não punitivas aos erros (58%), trabalho em equipe dentro da unidade (57,1%), passagem de plantão/turnos e transferências (53,1%) e retorno da informação e comunicação sobre erro (51,8%).

Conclusão: para o alcance de cultura de segurança positiva são necessárias ações de melhoria que envolvam a gestão e as chefias no que se refere: percepção geral da segurança; expectativas sobre o supervisor/chefe e ações promotoras da segurança; abertura da comunicação; apoio da gestão hospitalar para a segurança do paciente e trabalho em equipe entre as unidades.

DESCRITORES: Segurança do paciente. Enfermagem. Serviços hospitalares. Qualidade da assistência à saúde.

CULTURA DE SEGURIDAD PARA EL PACIENTE: EVALUACIÓN REALIZADA POR LOS PROFESIONALES DE ENFERMERÍA

REUMEN

Objetivo: evaluar la cultura de seguridad del paciente de los equipos de enfermería en el contexto hospitalario.

Método: bajo el punto de vista de la enfermería fue realizado un estudio cuantitativo, tipo *survey* y transversal. La obtención de datos se realizó entre Junio y Julio del 2013. Se usó el cuestionario *Hospital Survey on Patient Safety Culture* que respondido por 437 profesionales del equipo de enfermería y con una taza de respuesta del 100%.

Resultados: entre las doce dimensiones evaluadas apenas seis presentaron tazas de respuestas positivas mayores al 50%, siendo ellas la frecuencia del relato de eventos (61,4%), aprendizaje organizacional - mejora continua (60,5%), respuestas no punitivas a los errores (58%), trabajo en equipo dentro de la unidad (57,1%), pasaje de guardia/turnos y transferencias (53,1%) y proporcionar la información y comunicación sobre el error (51,8%).

Conclusión: para llegar a la cultura de seguridad positiva son necesarias acciones de mejoramiento que incluyan la gestión y las jefaturas en lo que se refiere a la percepción general de la seguridad, expectativas sobre el supervisor/jefe y las acciones promotoras de la seguridad, abertura de la comunicación, apoyo de la gestión hospitalaria para la seguridad del paciente y el trabajo en equipo entre las unidades.

DESCRIPTORES: Seguridad del paciente. Enfermería. Servicios hospitalarios. Cualidad de la asistencia para la salud.

INTRODUCTION

Errors associated with health institutions became a focus in the media, with more emphasis following the publication of the report *To err is human*, from the Institute of Medicine, in 1999, which reported very high numbers of deaths due to care and medical errors.[1] Even though many efforts have been underway since then, a study published in 2013 estimated that deaths associated with preventable damage affect more than 400,000 people a year and about 4 to 8 million people suffer serious harm, which means that, on average, 1,096 deaths occur and 10,949 to 20,918 serious damages occur daily.[2]

The Joint Commission, in 2013, launched its first patient safety goals for hospitals for the following year and currently set targets for 2016, which are: improve patient identification accuracy, improve communication effectiveness among caregivers, improve safety in the use of medicines, reduce the damage associated with clinical alarm systems, minimize the risks of care-associated infections, and identify patient safety risks in hospitals.[3]

In Brazil, also in 2013, the National Patient Safety Program (PNSP), through the Ministry of Health Ordinance No. 529/13 and the Resolution of the Collegiate Board of Directors (RDC) 36/2013, the National Patient Safety Program (PNSP), which aims to contribute to the qualification of health care in all health facilities in the national territory. In addition to this initiative, RDC 36/2013, published by the National Agency of Sanitary Surveillance (Anvisa), aims to improve quality of health services through actions to promote safety and seek continuous quality improvement.[4] Together, they represent the creation of the Patient Safety Nucleus (NSP) in health services through the implementation of the Health Services Patient Safety Plan (PSP).[5]

Given the influence of the technical and organizational processes of the institutions on the professionals, reviewing the work processes is an essential tool for the knowledge of the existing problems and subsequent implementation of barriers to new problems related to security.[6]

Safety culture is the product of individual and group values, attitudes, perceptions, competencies and behavior patterns that determine the commitment, style, and proficiency of managing a healthy and safe organization. Health institutions should be aware of the existence of a low expectations organizational culture characterized by lack of communication, ambiguous or rapid changes that are not communicated to all professionals, incomplete information exchange and lack of information.[7]

Hospital institutions have incorporated it into the culture of patients with the objective of offering excellent care, reducing costs and ensuring satisfaction. When safety is instituted as a cultural process, there is greater professional awareness of the safety culture of the patient and the ethical commitment to risk management to the professional and to the patient.[8-9]

The hospital environment should be safe so that professionals can report the errors, talk about them, analyze them in the situations that preceded them, identify the fragile points of the processes to repair them, discuss improvement strategies[10] and prioritize the confidence-based communication.

The evaluation of the patient's safety culture allows us to recognize potentialities and weaknesses that will guide improvement actions to build a positive and strong culture within health institutions. The nursing team has a large contingent of hospital human resources and, most of the time, is directly responsible for the care, so evaluating the

safety culture of the patient in this population brings important and impacting information to hospital institutions. Therefore, the objective of this study was to evaluate the safety culture of the patient by the nursing team in the hospital context.

METHOD

This is a descriptive, cross-sectional, quantitative approach. It was performed at two hospitals located in the northern state of Paraná, Brazil. As for the characteristics of the institutions, institution A is a public university hospital and has 316 beds. Institution B is a private general hospital of philanthropic character and has 269 beds.

The data collection was performed the institution A in the following sectors: Unit of Medical-Surgical Admission for Men and Women, Infectious Diseases, Surgical Center, Sterilized Material Center, Intensive Care Units, Maternity, Pediatrics, Pediatric Intensive Care Unit, Neonatal Intermediate Care Unit and Neonatal Intensive Care Unit. The sectors selected in institution B were: Clinical Units, Surgical Units, Intensive Care Units, Pediatrics, Maternity, Neonatal and Pediatric Intensive Care Unit, Neonatal Intermediate Care Unit, Surgical Center and Sterilized Material Center.

To calculate the sample of the study, a confidence level of 95% was adopted and performed according to the position held, totaling 282 servers between nursing auxiliaries and technicians and nurses*, 178 professionals from institution A and 104 professionals from institution B. However, the final sample had an effective participation of 437 employees of the institutions, since there were more interested parties than the number calculated in the sample. Although the sample calculation was unique for both institutions, the sampling draw was carried out independently and the other professionals who showed interest in participating were added to the total drawn. It should be noted that from the drawn, all 282 subjects participated in the survey.

The following exclusion criteria were adopted: professionals with less than six months in the institution; professionals who were, during the period of data collection, on vacation, leave or absent from the service; and undergraduate and residency students due to the formation process and absence of employment bond in the institutions. Also, the head nurses of the two institutions were excluded because of their direct relationship with the nursing teams, rather than the actual nursing care given to the patients.

The data collection was performed during the months of June and July 2013, using the Survey on Patient Safety Culture (HSOPSC) questionnaire, developed and made available since 2004 by the Agency for Health Research and Quality (AHRQ). The objective of this survey is to measure the dimensions related to the safety culture, used in several countries of the world and to address the dimensions of safety culture in the individual scope, in the units, and in the hospital scope. The survey was later translated and validated into the Portuguese language.[11-12]

The survey is composed of nine sections that are subdivided into 42 items and covers 12 dimensions, evaluated by the average of each item that composes it, namely: general perception of safety; frequency of event reporting; expectations about the supervisor/boss and actions that promote safety; organizational learning - continuous improvement; teamwork within the units; openness of communication; non-punitive responses to errors; adequacy of professionals; return of information and communication about error; hospital management support for patient safety; teamwork between units; and shift transition and transfers.

The items were analyzed on a five-point Likert scale, whose categories are of agreement degree for the 12 dimensions. Each dimension was evaluated according to the percentage of positive responses, and the percentage obtained by calculating the combination of the two highest categories of response; of each dimension, the two lowest categories indicate negative results concerning culture; the middle category shows neutrality.[11]

The questions related to the number of events reported and the concept given to the institution regarding patient safety by the servers were presented with their relative frequency of responses.

Regarding the evaluation of the frequencies obtained in the dimensions, although the authors of the instrument adopted 75% of positive responses as a cut to interpret the findings as a culture of positive patient safety, this cut was considered arbitrary and it was indicated that the institution responsible for the application and analysis of the answers should define according to their needs. Therefore, when

* In Brazil, nursing is divided into three categories: nurse, nursing technicians and nursing auxiliaries, being the highest level is a nurse, followed by technicians and auxiliaries. Translator's note

considering the reality of hospital institutions and the Brazilian scenario regarding the subject of patient safety, a positive patient safety culture was considered from 50% of positive responses.

The data analysis was done in a descriptive way through the statistical program Statistical Package for Social Sciences (SPSS), version 17.0. The Cronbach's total alpha of dimensions was 0.85.

The study was evaluated and approved by the Research Ethics Committee of the School of Nursing of Ribeirão Preto, University of São Paulo, under the CAAE Protocol number 17533913.8.0000.5393.

RESULTS

Concerning the characteristics of the participants and the professional data, there was a predominance of females (84.7%). Regarding the age group, it is observed that most professionals are in the age range of 21 to 50 years, adding up to 87%. Regarding the scholling level, most of the population of the study has completed higher education (45.1%). However, when analyzing the professional category, there is a predominance of nursing technicians (41.2%). It is also observed that most of the participants work in clinical and surgical hospitalization units for women and men (25.2%), followed by intensive care unit (18.3%), and emergency room (10.8%), according to Table 1.

Among the participants, in 94.7% of the positions and functions performed, there is interaction or direct contact with the patients.

Table 1 - Distribution of participants according to gender, age, current position and working time in the institution. Londrina, PR, Brazil, 2013. (n=437)

Variables	Categories	n (%)	Total N (%)
Gender	Female	370 (84,7%)	437 (100%)
	Masculino	67 (15,3%)	
Age	< 20	6 (1,4%)	437 (100%)
	21-30	134 (30,7%)	
	31-40	114 (26,1%)	
	41-50	132 (30,2%)	
	>51	51 (11,7%)	
Current position	nursing auxiliar	151 (34,6%)	437 (100%)
	nursing technician	180 (41,2%)	
	nurse	106 (24,3%)	
Working time in the institution	< 1 year	79 (18,1%)	437 (100%)
	1 - 5 years	158 (36,2%)	
	5 - 10 years	44 (10,1%)	
	10 - 15 years	43 (9,8%)	
	15 -20 years	52 (11,9%)	
	20 - 25 years	33 (7,6%)	
	25 - 30 years	14 (3,2%)	
	>30 years	14 (3,2%)	

The items with worse ratings in the dimensions, that is, with a percentage of positive responses lower than 33.3%, bring concern: changes in the shift or orderly are problematic for patients (31.8%); the sufficient number of professionals to meet the workload (16.9%); the professionals who consider that their errors, mistakes or failures can be used against them (17.6%); the supervisors who demand the work to be accomplished more quickly when the pressure increases (29.1%); the supervisor/manager does not give enough attention to patient safety problems that occur repeatedly (20.4%); the fact that patient safety is never compromised due to the greater amount of work to be completed (32.5%); the professionals feel free to question the decisions or actions of their superiors (27.5%); professionals who are afraid to question when something is not right (24.5%); professionals who are informed about changes implemented from the event reports (23.3%); and the professionals who feel free to question the decisions or actions of their superiors (26.8%).

Figure 1 shows the percentage of positive responses in relation to the twelve dimensions evaluated by the instrument. The dimension with the fewest positive responses was the Opening of the comunication (36.6%).

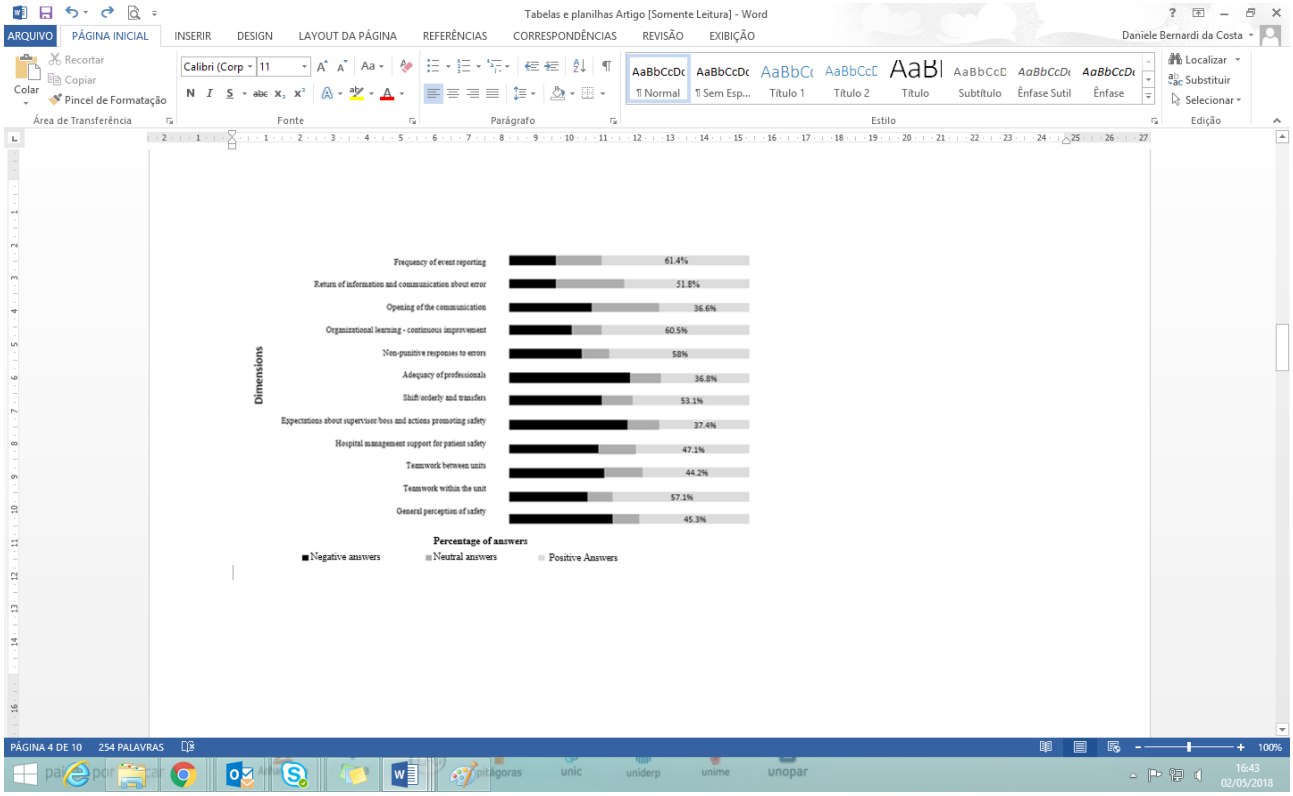

Figure 1- Percentage of positive scores of patient safety culture dimensions of the two hospitals. Londrina, PR, Brazil, 2013

In Figure 2, the frequencies of the answers referring to the general concept given to the institutions evaluated related to patient safety are presented. It can be inferred that the evaluation was positive, considering that the greater frequency of responses concentrated on the excellent and very good categories, totaling (51%).

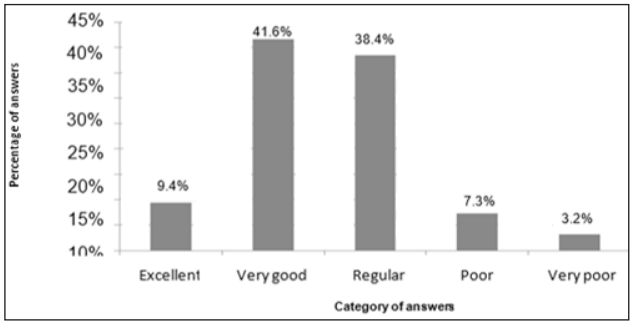

Figure 2 - Frequency of the general concepts of the institutions in relation to the patient safety culture of two hospitals. Londrina, PR, Brazil, 2013

It is possible to note that, when questioned about the number of reports of adverse events completed and presented in the last 12 months, the vast majority of responses were concentrated between 1 and 5 notifications, as shown in Figure 3.

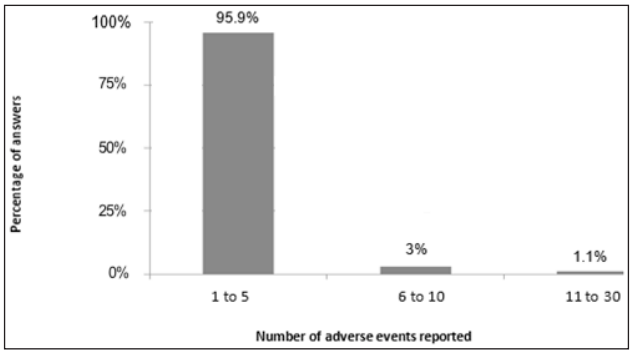

Figure 3 - Frequency of notification of completed and presented adverse events in the last 12 months in two hospitals. Londrina, PR, Brazil, 2013

DISCUSSION

The results showed, in general, that the evaluation of the workers in relation to the patient's safety in the institutions is not positive. It is important to highlight that patient safety problems have important financial, social and psychological impacts (increase in health costs and expenses, temporary interruption or permanent effects of productive activities, pain, emotional distress and impact on the mortality rate), affecting both the patient and the health institution. Therefore, patient safety culture plays a fundamental role in the definition of behaviors and implementations of actions aimed at improving institutional quality. It is from the recognition of institutional and professional potentialities and fragilities that there are opportunities for growth and results that are increasingly positive, both for patients and for the health institutions.[13]

Among the dimensions of the instrument that presented the most negative evaluations by professionals, workload related topics are highlighted: communication, punitive and hierarchical culture and issues related to supervision and leadership, pointed in negatively assessed dimensions such as the insufficient number of professionals to account for the workload, the professionals consider that their errors, mistakes or failures can be used against them, the supervisor/manager does not give sufficient attention to patient safety issues, the professionals do not feel comfortable to question the decisions or actions of their superiors and are not informed about changes implemented from the event reports. Also, the low number of notifications made by the participants was evident.

These concerns, as well as actions for improvement, should expand to all activities, professions, and positions within the health institutions. However, it is known that the work overload in the teams have an influence on the quality of the professional activities.

In the nursing team, the association between workload and adverse events is significantly high, negatively impacting patient safety.[14] Part of the errors are related to complex processes, devices used to perform care, fragmentation of care, failures in the communication process and lack of standardization of the procedures performed, and the teamwork must provide guarantees against human fallibility, thus strengthening the safety culture.[15]

According to a research carried out in hospitalization units of the clinical and surgical areas of a university hospital in the south of Brazil,[16] the work overload favors the incidence of some events such as bed fall, infection associated with the central venous catheter, absenteeism, and rotation.

The problem of the nursing overload is closely related to the insufficient number of professionals. The relationship between patient safety and the nursing quantitative emphasizes the importance of correct human resource dimensioning since mortality rates have been higher in hospitals where the dimensioning is inadequate.[14]

In this sense, a study conducted with the same instrument considered the reduced number of professionals as one of the factors for the underreporting of adverse events,[17] which in this study, together with the overload, totaled a 95.9% rate of events numbers between 1 and 5, in the last 12 months prior to the survey.

Most of the servers that responded to the instrument were nursing technicians. A recent study carried out in a public hospital of medium complexity shows that nursing technicians are the largest category of workers within the hospital environment, totaling 50.9% of the workers.[18] Thus, once the nursing team is composed of nurses, technicians, and auxiliaries, defining the profile of the workers[18] may indicate possible approaches to building a positive patient safety culture or strengthening the already existing culture. In this way, this should be the category that most needs to be trained regarding strategies to improve patient safety since they are responsible for the direct care of patients in the country.

Moreover, improvements in care processes managed by nurses and changes that benefit the system users, as well as workers, are enhanced through real communication, with respect among professionals and sustained in the interaction and cooperation between the professional knowledge and practices. One of the ways to improve communication and teamwork is to emphasize training programs in human resources management, aiming to reduce the levels of authority, and dynamics to increase the interaction between professionals, both from the same unit and distinct units.[7-19]

In addition to actions that aim at patient safety, they need to be transcended by the nursing staff and become a culture of the institution. The involvement of management teams is fundamental to disseminate the patient safety culture and, consequently, to plan, implement and evaluate several improvement actions.

Findings regarding patient safety concerns reveal that management does not provide a work

environment focused on patient safety, neither demonstrate interest and initiatives that promote it.[20]

Through the reporting of adverse events, professionals can see the risks that are present in the work processes, adopt measures to prevent events or barriers to their recurrence and also evaluate the measures implemented to evidence improvements in work practice.[21] Professionals should also be constantly guided about the importance of such records and their correct and full completion, whereas the notification forms should be clear, simple, easy to understand and complete. In addition, these facts add to the need to understand about adverse events by the professionals involved and the adoption of a non-punitive culture when faced with the event installed.[22-23]

From the perspective that the professional participation is fundamental to the development of quality care, their preparation is directly associated with the improvement of systems and the care process, which should be focused on teamwork, patient-centered care, in evidence-based practices, in the use of information technology and in improving quality.[24]

The valuation of patient safety and the implementation of measures for this purpose should be a priority for all professionals, especially those in positions at the top of the organization chart so that the positive results are evidenced in the work processes in the field of patient safety. Institutions should provide means to contribute to the analysis of their work processes, especially to prioritize patient safety through good structural work conditions for professionals and knowledge of existing problems to minimize them and avoid them when possible.

To strengthen the patient's safety culture, managers should consider a participatory management model with more horizontal structures that meet the needs of the patients and the professionals. In addition, the leadership of health institutions should coordinate the diversity among health professionals and their specialties, so that the work developed is coordinated, effective and safe for all.

It should be considered that the continuous and intense improvement of the hospital service will only achieve effective results if the nursing professionals are committed to the rupture of a mechanized service and to an excellent organizational environment. It is imperative to know how these workers, who represent the highest professional category in the hospital context, evaluate the patient's safety through a valid and reliable instrument that allows a consistent diagnosis of the potentialities and fragilities between what is expected - the ideal - and what happens - the real - in the organization. Thus, providing subsidies for the development and consolidation of quality institutional policies aimed at prioritizing the most fragile areas with a view to guaranteeing safe and qualified practices, as well as valuing the people involved in the health work process, whether workers or user.

CONCLUSION

Regarding the evaluation of the patient's safety culture, the adopted survey can become an important ally of the institutions to recognize the institutional cultural moment. The data provided through its application help in the diagnosis of quality because patient safety is an important dimension of quality and because patient safety directly influences mortality rates with considerable financial, social and psychological impacts.

The present study revealed that the institutions should rethink together with their professionals, especially the nursing team, their processes of reporting adverse events because it is a fundamental tool to promote patient safety. It provides important data in the processes of quality improvement, presupposing analyzes and evaluations, implementation of barriers, reviews of care and management processes, among other actions.

Some limitations can be pointed out in the research, such as the application of the survey only to the nursing team. Since health institutions are composed of several professionals, the inclusion of different professional categories in the researches can make the results about the reality of the patient's safety culture in health institutions more reliable.

Finally, it is concluded that advancing this issue is challenging for health institutions. Thus, from the current research, it is believed that others can be developed with the objective of knowing and evaluating the safety culture in health institutions, to consolidate a culture of constructive security. The stimulation of the patient's safety culture and the implementation of goals that aim at the prevention of adverse events are essential for the improvement of health systems. Preventing such events is currently a major challenge for improving health quality.

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Received: September 16, 2016
Approved: October 11, 2017