

Patient safety culture in intensive care units: perspective of health professionals



Cultura de segurança em unidades de terapia intensiva: perspectiva dos profissionais de saúde

Cultura de seguridad en unidades de terapia intensiva: perspectiva de los profesionales de salud

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ABSTRACT

Objective: To identify the patient safety culture in intensive care units.

Method: This qualitative, exploratory-descriptive study was conducted with five physicians, five nurses and 24 nursing technicians working in the intensive care units of two hospitals in the South of Brazil: one public and one philanthropic. Semi-structured interviews were held in September and October 2016 and analyzed using discursive textual analysis.

Results: Two categories emerged: Perception of error and Error management.

Conclusion: The professionals acknowledge the existence of errors in health care and assign their occurrence to individual failures and failures accruing from the organizational system but support a non-punitive culture of safety and encourage collective learning.

Keywords: Nursing. Patient safety. Organizational culture. Intensive care units.

RESUMO

Objetivo: Conhecer a cultura de segurança do paciente em unidades de terapia intensiva.

Método: Estudo qualitativo, exploratório-descritivo, realizado com cinco médicos, cinco enfermeiros e 24 técnicos de enfermagem atuantes em unidades de terapia intensiva de duas instituições hospitalares do sul do Brasil, uma pública e uma filantrópica. Realizaram-se entrevistas semiestruturadas no período de setembro e outubro de 2016, analisadas por meio da análise textual discursiva.

Resultados: Emergiram duas categorias: Percepção sobre o erro e Gestão do erro.

Conclusão: Evidenciou-se que os profissionais reconhecem a existência do erro na assistência à saúde e atribuem a sua ocorrência a falhas individuais e do sistema organizacional, além de estimularem uma cultura não punitiva e o aprendizado coletivo.

Palavras-chave: Enfermagem. Segurança do paciente. Cultura organizacional. Unidades de terapia intensiva.

RESUMEN

Objetivo: Conocer la cultura de seguridad del paciente en unidades de terapia intensiva.

Método: Estudio cualitativo, exploratorio-descriptivo, realizado con cinco médicos, cinco enfermeros y 24 técnicos de enfermería actuantes en unidades de terapia intensiva de dos instituciones hospitalarias del sur de Brasil, una pública y una filantrópica. Se realizaron entrevistas semiestruturadas en el período de septiembre y octubre de 2016, analizadas por medio del análisis textual discursivo.

Resultados: Surgieron dos categorías: Percepción sobre el error y Gestión del error.

Conclusión: Se evidenció que los profesionales reconocen la existencia del error en la asistencia a la salud y atribuyen su ocurrencia a fallos individuales y del sistema organizacional, además de estimular una cultura no punitiva y el aprendizaje colectivo.

Palabras clave: Enfermería. Seguridad del paciente. Cultura de la organización. Unidades de cuidados intensivos.

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■ INTRODUCTION

Hospital patient safety associated with a quest for improved quality care in health facilities has gained momentum in recent years. Patient safety has been considered a global goal and important initiatives have been taken in order to adapt health facilities to meet patient safety needs⁽¹⁻²⁾.

One of these initiatives conforms the Patient Safety National Program established by Decree No. 529 from April 1st 2013. One of the program's objectives is to improve health care by supporting the implementation of protocol-based care, encouraging patient safety culture among health facilities⁽³⁾.

The culture of safety encourages workers to be accountable for their actions and to acquire a new perspective on adverse events, ensuring impartiality and abandoning punitive practices, no longer blaming workers who commit a unintentional adverse event⁽⁴⁻⁵⁾. The intention is to change a social representation that health workers do not err⁽³⁻⁶⁾. The different health workers and managers working in a given organization hold different perceptions of what safety culture is. Therefore, identifying the patient safety culture held by those providing care in a given facility is essential to effectively improve care delivery⁽²⁾.

Assessing the patient safety culture of a health facility allows the identification of its main weaknesses, enabling the implementation of strategies that will encourage workers to abandon punitive practices whenever an adverse event occurs. Thus, such an assessment promotes safe care with the objective to achieve pertinent patient outcomes, avoiding unnecessary harm accruing from health care and making patient safety a priority⁽⁷⁾.

Therefore, promoting patient safety culture results in safer hospitals where workers feel free to identify and report errors, which in turn give an opportunity to improve the health care process and correct weakness existing in the environment with a view to promoting positive and strong patient safety within health facilities⁽⁸⁾.

Among the various health care settings, Intensive Care Units (ICUs) stand out in terms of patient safety. Due to their inherent characteristics, ICUs are considered a high-risk setting due to the clinical complexity of the patients and therapeutic procedures. Hence, the specificities of an ICU demand multiple types of care in order to ensure patient safety, which demands strategies to strengthen the safety culture in these environments⁽⁹⁻¹⁰⁾.

Unfortunately, negative patient safety, that is, a punitive culture, remains a reality among ICU nurses. This type of culture, however, should be overcome whenever there is the occurrence of an adverse event in order to

implement improvements to ensure the safety of critical patients⁽¹¹⁾.

There is a large number of quantitative studies held in hospital settings using validated instruments to collect data providing a comprehensive profile of the safety culture⁽¹¹⁻¹²⁾. Even though these studies are extremely relevant, there is still a need for qualitative studies if we intend to acquire a deeper understanding of the aspects related to this topic.

According to the previous discussion and seeking to understand issues that involve the patient safety culture phenomenon, the following question emerged: What is the safety patient culture held in intensive care units? This question was chosen because there is a need to perform qualitative studies and acquire a deep understanding of the aspects that surround this topic. The objective was to identify the patient safety culture held in intensive care units.

■ METHOD

This qualitative, exploratory-descriptive study derived from the thesis named⁽¹²⁾ "Patient safety culture in intensive care units" defended in the nursing graduate program at the Federal University of Rio Grande. The study was conducted in two general ICUs of two hospitals located in the South of Brazil. One is a philanthropic hospital with 251 beds and the other is a public university hospital with a total of 195 beds.

The general unit at the philanthropic hospital has 10 beds, three of which are designated to the Intermediate ICU. The care provided in this facility is mainly focused on polytrauma, stroke, and post-surgical and cancer patients, among others. Nine nurses, 27 nursing technicians and nine physicians work in this ICU. The ICU that belongs to the public hospital has six beds intended for patients affected by various pathologies, mainly infectious-parasitic diseases. Six nurses, 19 nursing technicians and ten on-call physicians work in this unit.

This study's participants were five nurses, 24 nursing technicians and five physicians, selected through non-probabilistic sampling, a convenience sample. Inclusion criteria were being a RN, nursing technician or physician; having worked for at least six months in one of the units; and being willing to answer the interview. Exclusion criteria were being absent at the time of data collection due to vacation or leave, or being a replacement worker because of these workers' frequent turnover among sectors, a fact that prevents them from experiencing aspects that enable them to understand the patient safety culture within an ICU.

Data were collected from these two general ICUs in September and October 2016 in the workplace at times scheduled according to the participants' preferences. Semi-structured interviews were audio-recorded and lasted 30 minutes on average. The interview contained close-ended questions that characterized the interviewees and open-ended questions that focused on aspects related to the patient safety culture in the workplace.

The process of data analysis started by transcribing the interviews and then performing a discursive textual analysis, which is a method intended to analyze qualitative data and acquire a new understanding of discourse and phenomena. The process followed three stages: unitization of texts; establishment of relationships; and identification of the emerging new, focusing on the construction of a self-organized process⁽¹³⁾.

Unitization consisted of immersing oneself in the interview transcripts by deconstructing the text and fragmenting it in units of meaning, which were rewritten so that they acquired the most complete meaning possible. After performing unitization, similar meanings were gathered, which constituted a process of establishing relationships or categorization. The last stage, identifying the emerging new, comprised the description and interpretation of meanings based on the text, which enabled the production of a new understanding of the patient safety culture held in intensive care units⁽¹³⁾.

Ethical guidelines were complied with, as provided by the Resolution 466/12, National Council of Health and the Institutional Review Board approved the study (Opinion report 126/2016). The study's justification, objectives, and procedures adopted were clarified to the participants through a free and informed consent form. The statements are identified using the letters N (nurse), NT (nursing technician), or P (physician) followed by a sequential number (N1 to N5; P1 to P5; NT1 to NT24).

■ RESULTS AND DISCUSSION

The characterization of the 34 participants shows they were aged between 22 and 61 years old; 31 were women; and had worked in the unit from six months to 39 years. Twenty-four worked for the philanthropic hospital and ten worked for the public hospital. Two categories emerged from data analysis: perception of error and error management.

Perception of error

This category reveals how the different health workers perceive human error in the health care process. Health

workers in general acknowledge the possibility of error in health care and assign its occurrence to both individual failures and failures accruing from the system.

The health workers interviewed in this study reported that to err is human and to minimize the risks patients are exposed to, institutional measures are needed. Such measures range from professional qualification to the implementation of technical standards, which shows a positive aspect of the safety culture held in the ICUs addressed in this study. Some workers, however, still resist acknowledging the existence of errors in their workplace, or simply deny the occurrence of errors, a situation that may compromise the safety culture.

Errors exist. There are standards that characterize errors. Medical errors result from malpractice, imprudence or negligence. And they occur very frequently. What happens is that there are laws, codes that should be fulfilled, laws should be complied with and we have to be within that line delimited by these standards. There will never be 100% safety but risks can be minimized considerably, to the extent that you move away from danger and approach safety. So, I think that our patients are exposed to many risks due to a lack of training, of the entire staff, from the employee who cleans the floor to the head of the ICU (P1).

Errors occur within every staff. I don't know, sometimes, I can see farther than my colleagues. But there are always errors. We are humans (N3).

I don't see anything wrong in my shift. At least so far, in all these years I've worked here, I've always worked in the night shift and have never heard of anything, not in my shift nor in the other workers' shifts. I think there is nothing (NT24).

The health workers assigned the occurrence of errors to both individual failures and failures existing in the system, which is an aspect that favors a positive safety culture. With regard to the system failures, the participants reported that both a lack of training and a lack of standards and specific routines along with the poor working conditions the workers are exposed to contribute to the occurrence of errors in intensive care settings.

(...) by proposing courses, qualification, training, (...) the first action of a nurse when arriving at the unit should be to gather the staff and talk five minutes about some subject, it may encourage a change of culture, but it requires time and people need to be well, have a good salary, have their bills paid, with good health, and so on. You cannot have a

worker in an ICU experiencing burnout syndrome, which is something that happens very often. The guys are hypertensive, have breast pain, headaches, are upset, are not able to pay their bills, nobody can work like that. Our institutions are very fragile, conditions are bad, and no one has realized that the main asset of an organization is people (P1).

I think that sensitization, acknowledging the importance of these acts; but not only that, implementing a protocol system and actions that are in harmony with the institution, with the hierarchy, with all the stages and nursing staff. It is no use to blame a professional who is directly dealing with patients. I believe that if you allow increasing the number of patients or the number of hours per worker, you should be held accountable for the mistakes these workers may commit (NT5).

This study's participants considered the work performed in ICUs to be a positive factor promoting patient safety because the structure and dynamics of this unit allow for greater control of the care delivered to patients, minimizing the occurrence of errors and adverse events. Similarly, health workers reported a patient-centered care, based on open communication shared with a multidisciplinary team, all of which favor the development of the safety culture.

ICUs are critical settings and many complex things happen at the same time, but in general the care provided is organized, so that we nurses managed to have greater control over everything that happens with patients, and that is why we managed to decrease or minimize the occurrence of various errors (N2).

You do not always have a way, or material, conditions. Here, we are privileged, we have good beds, a safety and closed room, we are always together, always taking care of patients. I guess it is easier to ensure patient safety, but beyond this unit the situation is different, because patients may be on gurneys, on chairs, and people may fall, because patients get agitated, decompensate... while here we have fewer patients (NT20).

I perceive [errors], but they are more difficult to happen. Here in the ICU, I believe we're not as exposed to errors, in comparison to the other wards in this hospital, where patients are much more exposed to errors. I believe that because this is an ICU and we have only critical patients, still, it is safer to work with patients here than in the ward, because here everything is more organized, we do not run

from one place to another. When you have an intercurrent with a patient, you know you have a complete team, not only the patient and I will face an intercurrent, but the patient and an entire team, so if a patient in a bed is having an intercurrent the entire team goes there, and the likelihood of errors decreases because we always help one another (NT1).

With regard to individual failures, healthcare workers assign the occurrence of adverse events to a lack of attention and neglect on the part of workers towards care, especially when prescribing, preparing and administering medications. The participants, however, discriminate between careful workers and those who present a conscious risk behavior, which shows that a culture of fairness has been considered in these settings.

I believe that the errors that happen more frequently are those of medication, related to wrong dosage, something that is not clear on the prescription or when some of the technicians get confused, otherwise everything is quite ok (N2).

Most of the times, mistakes happen due to neglect, not lack of knowledge. Workers don't do some tasks simply because they don't want to, but because they don't know what to do. Here for instance, nursing prescriptions are often neglected, people do not read them and some things go unnoticed, which wouldn't go unnoticed if people had given due importance (N3).

(...) I see the staff has experience and the staff knows how to be professional during a certain amount of time, when [error] occurs you know when it was weariness that caused it or a sequence of errors that led to the problem. So, I guess that there is credibility and when it occurs, one knows it was an unfortunate event, the act or action was not predictable (NT23).

Even more if an error happened after you had already talked to the person... if you had already talked many times about a given issue and a mistake occurred anyway. In this case, employees have been replaced in the unit but only because dialogue didn't work. The event was the last straw, really there was no other way, no solution, it was necessary to take a more drastic measure, so the employees involved in the case were replaced (N1).

Finally, the health workers interviewed here manifested feelings that emerged from the occurrence of errors in

the ICU, both errors committed by the interviewees themselves and those errors witnessed within the staff. Thus, the workers mentioned guilt, tension, fear, anger and shame after errors occurred. Experiencing these feelings, however, does not seem to compromise the safety culture, considering that errors were all reported with a view to achieving collective learning.

Witnessing an error leaves me tense, because I feel unsure: should I report to my boss that my colleague made a mistake or should I support my colleague? The patient is my first concern. And when I make an error myself, I also get in the same situation of not knowing what to do. When it's time to report to the nurse, I get afraid because you think: what now? What is going to happen to the patient and what is going to happen to me? But I report anyway (NT5).

Depending on the error, first you feel ashamed of nursing itself, but we feel ashamed for others, shame of the profession, but we try to get something out of the error, out of the situation. We try not to punish, which is not actually right. We try to do the following: today this error happened, so let's see if there is something we can do for this not happen again, and we talk with all the teams (N1).

Error management

The aspects related to the error management adopted in the ICUs included in this study are listed in this category, including the action of workers in the face of an error or adverse event. We verified that health professionals aim for transparent actions and behavior whenever they face an error, by using communication and defending a culture of fairness rather than a punitive culture.

The health workers reported that they identify, report and seek to solve problems related to safety in ICUs, which reveal the positive aspects of the safety culture in these units. When in the face of an error, health workers report it to the head of the unit, to colleagues, patients and family members.

The first thing I do is to report it to the nurses and then the doctor. You always have to report, so that the error is corrected as soon as possible (...). An error is always constructive, an error always has to be reported. An error can help teach others, it can add knowledge, it can teach (NT1).

When an error occurs, I always end up talking to the management, and if it is an error committed by a colleague, I talk to her as well. I report the error to see what can be done.

Right now I made a mistake, I gave coffee with sugar to a diabetic patient. I've already reported it to the nurse, that her CBG will raise, and I know it harms the patient. I guess that from the moment it occurs (an error) and everyone is aware it may happen, you need to acknowledge and act accordingly. If there was an error, what are the consequences? What harm can it cause? Can it harm the patient? So try to minimize and correct it, by reporting (NT5).

We don't have a punishment policy; it's never existed here. We call and talk to the person, and try to let people know without exposing the one who made the mistake, but try to prevent it from happening again, try to find a way so this won't happen again (E01).

Additionally, health workers reported they intend the organization to learn from errors and consider individual punishment to be incorrect. These professionals state that the occurrence of an error positively changes the actions of all the staff members, encouraging workers to become committed to patient safety.

The idea is not to punish anyone. Because people do not make mistakes because they want to, they make mistakes due to a lack of culture, supervision, training, qualification, and because people lose time with things that do not contribute to the unit's functioning. I think that one of our roles, of those in the management, is to characterize and point out the difficulties and try to solve them rationally, without punishing anyone, because the objective is not punishment but improvement. Improvement will only take place if we convince the person who committed an error that the situation can be better handled in another opportunity (P1).

Not only those who make a mistake learn, the entire staff can learn from errors. Because when you perform a given procedure, you'll recall what happened and if someone did something wrong, you won't want to do the same. When a mistake happens, something always changes, a positive change, because you get more attentive, you get afraid that the same thing happens again (NT5).

We always gain something. I do. You always pay more attention on a given procedure after an error has occurred. And, it certainly serves the entire staff. We always learn as a group (NT15).

Even though the health workers considered individual punishment to be wrong, some participants reported they

felt punished after committing an error, which may raise negative feelings and compromise the safety culture. Additionally, professionals reported that even though a positive change took place in the face of an error, change in the work process is slow and, in some cases, it does not last, demanding greater investment in the promotion of a safety culture.

An error is an error, and people will always talk many times about errors so it won't happen again, and sometimes punishment also takes place, which is something that is not always right. Errors are emphasized, and the problem is when everyone knows you were the one who committed it, people look at you, blame you, as if you're wrong, and you are in fact wrong. It sort of hinders the development of the team (NT1).

Sometimes, people start doing right in the beginning but then they go back to the wrong way of doing things. It's normal. Generally, the head nurse talks to everyone, shows what's happened wrong. Sometimes, it works for a while (NT7).

Assessing the safety culture is a continuous process that improves patient safety in the context of health facilities. A positive safety culture can be seen as a factor of the professionals' behavior in which they should be aware that humans are always susceptible to errors.

This study reveals that the participants acknowledge the possibility of errors while providing health care and therefore, workers are fallible and subject to mistakes, whether due to individual aspects or aspects accruing from the organizational system, a fact that helps to strengthen the safety culture. Some professionals still deny the existence of errors, as if they did not occur in their workplace, a behavior that can be considered negative for patient safety, because recognizing the possibility of errors is essential for promoting positive patient safety.

Many authors have addressed errors in the health field. James Reason stands out among them because he expanded discussions about error and human behavior, acknowledging and noting in his publications that all humans are fallible. Hence, considering that health workers may commit errors, health services need to reorganize their health care models, establishing mechanisms intended to minimize the occurrence of errors⁽¹⁴⁻¹⁵⁾.

The issue of human error can be seen from two different perspectives: from an individual perspective or the system perspective. The first refers to actions an individual

performs when s/he is insecure or at times of distraction and recklessness. The system perspective is centered on the conception that errors may occur in the best institutions because humans are susceptible to failure. Therefore, errors are seen as consequences rather than causes, and most of the times they originate from systemic factors⁽¹⁴⁻¹⁶⁾.

Even though this study's participants assigned the occurrence of errors during care delivery to individual failure such as lack of attention and neglect, they also distinguish between careful and dedicated workers and those who regularly present risk behaviors, showing the existence of a culture of fairness. Culture of fairness can be conceptualized as a model that attempts, throughout the work process, to distinguish between workers who have a competent and careful professional behavior, but for some reason commit an error, and those professionals who actually present unjustifiable risk behavior⁽²⁻¹⁴⁾.

Thus, a culture based on justice, in addition to properly identify each professional profile, acknowledges errors are not only individual failures but, in many cases, they result from the organizational system⁽²⁻⁶⁾. In this study, we verified that the participants consider professional devaluation, overload, and poor working conditions to be the system failure that contributes to the occurrence of errors.

It is clear that inappropriate dimensioning and the poor qualification of workers may lead to a greater occurrence of errors during care delivery. A significant association was found in the South of Brazil between work overload experienced by the nursing staff and the occurrence of adverse events such as falls and catheter-related bloodstream infections, revealing the negative impact of overload on patient safety⁽¹⁷⁾.

Therefore, preventive actions are recommended to improve the care delivery process and minimize risks which patients are exposed to. Examples of such actions include the establishment of protocols, availability of sufficient and high-quality material, professional valuation, and availability of training and qualification programs⁽¹⁰⁾. A lack of these may lead to errors and hinder the delivery of safe care, consequently impacting patient safety and the people's health.

Note that there are health facilities in which the predominant culture holds individuals totally accountable for the occurrence of errors. As a consequence, health workers feel guilty and experience tension, fear, anger, and shame, as this study's results reveal.

Intensive care nurses located in the state of São Paulo, Brazil report there is punishment in their workplace whenever adverse events take place, which generates

negative feelings such as shame and fear⁽¹¹⁾. This result is in agreement with this study's findings. Even though workers considered individual punishment to be wrong, some reported they had already felt punished after committing an error, a situation that hinders the implementation of a positive safety culture.

Punishment is not desired and the history of punishment among healthcare workers when in the face of errors or adverse events hinders the promotion of appropriate safety culture within institutions. Hence, it is necessary that health organizations encourage health workers to be responsible for their actions and adopt ethical behavior and strive for continuous learning⁽⁵⁾.

A point that is favorable to safety culture is that, even though health workers still see punishment-related aspects in their work environments, they also reported that transparency is a priority in their behavior whenever an adverse event occurs. So that they always try to dialog, establishing clear and effective communication whenever errors occur and try to solve patient safety issues, encouraging organizational learning.

Therefore, effective communication within the staff working in ICUs is an element that can positively impact the promotion and development of the patient safety culture. In this sense, error reporting is extremely relevant considering that failures in communication may compromise the continuity of care and jeopardize patient safety⁽¹⁸⁻²⁰⁾.

Another positive factor to be highlighted is that this study's participants report one aspect that contributes to the safety culture. The work process implemented in ICUs, that is, the dynamics of an ICU enables workers to have greater control over the care provided to critical patients, facilitating the prevention of errors and adverse events.

Even though ICUs are considered complex units with various stressful factors due to the clinical severity of its inpatients and the various technologies adopted, from the perspective of nursing workers, the environment of ICUs ensures quality of care. Thus, promoting a work environment that favors participation is essential to provide opportunities for workers to cooperate, give their opinions and ask questions regarding patient safety, consequently enabling actions and behaviors based on patient safety culture that lead to changes within health facilities⁽²⁰⁾.

Different health workers and managers within the same organization perceive safety culture differently. For this reason, promoting the patient safety culture within health organizations is a complex phenomenon composed of various challenges, which demands commitment and dedication of all those involved. Hence, it is necessary to

encourage the adoption of strategies intended to develop a positive safety culture, which enables the development of new health care practices⁽²⁾.

■ CONCLUSION

This study permitted identifying perceptions of error and error management in the work process from the perspective of different health workers. Workers acknowledged the existence of errors in care delivery and assigned the occurrence of errors to individual failure but also to failures accruing from the organizational system. Additionally, they support a non-punitive culture based on communication intended to promote collective learning as a strategy to manage errors.

The conclusion is that any type of health care setting needs to implement a management model that also focuses on patient safety. Therefore, the safety culture needs to be systematically monitored so that any weaknesses in the system are readily identified, creating opportunities to improve the delivery of care.

Finally, one of this study's limitations is that its results cannot be generalized because only intensive care units of a single city in the South of Brazil were addressed here. The context of these units is unlikely to be similar to the contexts of other health units around Brazil. Hence, further studies are needed to acquire a better understanding of the patient safety culture held by intensive care units in other regions.

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