Challenges to patient safety in intensive care: a grounded theory

Desafios à segurança do paciente na terapia intensiva: uma teoria fundamentada

Desafíos para la seguridad del paciente en cuidados intensivos: una teoría fundamentada

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Abstract

Objective: To understand, from Intensive Care Unit nurses' perspective, the challenges to patient safety.

Methods: This is qualitative research conducted with 20 nurses in two sample groups of two Intensive Care Units (ICU) in northern Brazil. Data were collected through semi-structured interviews. The method adopted was the Grounded Theory, emphasizing in this article a category and its subcategories with regard to conditions. The study was approved by the Research Ethics Committees of two institutions, under Opinions 2,755,619 and 2,829,210, in 2018.

Results: Three subcategories explained challenges to patient safety, namely: *Being immersed in non-systematized work processes*; *Communication failure among professionals*; and Finding gaps in continuing education.

Conclusion: The disorganization of work processes, faulty communication and insufficient continuing education actions correspond to the main challenges pointed out by nurses in the ICU routine, generating chains that directly affect patient safety management.

Resumo

Objetivo: Compreender, na perspectiva de enfermeiros de unidades de terapia intensiva, os desafios à segurança do paciente confrontados neste contexto.

Métodos: Pesquisa qualitativa realizada com 20 enfermeiros em dois grupos amostrais de duas unidades de terapia intensiva (UTI) do Norte do Brasil. Os dados foram coletados mediante entrevista semiestruturada. O método adotado foi a Teoria fundamentada nos dados, enfatizando-se neste artigo uma categoria e suas subcategorias no que concerne às condições. O estudo foi aprovado pelos comitês de ética de duas instituições sob os pareceres de número: 2.755.619 e número 2.829.210, no ano de 2018.

Resultados: Três subcategorias explicitaram desafios à segurança do paciente, a saber: estando imerso em processos de trabalho não sistematizados; falhando a comunicação entre os profissionais; e constatando lacunas na educação permanente.

Conclusão: A desorganização dos processos de trabalho, a comunicação falha e ações de educação permanente insuficientes correspondem aos principais desafios apontados pelos enfermeiros na rotina da UTI, gerando encadeamentos que incidem diretamente na gestão da segurança do paciente.

Resumen

Objetivo: Comprender, bajo la perspectiva de enfermeros de unidades de cuidados intensivos, los desafíos para la seguridad del paciente que enfrentan este contexto.

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Métodos: Estudio cualitativo realizado con 20 enfermeros en dos grupos de muestras de dos unidades de cuidados intensivos (UCI) del norte de Brasil. Los datos fueron recopilados mediante entrevista semiestructurada. El método adoptado fue la teoría fundamentada en los datos, con énfasis en una categoría y sus subcategorías en lo que respecta a las condiciones. El estudio fue aprobado por los comités de ética de las dos instituciones, con los números de informe 2.755.619 y 2.829.210, en el año 2018.

Resultados: Tres subcategorías explicitaron los desafíos para la seguridad del paciente, a saber: estar inmerso en procesos de trabajo no sistematizados, fallar en la comunicación entre los profesionales, y constatar vacíos en la educación permanente.

Conclusión: La desorganización de los procesos de trabajo, la comunicación defectuosa y las acciones de educación permanente insuficientes son los principales desafíos indicados por los enfermeros en la rutina de la UCI, lo que genera una serie de eventos que inciden directamente en la gestión de la seguridad del paciente.

Introduction

Patient safety has its basis in aspects developed over time, starting with the assumptions of Hippocrates (460-377 BC), when he stated that health care, above all, should not cause harm, passing through the contributions of Semmelweis, Nightingale, Codman, Donabedian and Cochrane, among other personalities.[1] However, the theme was established as a global health concern in the 2000s, with the publication of *To err is human: Building a Safer Health System*.

Since then, efforts have been focused on patient safety by the World Health Organization (WHO), and leaders from several countries in the search to build safer health practices at different levels of care.[2-4] Patient safety aims to reduce avoidable failures in the exercise of health care to an acceptable minimum, in order to offer patients quality and damage-free care with the adoption of "barriers" to error prevention. Thus, quality and health care security are inseparable. [5]

In Brazil, from 2015 to 2019, according to data from the Health Surveillance Notification System (NOTIVISA - *Sistema de Notificações em Vigilância Sanitária*), 264,033 health incidents were reported, with the hospital admission being the place with the highest number of notifications (n=13,4235), and the Intensive Care Unit (ICU) was responsible for 28.84% (n = 73,825) of reported incidents in the period. [6] It should be noted that health incidents are characterized as circumstances that result or not in harm to patients, and when care results in harm, it is called an adverse event. [5]

Being also considered a health challenge, patient safety and safe care have been widely discussed and addressed in various types of health services, at different levels of complexity, configuring a critical issue for health, because, to prevent human errors, it is necessary to understand how they happen. [5]

Critical care unit nurses develop numerous and complex attributions, always permeated with ethical and scientific responsibility in human care, seeking to promote quality of care and well-being to patients. [7]

In this context, it is essential to consider patient safety in its breadth and complexity, since it comprises characteristics beyond the quality of care and the adoption of protocols and packages of measures, encompassing in its framework attitudes, beliefs, symbolic values as well as meanings. Performing health care is a complex act, but the greater the understanding of the reasons for the problems encountered, the more "barriers" can be created with the action of continuing education to ensure patient safety.

Considering the relationship between patient safety and care environment, the *Keeping Patient Safe report: Transforming the work environment of nurses* argues that it would not be possible to keep patients safe unless the quality of nurses' work environment was substantially improved, as nursing care comprises an area relevant to health care quality and safety. [8]

Moreover, considering the work context of nurses, it should be observed that this is not geographically limited, because the context is also configured as a living system of connections, a place in which human interactions take place. [9] Thus, addressing patient safety in health institutions also implies unsetting the context in which professionals work, also highlighting the possible risks that this care environment produces. [10]

This study originated from one of the categories resulting from a doctoral thesis entitled "*Os significados atribuídos à segurança do paciente pelos enfer-*

meiros da unidade de terapia intensiva", which composes the conditions element of the paradigmatic model applied in Straussian Grounded Theory. This category was detailed in the present study, because it clearly exposes the organization influence, the environment and the preparation of professional to guarantee patient safety in the critical care environment.

With regard to improving safety, it is essential to provide opportunities for professionals to express their opinions on the patient safety phenomenon, enabling, among other issues, to verify weaknesses and potentialities present in the process.

Therefore, this study aimed to understand, from the perspective of ICU nurses, the challenges to patient safety faced in this context.

Methods

This is an excerpt from the research that gave rise to the doctoral thesis entitled "*Os significados atribuídos à segurança do paciente pelos enfermeiros da unidade de terapia intensiva*". A qualitative study, anchored to Straussian Grounded Theory (GT) methodological framework. [11] Symbolic interactionism, thought by George Mead and published by Herbert Blumer, was the theoretical framework used in the study. [12]

Symbolic interactionism, in the interpretative paradigm, focuses on understanding how people perceive the facts or reality around them and how they act in relation to their convictions. [13] Thus, as individuals interact, interpret or define each other's actions, and not simply react to each other's actions, because their responses are based not on observed actions, but on meanings given to such actions. [12]

Its use is justified in this study, since nursing is recognized as a social practice, having in its characteristics activities that are developed by a team, providing a web of group and interpersonal relationships, of a complex nature for themselves and for others involved in the work process. [14]

The GT emerged at the Chicago School in 1967, a systematic, inductive, comparative, cyclical and flexible research method, elaborated by the sociologists Barney G. Glaser and Anselm L. Strauss, as an innovative option with analytical rules focused on qualitative research. [15]

Due to differences in understanding GT, this junction of positivism with pragmatism generated tensions in the method development, causing other conformations to emerge. Currently, there are several versions of GT: Classic or Glaserian; Straussian or relativist of Corbin and Strauss; Charmaz's Constructivist; postmodern situational analysis by Adele Clarke; and dimensional analysis by Leonard Schatzman. [16]

A total of 20 nurses of both sexes participated in the study, from two sample groups, with 13 and seven participants, respectively. Six male and 14 female nurses, whose age ranged from 31 to 50 years; training time from one to 24 years and professional experience in ICU from six months to 15 years. As for professional qualifications, all of them had a graduate degree, 16 of them being *lato sensu*, while four attended *stricto sensu*.

The sample group presentation took place during the study, when nurses were invited to participate and, upon acceptance, they signed the Informed Consent Form (ICF). A first nurse was invited by the researcher, upon acceptance and completion of the interview, recommending a co-worker for the next interview. Thus, the snowball technique was followed, with the difference that saturation was theoretical. Participant selection followed GT's theoretical sampling criteria, enhancing opportunities for comparative facts or incidents to determine how a category varies in terms of its properties and dimensions. [16]

We included nurses who have been working in the ICU for at least six months. This criterion was adopted considering that, in this minimum time of six months, nurses would already have greater mastery of the sector's routines and, therefore, greater ability to answer the questions in the research script. Professionals absent from the scenarios during the data collection period, due to vacations or various leave, did not participate in the study.

Data collection extended to two distinct scenarios in the search for different possibilities regarding the category presentation and the expansion of

the dimensions of the categories generated in the first scenario with the first sample group, from data analysis at each interview, seeking to make the phenomenon explanation denser. The second scenario differed from the first, because it has a structure of Permanent Education Center and Patient Safety Center already established and in place.

In this way, the study included two public hospitals, the first being a backup for ICU beds in the emergency room of reference for the state of Rondônia, specialized in urgent and emergency care, with approximately 34 beds for adult care. It was classified in the Brazilian National Registry of Health Establishments (CNES - *Cadastro Nacional de Estabelecimentos de Saúde*) as a type II ICU, i.e., with an infrastructure that meets the minimally acceptable criteria for the care of critically ill patients, in accordance with MO Ordinance 3,432/98. The other hospital is a reference in the care of infectious diseases for the state of Rondônia and nearby regions, containing seven ICU beds, also type II.

For data collection, an individual semi-structured interview was used, guided by a script and recorded in electronic media, in addition to an instrument for characterizing the professionals prepared by the researcher. Semi-structured interview, cyclical method and the possibility of returning to the field before the next interview favored the filling of gaps that emerged during data analysis, revealing different nuances of the phenomenon studied.

Data collection was performed at nurses' workplace, usually in nurses' pantry or rest, on a scheduled date and time, over the course of 10 months, between September 2018 and August 2019, with the interviews having an average duration of 45 minutes. Data collection was completed when theoretical saturation was reached, i.e., when the categories presented explanatory density capable of contemplating the research object.

The analytical procedure followed the GT's own steps: open coding, axial coding and data integration. Generally speaking, analysis began with data ordering, interview transcription, careful reading and line-by-line analysis.[11] By performing raw data open coding, the preliminary codes were generated from the first interview and so on. It is noteworthy that the analysis was manual, without the aid of software for data organization and category presentation.

The generated codes were grouped by similarities and differences in the axial coding, generating the subcategories, which, when undergoing a refinement in data integration, gave rise to the central category. The central category elaboration is possible through the application of the paradigmatic model, an analytical resource adopted in GT's Straussian perspective for ordering categories in broad explanatory capacity.[16]

This study was approved by the Research Ethics Committees (REC) of the *Escola de Enfermagem Anna Nery* (EEAN) and the *Universidade Federal de Rondônia*, under Opinions 2,755,619 and number 2,829,210, and CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 91398518.5.3001.5300, in 2018. Ethical precepts involving research with human beings were respected, according to Resolutions 466/12 and 580/2018 of the Brazilian National Health Council. To guarantee participant anonymity, the statements were identified with the letter N (Nurse) and the cardinal number corresponding to the interview sequence. It should be noted that the research began after participants signed the ICF.

Results

Due to the theoretical density found in the aforementioned thesis, this article addresses the category "Experiencing disorganized work processes", consisting of three subcategories: *Being immersed in non-systematized work processes*; *Communication failure among professionals*; *and Finding gaps in continuing education*, focusing the paradigmatic model, is configured as part of the conditions. The paradigmatic model application is part of the data integration stage in the grounded theory analytical process, considering conditions those that create the circumstances in which the problems or events related to the phenomenon arise, i.e., the explanations that the interviewees give for the phenomenon. [11] These subcategories explain the main challenges pointed

out by nurses during the work processes in the ICU routine, impacting the intensive care environment.

Being immersed in non-systematized work processes

This subcategory reveals that, throughout their professional life, nurses recognize that they have accumulated experiences and that these contribute to the improvement of their technical skills in the sense of conducting their actions and perceiving situations that translate into risks for patients and professionals. However, being inserted in an environment whose work processes are sometimes disconnected, situations such as a reduced number of employees in general, including nurses who need to perform various functions and demand from others what they should do, end up generating overload and exhaustion in nurses, thus representing a complex situation for critical patient safety.

> *"The team of nurses and technicians here is reduced. Physiotherapy also very reduced. Nurses also end up being physical therapists, also playing the role of technician and, in this, they end up compromising care in several aspects" (N7).*

> *"Of course, there are shifts and shifts, but sometimes we are left with many things for the nurse, and it is a huge responsibility for us. That, then, is risk! And this becomes an overload of work and the person leaves here exhausted! Sometimes, it's an exhausting shift that might not be, because the tasks end up not being well divided. Nurses sometimes have several procedures and still have to be worried about charging the other professional what he has to do on duty" (N11).*

> *"Sometimes, we don't have a sufficient number of professionals to perform a simple change of position. This is still quite common! We would need a larger workforce and a larger number of people to be able to change the 2/2h decubitus" (N17).*

> *"Often, when the team is reduced, the error occurs, because it ends up overloading the team. The few that do end up overwhelmed. And, many times, the team is reduced with the ICU full!" (N19).*

Although issues such as the number of professionals are beyond nurses' governance, from the perspective of reorganizing work processes, nurses point to the adoption of operational protocols as a valid strategy, provided that they are duly studied and disseminated to all multidisciplinary team members. However, they show resentment for having been excluded from the elaboration of these protocols, which should not have happened.

> *"Regarding invasive procedures, many procedures are done here. If we had all that checklist of how preoperative care has to be done during and after the procedures, the issue of error would be minimized. So, we could greatly improve the quality of our assistance, our working methods. I think that's missing here" (N11).*

> *"We have patient safety protocols here. It is even printed, available for reading, for those who want to study. We received these protocols ready, having a team that developed, printed and made them available to the ICU and other sectors. It was publicized like this: here is the protocol for those who want to read and get oriented [...] or have booked a course. I did not participate in these courses or the protocol. The management gathered a team from outside the ICU to make the protocols, but it would be interesting for those who are working on a day-to-day basis to have this participation. We were not asked. Perhaps it would be interesting, because who will carry out the actions is who is working here, who knows the problems, the difficulties of the day to day" (N14).*

> *"It would make a total difference for us to participate in protocol preparation, because generally the person who makes the protocols is not the one who is there next to the patient, who does not know the service's reality. So, if all the components that work in the sector participated in the preparation of protocols, I think we would have protocols and standards more in line with our reality" (N19).*

In both study scenarios, nurses mentioned adopting protocols as measures that protect critically ill patients and favor safe care. However, in the second scenario, an issue raised deals with the need for ICU nurses to be heard, or even to have the opportunity to participate in the elaboration of care protocols that are used in the sector.

Communication failure among professionals

This subcategory presents effective communication being recognized by nurses as essential for patient and professional safety.

> *"Good interpersonal communication for me is the most important goal, considering patient safety, because nothing will be solved if you don't have this communication. It's no use talking to someone today and not passing on the information, so I think this second goal is the main one" (N 6).*

> *"Good communication is very important, because our assistance is based very much on what is passed on to us, through a prescription or a command. When you have a tracheostomy, for example, the importance of good communication is shown. Often, patients have bleeding, so we tell the surgeons and they don't do the procedure at that time" (N9).*

Thus, the exercise of effective communication, based properly on an instrument supported by scientific evidence, a protocol, translates into better outcomes for patients, which is not yet properly established in the two study scenarios, according to the excerpts below:

> *"Often, some measures are taken unilaterally, which the manager passes. But he only passes the information to that nurse on duty, who does not pass it on. Sometimes, some measures are taken in a non-homogeneous way, they are not disseminated among the team" (N5).*

> *"Through communication we have to communicate what we want and we have to communicate clearly. Unfortunately, I see a lot of miscommunications happening still" (N9).*

> *"In our reality of intensive care, what we observe is exactly that, the lack of effective communication, which in my opinion is the most aggravating factor" (N17).*

> *"So, this is very complicated, because here the entire team in the sector has changed. This ends up shaking the team's communication in some way, due to this staff turnover (N20).*

Another highlight, which emerged from the data, still considering work processes, was based on permanent education, mainly in the absence of it, or in its execution from plastered strategies that are not concerned with meeting the real needs of professionals, or even for not providing opportunities for the participation of care professionals in this process, which ends up favoring the absence of most of them in educational actions.

Finding gaps in continuing education

This subcategory refers to the insufficient offer of permanent education actions, to expand or even print the knowledge necessary for safe care, which directly implies the performance of professionals working in the ICU. Continuing education, or even continuing education measures, are recognized as priority and necessary measures for professionals working in the ICU.

> *"Permanent education is of paramount importance, very important within the hospital for the multidisciplinary team. There is not even a continuing education here. Every once in a while, there are mini-courses, but they happen once or twice a year. When there is continuing education, the team works more effectively, knowing what they are doing [...], and realize what they're doing wrong" (N7).*

> *"Most topics here are not discussed. Information is sometimes disseminated through banners. There was a banner that talked about patient safety in the cafeteria, but no one ever talked about it. I think there is a lack of a Permanent Education Center here, or that the one from hospital X would*

come here, but there is a lack of people available to see what is necessary for the team" (N9).

"I think the presence of a Permanent Education Center here at the hospital is fundamental, because despite having been working for some time, sometimes we need continuing education to improve the quality of that specific knowledge and also to correct some practices that, due to lack of knowledge, we end up committing at work" (N13).

However, even in the scenario where there is a Permanent Education Center (PEC) structured and acting, either the knowledge has not been adequately disseminated or, for different reasons, many nurses end up not participating in the training offered by the institution. It was claimed that the training takes place outside working hours, in addition, they present protocols developed without the participation of professionals working in the most complex hospital sectors.

"Here the PEC had a little distance, being rescued recently this work. The thing was a little forgotten. A new team came in and I think the protocols could be presented to this team, not just to the nurses. Show: look, it exists! It's part of assistance. This is how this procedure is properly performed. There must have this rescue" (N15).

"Unfortunately, most employees, because they are very tired, end up not participating in training. They usually have two jobs and are already too tired to attend training" (N17).

"They scheduled a course, but not everyone can go because no one is interested in leaving home outside of their working hours to come and take the course. I did not participate in these courses [...], at least there was no PEC activity during my working hours. Usually the courses are advertised and taken there in the auditorium, it takes a day or two of training" (N14).

"I myself don't like to participate in the courses here, because the majority who teach the courses are people who are not in the assistance. These professionals who make the protocols are the ones who participate in the courses outside Rondônia on patient safety, which, for me, is wrong. Who should be part of the protocol is the professional who is working in care, in front of the team, and not people who only have theory, who do not know how practice works. Every month there are several training courses in which only half of professionals participate for this cause. You don't want to be taught by a person who, when they're in assistance, they don't know how to do anything. How are you going to teach something practically when you've never done it? Knowing how to do it on the puppet is one thing, but patients are not a puppet" (N20).

Another issue regarding continuing education, as a mechanism for transforming professional performance and contributing to critically ill patient safety, is that professionals reach resistance when there is a lack of adequate structure and equipment for the implementation of learned knowledge, as in the following reports:

"I've already taken some courses where patient safety goals were shown, but defining and acting daily in the service, I still haven't been able to "get" that. Nowadays, patient safety is questioned, because we don't have ways to put it into practice" (N3).

"We are focusing this year on hand hygiene and ulcer prevention, to try to achieve this part of the goals. The lack of material is still a big problem, it is not often that we have material available to do the care properly" (N4).

"In my view, patient safety is a utopia, because I heard a colleague say once: "I don't go to training, because what good is it if I go there and spend four hours listening to talk about patient safety? Then I arrive here at my service to apply patient safety and I can't afford it". So, I think it's important, but we have to improve a lot to be able to adapt to a first world model, it's not our reality" (N12).

Another point worth mentioning in participants' statements is that managers must be knowl-

edgeable about good evidence-based health practices, and they must know the environment for which they are responsible and recognize the importance of training care professionals, finding ways to meet the necessary demands.

> *"Once, in another work relationship of mine, training was offered, but due to the workload and not having the release of the shift, it was not possible to participate" (N12).*

> *"Here, protocols and courses are very deficient, but I myself have never participated in these courses here. I don't know if some other colleagues have the same flexibility to be participating, I don't know. So that's it, we don't participate in it, I've never participated myself" (N8).*

The way in which the management of people and material resources is carried out implies, therefore, the chains that directly affect patient safety management in the ICU according to nurses.

Discussion

Reflecting on the relationship between the intensive care environment conditions and patient safety, authors [17,18] highlight that it is a sector that, due to its characteristics, offers increased risk to patients assisted there, as well as the occurrence of adverse events prolongs hospital stay and increases the mortality rate of critically ill patients. On the other hand, it is important that professionals who assist in the hospital environment early identification of risks, in order to ensure patient safety, restore their health and avoid or minimize complications during hospitalization. [19]

It is understood that an environment in which there is no clear definition of team member's role, when the work processes are not systematized and organized, end up producing overload and frustration. Similarly, if nurses neglect their team oversight function, if it does not guide their team, it somehow also cooperates in the occurrence of failures. Work organization is based on clear definition of norms, protocols, rules and flows, which must be socialized and respected by all professionals, making the actions together meet the objectives proposed by the health service. [20]

However, in the ICU, nurses sometimes feel responsible for encouraging even other multidisciplinary team members to fulfill their duties at opportune times. However, this concern causes nurses to take responsibility for keeping the shift "in order", producing in themselves the feeling of overload and tiredness. These feelings also tend to surface when professionals are in the sector who are tired for work, generating tension and greater wear for nurses, because the situation requires the latter greater vigilance to the actions of those professionals.

These findings are in line with the findings of a study published in 2017, which shows that, among the limitations faced by the nursing team in the care environment, the most frequent are: mismatch in the number of professionals to meet patients' demands; inadequate staffing; insufficiency or inadequate conditions of equipment and supplies; accumulation of functions; high workload; and professional devaluation. [21]

Negative feelings such as frustration that nurses experience in the ICU increase the chances for developing Burnout syndrome, a problem well documented in the literature. [22-24] Moreover, the sustained lack of proper organizational support, which is reflected in the negative feelings mentioned above, also pose risks to patient safety in the critical care sector such as the ICU, since the psychic health of professionals and patient safety are related. [24]

Reinforcing the understanding of this correlation, data from a systematic review published in 2020 showed that health professionals, especially physicians and nurses working in ICU, face a wide burden of stress, presenting symptoms of depression, which in 14.5% of cases have severe symptoms, revealing that interventions are necessary to help these professionals in coping with the critical scenario. [25]

Among the issues involving patient safety goals, effective communication was pointed out by nurses as essential for error prevention as a guarantee

of safe care in the ICU. In this attempt to prevent latent conditions, which promote errors, from happening, not allowing active failures to be triggered, actions such as effective communication among health team members play a fundamental role.

Effective communication as well as the multidisciplinary team's work are understood as determinants of quality and safety when we think of health care. Communication failures among health professionals represent one of the main contributing factors for the occurrence of adverse events, compromising quality of care. [26] The main factors that hinder good communication between health care professionals are pointed out: lack of time, shortage of personnel, lack of standardization, incompetence or lack of knowledge of the importance of communicative action. [27]

Participants' speeches expressed that, sometimes, the absence of a linear, effective communication, in which information is uniformly conveyed in a clear and understandable way to all care team members, gives rise to error occurrence. When individual and group strategies focused on communication skills and mutual respect at work acts as barriers to destructive behaviors and, if properly instituted, have a positive impact on patient safety. [28] Thus, a failed communication was also pointed out as a characteristic of disorganized work process and with flows undefined by the study nurses.

Through communication, mainly through verbal language, we establish social interaction and cooperative behavior, as long as there is adequate understanding of the sender, who sends the message, and the receiver, who receives it. Communication presupposes reciprocity and action with a view to a common purpose. In nursing, we used verbal and written communication, denoting a form of understanding between people and considering a valuable instrument in information conveying.

Thus, safe communication is a fundamental part for the exercise of nursing care, in which nurses establish a verbal or nonverbal dialogue with patient and multidisciplinary team. Dialogue requires, at the same time, clarity and objectivity. It is essential for communication, from the perspective of patient safety, the adoption of knowledge tools by the entire team to reduce the possibility of errors in the execution of care or even in information conveying. [28]

Not least, nurses declared to recognize the relevance of the Permanent Education Center (PEC), of educational actions and their relationship to quality and safety in health care, which makes all the difference in the face of a sector that requires complex, specific assistance and uses various technological resources in the recovery and rehabilitation of critically ill patients.

However, it appears that, in order to establish a safety culture, it is not enough just to have an active PEC, since this alone does not solve the issue, because assuming patient safety as a practice requires a change in posture and, especially, in work processes for some nurses. However, educational measures enable the development of actions that allow subjects to become reflective and conscious, reflecting on the dynamics in the space that surrounds them, understanding their responsibility for the changes that are necessary. [29]

It is recommended to professionals who perform health care, especially critically ill patients, constant training, aiming at the correct handling of equipment and devices, the proper use of sedatives, changes in decubitus, prevention of falls among other aspects.[17] Moreover, to reduce adverse events, it is necessary to strengthen aspects such as commitment, responsibility and cooperation among team members, enabling good communication and a pleasant atmosphere in the work environment. [10]

It is notorious that investing in nurses brings good results to patient safety, with relevant actions such as allowing their participation in the processes of permanent analysis of service conditions, in the identification of risks and in the incorporation of safe and evidence-based practices in the institution. [30]

From the perspective of symbolic interactionism, comes the possibility of understanding the world of lived experiences from the point of view of social agents in a given context, embracing that this perspective of symbolic interpretation approaches society and its organizations from a mainly subjectivist position, in order to understand the meanings existing in different social contexts. [12]

The subcategories explained here come from a complex phenomenon, which daily needs to be managed by ICU nurses. Requiring effort on their part to implement the principles of patient safety in their sector of operation. It is perceived that the complexity lies precisely in the fact that nurses feel pressured to manage aspects that are specific to their profession, but also aspects that are beyond their domain and governance, i.e., that need to be considered, as they directly interfere in the outcomes obtained in care.

It is understood that patient safety is a subjective phenomenon permeated by tensions, being configured and mentally reconfigured by nurses in the face of social interactions. Another point that deserves to be highlighted is that since its beginnings, nursing is a profession of struggle, because it has faced challenges of various orders in its social and professional context.

Considering the advent of the SARS-CoV-19 pandemic, many of these challenges and obstacles to the full exercise of nursing care were unveiled.[31] Thus, in the 21st century, obstacles are still present, since nursing, as a science, is still concerned with building and establishing its own knowledge and, as an autonomous profession, seeks to value and equal conditions with other health professions. Therefore, the idea of daily struggle is a reality in nurses' routine.[32]

The conditions pointed out regarding the phenomenon of the study, in the light of symbolic interactionism, brought about the need to consider the nurse dynamics in relation to patient safety goals in their multidimensionality. Daily nurses fight in the context of critical care, considering that, in order to plan nursing care, they will need to manage aspects related to the structural, material, professional and patient environment. [6]

It is not least that patient safety represents one of the greatest challenges for quality excellence in health services and nursing has a fundamental participation in processes aimed at ensuring this quality in the care provided. Nurses' involvement in issues related to patient safety is closely related, including the number of nursing professionals working in institutions, as well as their responsibility in patient care, daily. [10, 33]

The limitations of this study are mainly related to the location of the interview, the work environment, which may have led the nurses to answer the researcher's questions with some haste. Another limitation concerns the restriction of study participants to only one professional category, not approaching other professionals who could contribute or interfere in the phenomenon studied in a sector with multidisciplinary action.

However, this study corroborates the idea that nursing has been concerned with studying human uniqueness and complexity and their reflexes in the daily practice of care, allowing a reflection on the issues that weaken patient safety in the ICU, providing support for significant educational actions that promote changes in the context of critical care.

Conclusion

It was found that in the managerial dimension, patient safety is affected by multiple factors, inherent to the weaknesses of work processes, influenced by the absence or incipient actions of permanent education, generating harmful feelings in professionals, interfering in their actions and interactions, enhancing the occurrence of adverse events. The category addressed in this article encompasses aspects from nurses' experiences and their social interactions in the work environment, and through the reflexive movement of this interaction, relevant factors are expressed: disorganization of work processes; failed communication between professionals and insufficient continuing education actions, corresponding to chains that directly affect patient safety management in critical care.

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Collaborations

Hang AT, Faria BG, Ribeiro ACR and Valadares GV contributed to the project design, data analysis and interpretation, article writing, relevant critical review of intellectual content and final approval of the published version.

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