

Perception of nursing and medical professionals on patient safety in neonatal intensive care units



Segurança do paciente na percepção da enfermagem e medicina em unidades de terapia intensiva neonatal

La seguridad del paciente en unidades de cuidados intensivos neonatales en la percepción de la enfermería y la medicina

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ABSTRACT

Objective: To describe patient safety in the perception of nursing and medical professionals of neonatal intensive care units.

Method: Exploratory and descriptive study with a qualitative approach, using the instrument *Hospital Survey on Patient Safety Culture* for data collection. Twenty-eight nursing and medical professionals of three neonatal intensive care units in the city of Florianópolis, state of Santa Catarina, participated in the study, from 2013 to 2015. Content thematic analysis was used for data analysis.

Results: The following categories emerged: perception and strategies for patient safety; risk factors that interfere with patient safety; challenges in the communication of errors associated with health care.

Conclusions: Patient safety in the perception of professionals reflected the importance of safe care and the identification of risk factors in work conditions, predisposing to errors. Communication of risk situations, development of safety culture, and qualification are of utmost importance.

Keywords: Patient Safety. Intensive Care Units, Neonatal. Neonatal Nursing.

RESUMO

Objetivo: Descrever a segurança do paciente na percepção dos profissionais de enfermagem e medicina de Unidades de Terapia Intensiva Neonatal.

Método: Pesquisa qualitativa descritiva exploratória na qual foi utilizado o instrumento *Hospital Survey on Patient Safety Culture* para a coleta de dados. Participaram da pesquisa 28 profissionais de enfermagem e medicina de três Unidades de Terapia Intensiva Neonatal de Florianópolis/Santa Catarina, no período de 2013 a 2015. Para a análise dos dados, utilizou-se a Análise Temática de Conteúdo.

Resultados: Emergiram as seguintes categorias: percepção e estratégias para a segurança do paciente; fatores de risco que interferem na segurança do paciente; desafios na comunicação de erros relacionados ao cuidado em saúde.

Conclusões: A segurança do paciente na visão dos profissionais refletiu a importância do cuidado seguro e da identificação de fatores de risco nas condições de trabalho que predisõem a erros. A comunicação de situações de risco, o desenvolvimento da cultura de segurança e a capacitação tornam-se fundamentais.

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

RESUMEN

Objetivo: Describir la seguridad del paciente desde la percepción de los profesionales de enfermería y medicina de Unidades de Cuidados Intensivos Neonatales.

Método: Investigación cualitativa exploratoria descriptiva, utilizando el instrumento de recolección de datos de la encuesta en el Hospital Cultura de Seguridad del Paciente. Participaron en la encuesta 28 enfermeras y médicos, en tres Unidades de Cuidados Intensivos Neonatales de Florianópolis (Santa Catarina), de 2013 a 2015. Para el análisis de datos se utilizó el análisis de contenido temático.

Resultados: Demostraron las siguientes categorías: percepción y estrategias para la seguridad del paciente; factores de riesgo que interfieren en la seguridad del paciente; retos en la comunicación de errores relacionados con el cuidado en salud.

Conclusión: La seguridad del paciente según la percepción del profesional refleja la importancia de un cuidado seguro y la identificación de los factores de riesgo en las condiciones de trabajo, lo que predispone a errores. Existía la necesidad de comunicación de situaciones de riesgo, el desarrollo de una cultura de seguridad, así como la capacitación sobre la seguridad del paciente.

Palabras clave: Seguridad del paciente. Unidades de cuidado intensivo.

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■ INTRODUCTION

Newborn care in the healthcare area went through significant advances in recent decades, by means of the production and diffusion of scientific knowledge combined with technological development. The implementation of neonatal intensive care units (NICUs) enabled early detection and treatment of neonatal risk situations, contributing significantly to the increase in newborn survival⁽¹⁾.

In the face of this context, advances in neonatal care provided several potentialities. In contrast, major concerns emerged, such as quality of care and patient safety in this new, complex, and critical setting of hospital care. Considering this new health care outlook, patient safety refers to the importance of safe care, aiming at the reduction in errors and harm during patient care⁽²⁾.

It is worth mentioning that the theme patient safety gained worldwide prominence after the release of the report *To Err is Human: Building a Safer Health System*. This report led to a worldwide patient safety movement after showing that patients are exposed to risks that may interfere with their safety, leading to errors and harm to health. In addition, the report showed high mortality rates caused by health care in American hospitals, and that most deaths could have been prevented⁽³⁾.

Regarding safety of neonatal patients, it is worth mentioning that newborns may be exposed to higher risks due to specificities of these patients, such as extreme physiological fragility and developing organic systems, which harm their safety for requiring specific care⁽⁴⁾.

Consequently, parallel to birth, newborns may require therapeutic interventions, use of invasive devices, and medications not always developed specifically for them, predisposing to errors. In addition, patient safety may sometimes be affected by issues associated with the environment of NICUs, with inappropriate infrastructure, overcrowding, inadequate number of professionals, work overload, limited resources, or poor quality of equipment and materials⁽⁵⁾.

Risks to the safety of neonatal patients may lead to harmful errors to their physical integrity. Errors that cause harm to patients are characterized as adverse events and are responsible for morbidity and mortality that could be prevented, representing a financial burden for institutions, in addition to the social burden and suffering caused to neonates, families, and professionals who committed the errors. Consequently, adverse events are associated with quality of health care and patient safety in health institutions⁽⁶⁾.

A study carried out in a Brazilian NICU identified adverse events in 84% of the newborns hospitalized. Body

temperature regulation and blood glucose disorders, and healthcare-associated infections were the most frequent adverse events⁽⁷⁾. Another study with a systematic review on adverse events in NICUs showed a higher occurrence of adverse events associated with incorrect dosage of medication (38%), accidental loss of intravascular catheters (25%), skin injuries (21%), and healthcare-associated infections (20%)⁽⁶⁾.

Another study carried out with 239 neonates showed that adverse events caused by healthcare-associated infections are associated with morbidity and mortality rates in NICUs. It showed an incidence of hospital infection of 45.8% and mortality rate by healthcare-associated infection of 33.8%⁽⁵⁾.

In the face of the great impact of adverse events on neonatal patients, minimizing the occurrence of errors is of utmost importance. Therefore, with the purpose of seeking better results in care, collaboration and involvement of professionals of healthcare teams are essential for the improvement of patient safety.

Professionals involved in care, specially nursing and medical professionals, represent an essential factor in patient safety, since they are continuously tied to this process, being able to contribute to the identification of dangerous situations and errors present in the healthcare system. Knowing the perception of nursing and medical professionals on safety of neonatal patients may allow the representation of the patient safety outlook in the daily routine of NICUs.

In the face of the complexity and innovations of care in NICUs settings, and based on the assumption that nursing and medical professionals play active roles in the process of safety, the description of patient safety from these professionals' point of view becomes essential for the planning of safe care. Therefore, the question of the present study was "What is patient safety like in the perception of nursing and medical professionals of neonatal intensive care units?" The objective of the present study was to describe patient safety in the perception of nursing and medical professionals of neonatal intensive care units.

■ METHODOLOGY

An exploratory descriptive study, with a qualitative approach, was carried out from 2013 to 2015 in three NICUs of three public hospitals in the city of Florianópolis, in the state of Santa Catarina. These units are reference in neonatal care in the state of Santa Catarina and provide complex care for neonatal patients in critical condition, who require continuous care and a high level of technology for treatment.

The instrument Hospital Survey on Patient Safety Culture⁽⁸⁾ was used for data collection. The authors authorized its use and translation, which followed the steps proposed by the protocol Translation Guidelines for the AHRQ Surveys on Patient Safety Culture⁽⁹⁾.

This instrument presents two sets of questions. The first set has objective multiple choice questions that represent the study's quantitative cut-off, and these results were developed into two manuscripts already published in scientific journals⁽¹⁰⁻¹¹⁾. The second set contains subjective questions that represent the study's qualitative cut-off. This manuscript was developed from the qualitative cut-off corresponding to the second set of subjective questions of the data collection instrument, approaching the theme of patient safety, errors, and communication of events.

The study participants were 181 professionals, including physicians, nurses, and nursing technicians and aides of the NICUs. The general sample of the study regarding the quantitative and qualitative cut-off was intentional and followed these general inclusion criteria: being nurses, nursing technicians, nursing aides, or physicians working in NICUs; working in NICUs for more than two months, since this length of time was considered the minimum necessary for their adjustment in the work unit. The exclusion criteria were: professionals of the teams who were absent in the sector due to vacation, sick leave, maternity leave, or bonus leave, and instruments filled in less than half. Following these criteria, the general sample had 141 professionals. Regarding the study's qualitative cut-off, being professionals who did not respond to the instrument's qualitative set was added as an exclusion criterion. As a result, 113 professionals who met this criterion were excluded. Finally, the study that represents the results of this manuscript, that is, the study's qualitative cut-off, was made up of 28 professionals.

The research project was presented to these 28 professionals, and informed consent forms were delivered to those who accepted to participate in the study. For data collection, all participants received an envelope containing a questionnaire and were asked to fill it in, seal it with glue, and place it in a box, thus ensuring their anonymity.

The instruments returned were classified and organized as follows: by numerical order from 0 to 28; and according to the participants' profession, with (N) for nurses, (NT) for nursing technicians, (NA) for nursing aides, and (P) for physicians.

The data were analyzed by means of content thematic analysis. This analysis consists of an evaluation of the material in stages or times, which are structured in: (a) pre-analysis of the data: characterized by thorough reading and reformulation of hypotheses, meeting the text complete-

ness, homogeneity, exclusivity, objectivity, and relevance; (b) material exploration: organization of categories that express the content analyzed, by means of reduction of the text to expressions or words and subsequent aggregation of the data in categories; (c) data treatment/interpretation: consisting of an interpretation of the data based on theoretical material selected or new theoretical dimensions⁽¹²⁾.

For ethical reasons, guidelines of the Resolution 466/2012 were respected, and the research project was approved in the Plataforma Brasil under protocol no. 128.478.

■ RESULTS

Among the 28 study participants, 5 were nurses, 14 were nursing technicians, 4 were nursing aides, and 5 were physicians. Among them, 17 participants worked in the profession for more than 10 years, 8 between 1 and 5 years, and 3 between 6 and 10 years. Specifically with regard to the length of time working in the NICU, 16 professionals had more than 10 years of work, 7 between 1 and 5 years, 3 between 6 and 10 years, and 2 less than 1 year. Regarding weekly working hours, 16 worked less than 39 weekly hours, 6 between 40 and 59 hours, and 6 (20.7%) between 60 and 99 hours.

Three categories emerged from the qualitative data analysis: perception and strategies for patient safety; risk factors that interfere with patient safety; challenges in the communication of errors associated with health care.

Perception and strategies for patient safety

This category showed the perception of professionals on patient safety in NICUs. It is clear that these professionals recognize the importance of patient safety and understand that work routines might expose neonates to dangerous situations. In addition, they feel responsible for providing care that is safe and free of harm. However, they mention that patient safety may not be a priority for some professionals, as shown in the following records:

Patient safety is not a priority in the point of view of managers! (15 N).

Negligence may be fatal or leave sequelae; patients' lives are in our hands (26 NA).

In the NICU where I work, patient safety is always prioritized (25 NT).

They also report that due to the complex context of NICUs, professionals might commit errors, leading to se-

rious consequences for neonates. As such, they point out that investing in prevention to avoid risks is of utmost importance, as shown in the records below:

It is difficult to provide care without taking risks for patients (13 NT).

Reflecting upon prevention is necessary to prevent certain unpleasant eventualities (18 NT).

The reports showed that prevention of errors and promotion of patient safety are associated with the need for qualified employees for the job. In addition to qualification and update for professionals who are already working in NICUs, the importance of appropriate training of new professionals who are entering the job market was also approached. Considering this context, they understand that professional update on patient safety is of utmost importance for improvement of care, and this concern is pointed out by these professionals, as shown in the following report:

The managers of the hospitals in the state have a lot of difficulty in selecting HR; workforce is gradually becoming less prepared. (27 P).

Risk factors that interfere with patient safety

The professionals mention that safety failures may be related to the reality of services due to several risk factors. Among these factors, they mention inappropriate infrastructure, poor quality materials, old equipment without regular maintenance, and work overload due to the reduction in employee numbers.

According to them, although professionals perform their job following existing protocols, the work environment may be a predisposing factor for the occurrence of failures in the process of care. The structural matter of some NICUs located in old buildings with eventual renovations might be exposing neonates to higher risks, because an old and inadequate physical space with overcrowding of patients ends up hampering the quality of care provided by healthcare teams. Therefore, the implementation of NICUs inside institutions must be planned carefully, considering routines of care and flow of services to provide appropriate conditions for the safety of professionals and patients. This context can be observed as follows:

With regard to risks to which patients are exposed, most of them have more to do with the structural part than

human failure. They are small places that do not allow good visualization of pumps, beds, and monitors, in addition to overcrowding, lack of appropriate materials, and lack of knowledge to build the hospital structure (06 NT).

I think that the physical conditions of the hospital are poor, both electrical installations and physical space. Using scrapped materials makes it difficult to provide care without taking risks for patients.

Furthermore, they mention that materials and equipment used in NICUs might also be risk factors for the rupture of patient safety. Some materials acquired by the hospital are not always appropriate to neonates and might cause them harm due to their fragility. In addition, old equipment without proper maintenance might lead to false situations and end up determining inappropriate measures and treatments to neonates, as shown below:

Drip of parenteral nutrition in an infusion bomb. It was correct at the beginning, but at the end, it showed a higher flow than initially! (02 N).

We are now working in a reduced area [the unit was under renovations during data collection]. The whole infrastructure is missing. We do not have an area for an eventual emergency. The cradles are old and broken, and equipment is obsolete (05 NA).

Poor quality equipment is constant: serum kits, scalpels, and even adhesive tapes with no adherence used to puncture and fix a peripheral venous access. Sockets with more than one use in a same patient using extension cords, in addition to constant electrical shocks in employees and even newborns (20 NT).

Another risk factor that interfere with patient safety was the lack of professionals in the service due to sick leaves, since employees are not replaced, which leads to an increase in working hours for those who are already on duty. They mention that work overload and fatigue of NICU professionals are constant factors that affect safe care, as reported below:

A lot of sick leaves and employees covering 24 to 30 consecutive hours (03 NT).

Work overload; stress; absence of professionals; demand beyond limits! (08 N).

Lack of professionals, fatigue, and materials with excessive use (24 P).

Challenges in the communication of errors associated with health care

The professionals understand that errors in care may expose neonates to harm and communication of these events is necessary for the improvement of services. However, they mention that when an error occurs, there is no opportunity for discussion and search for solutions. They also mention that there are different measures adopted before situations of errors, depending on the professional category that committed the errors:

We do not discuss errors; we do not learn with them; corporatism covers errors (28 P).

The measure to be adopted towards the error depends on the professional's job position (01 NT).

The events are often reported verbally, which makes it difficult to know how they did happen. I think they should be reported and divulged to everyone, so we all have the opportunity to know and pay more attention to procedures to improve patient safety (04 NT).

In addition, the professionals think they are able to identify the main problems associated with the rupture of patient safety, because they are directly related to the care provided and understand that communication of these problems is essential. However, they point out that when there is communication of an error, the team does not receive feedback to promote learning and there is no guidance towards the search for solutions. They also mention that communication of risk situations is not always encouraged by managers.

Therefore, the team suggests the use of spaces allowing members of the team to communicate errors and situations of danger for patient safety, as an alternative to improve the sharing of situations of errors in care. Based on this, it would be possible to propose the joint development of solutions among all members of the team and managers to promote learning so risk situations may be prevented. This context may be observed in the following reports:

The team who is in charge visualizes and communicates problems, but unfortunately, the management does not provide the necessary guiding! We are often exposing patients! (15 N).

I think that in a session, we must interact with several professionals and be communicated of the events. However, we do not hold meetings to discuss changes or measures to prevent accidents (events). The medium level is not privileged with work meetings, only the high level. That is why matters on events are restricted to high levels and management (21 NA).

We no more hold meetings with employees and management to improve quality of work, complaints on several matters, as well as ideas for its improvement. I believe that meetings with all employees and management improve quality of work in 50%. (09 NT).

■ DISCUSSION

Based on the results obtained, patient safety in NICUs reflects the relevance of the theme in the context of safe care for neonatal patients from the point of view of nursing and medical professionals. These professionals understand the risks inherent to services and that providing safe care must be part of their daily work. However, they mention that patient safety is not always adopted with the same priority by professionals.

Therefore, they raise the need for institutional investments to promote matters on patient safety. These institutional investments, with the purpose of developing safe healthcare systems, must include both healthcare professionals and management professionals, and everyone should be responsible for patient safety. In addition, the management of institutions must provide the necessary resources and structure to promote patient safety, and consider that safety has priority over financial and operational goals of the institution, contributing to the development of a patient safety culture⁽¹³⁾.

In parallel to the perception on patient safety, the participants pointed out several potential factors to risk situations that predispose to the occurrence of adverse events. Although assurance of better quality and safety in healthcare services is standardized by the Brazilian legislation, difficulties with the physical structure of NICUs, obsolescence of equipment and materials available, and lack of healthcare employees in NICUs are characterized as risk factors and predispose to the occurrence of errors.

It is worth mentioning that these risk factors corroborate findings of a systematic literature review, showing that the working conditions of services and work overload of professionals are the main factors that affect patient safety⁽¹⁴⁾. This perception approaches an essential aspect to be discussed about NICUs, since the legislation

establishes the organization of healthcare services to promote and ensure safety.

Therefore, adequate structures of NICUs are configured as a prerequisite for patient safety. According to Decree no. 930 of May 10, 2012 of the Brazilian Ministry of Health, NICUs must comply with adequate environment and physical structure, abiding by the standards of the Brazilian National Health Surveillance Agency (ANVISA, as per its acronym in Portuguese). Provided with the minimum required physical structure, human resources and materials, this decree qualifies type II and type III NICUs. For this purpose, healthcare services must have specialized multidisciplinary teams, proper specific equipment, and appropriate therapeutic and diagnostic technology for hospitalized neonates⁽¹⁵⁾.

However, as reported by the study participants, errors with equipment and materials are often offering risks to patient safety in NICUs. They highlight problems with equipment and materials used in infusion therapy, such as drips, infusion bombs, and material to fix venous punctures. It is worth mentioning that newborns often use drug therapy and parenteral nutrition in millimeter doses, and problems with the materials used might cause unexpected alterations in patients' clinical conditions.

A study that identified errors in drug therapy showed that wrong infusion rates might be associated with inappropriate programming of infusion bombs, and this situation is identified as one of the main causes of medication errors⁽¹⁶⁾. Therefore, the lack of qualification of professionals regarding the programming of equipment, combined with the lack of maintenance and poor quality indicated by the study participants might maximize the occurrence of errors.

Equipment and materials used in health care should not compromise the safety of patients and professionals. For this purpose, these products must present quality and safety standards, as established by existing regulations and legislation. When professionals identify risks to safety associated with equipment and materials, an important tool in the prevention of errors is the notification of adverse events and technical complaints to the respective sectors⁽¹⁷⁾.

With regard to the number of professionals in NICUs, it is worth mentioning that nursing and medical teams play a major role in the prevention of adverse events, by means of continuous monitoring of patients. Therefore, it is understandable that the reduction in the number of these members negatively affects patient safety, since the lack of professionals reflects on work overload, stress, and fatigue⁽¹⁸⁾.

Considering this, it is important to highlight that most participants presented weekly work hours less than 39

hours. However, a lower but significant number of professionals presented weekly work hours between 40 and 99 hours to supply the lack of professionals in work shifts.

Consequently, when combining the lack of professionals with high demands in NICUs, the number of patients per professional may be higher than the recommended, causing work overload and higher possibilities of errors. Corroborating this finding, a study carried out in two NICUs showed that the higher the number of neonates in relation to each nursing technician, the higher the occurrence of adverse events. It highlighted, for example, the occurrence of adverse events associated with mechanical ventilation, which doubled when the number of neonates per nursing technician was higher than 3.8, and tripled when this ratio achieved 4.8 neonates per nursing technician. The same situation was identified with nurses, in which the risk for adverse events tripled when the number of neonates was higher than 11 per nurse⁽¹⁹⁾.

However, the Brazilian legislation mentions that NICUs must have a minimum team, with an appropriate number of professionals, aiming at the safety of care processes. This minimum team must be made up of: one technical attending physician; one physician with a minimum of four daily work hours for each 10 beds; a nursing aide for each 10 beds per shift; one physiotherapist for each 10 beds per shift; at least one nursing technician for each 2 beds per shift; one speech therapist responsible for the unit; one employee responsible for the cleaning⁽¹⁵⁾.

With regard to the context of communication of events in NICUs, a significant number of events were not communicated or notified, and were only mentioned in informal talks without learning intention. Therefore, the communication of errors may not happen due to the lack of clarification about the importance of patient safety or due to underreporting related to a culture of blaming the professional who committed the error, thus affecting analysis in search for solutions⁽¹³⁾.

In the literature, a study carried out in an NICU also reflects this problem. In the study, there was a low percentage of communication of adverse events, expressed by 775 events, representing a prevalence of errors of 1.1% of the total of hospitalizations. However, there was an increase from 0.7% to 1.7% in the number of communications of errors in four years. As a factor that contributes to the low percentage of communications of errors, the study mentioned the notification model used, in which professionals who committed the errors had to identify themselves. They give up communicating errors for fear of punishment⁽²⁰⁾.

A similar result was found in a study that showed the low incentive for the detection of failures and errors in the

health system as a factor that hampers the communication of errors in NICUs. The concern of professionals regarding the attitude of managers in disregarding the communication of errors as a positive strategy for safety is clear. Once more, it is worth mentioning that although the communication of errors is a responsibility of the whole team, the hospital management has to assume its leadership role, encouraging and implementing a safety culture that is able to approach errors in a systemic rather than punitive way⁽¹¹⁾.

The communication of errors is an important strategy to fight failures in the system, and must be encouraged by hospitals in search for improvements in their service. The development of a safety culture that prioritizes the communication of errors is of utmost importance for analysis and establishment of joint actions that value the implementation of safety barriers in the healthcare system.

However, the results obtained show that professionals present a certain difficulty in recognizing errors and failures in the system, showing weaknesses in the safety culture of these institutions. The development of a safety culture that promotes the understanding that healthcare systems are institutions of risk and that professionals are susceptible to committing errors and failures may establish positive advances in patient safety. When encouraging a safety culture that considers that errors may occur due to conditions of the healthcare system, the process of communication of errors is consequently encouraged. Therefore, it is possible to promote organizational learning, characterized as a continuing cycle of action and reflection that enables hospitals to learn with their experiences, and also to develop and promote the ability for reflection on the dynamics of the system, directing to the change of their own perception on patient safety. However, insistence on traditions and fast solutions for the resolution of existing problems may inhibit more effective forms of organizational learning⁽²¹⁾.

Another important aspect reported by the participants in the study was the need for update on patient safety, and this theme is in continuous ascension and determines quality of care. Most participants in the study had more than 10 years of work in the profession, and this factor determines professional experience and refers to the need for update, since patient safety is a recent theme in academic resumes.

Studies show that qualification, training, and update on patient safety, both for students and working professionals, improve the knowledge on the theme, in addition to showing significant changes in attitudes and skills for promotion of patient safety⁽²²⁾.

Therefore, the present study allows to verify that although professionals point out patient safety as an im-

portant measure for quality of care, there are institutional factors that hamper the implementation of safe care. Part of this matter is associated with the inadequacy of a safety culture inside institutions, making it difficult for the communication and correction of weaknesses in the care process to take place.

■ FINAL CONSIDERATIONS

Patient safety is understood by nursing and medical professionals of NICUs as a matter of great relevance in the context of these units, considering the importance in the provision of safe care and identification of existing risk factors that predispose to errors, and these factors are associated with conditions of the work environment, supply of materials, and lack of employees. In addition, professionals point out the need for incentive for the communication of events in order to jointly develop strategies for the prevention of errors and promotion of a safety culture, as well as the need for qualification and update on patient safety.

Therefore, according to the present study, it is possible to identify the main strengths and weaknesses in safety in NICUs, aiming at planning and implementing actions of change in these units, with the purpose of improving care in the context of safety and quality of services. The present study also points out the need for continuing teaching and education based on patient safety to promote the development of a safety culture, especially in units with more complexity of care, such as NICUs.

The limitation of the present study was the reduced number of professionals invited to participate in it. Although it was a significant number, with possibility of achieving data saturation, there was low adherence of professionals to respond to the qualitative cut-off of the instrument that originated the results of this study.

Based on our findings, the development of studies in other hospital units is essential to understand patient safety from the perception of professionals, making it possible to identify an overview of safety, as well as its strengths and weaknesses. Consequently, it becomes possible to discuss and develop strategies to improve safety in healthcare institutions, thus ensuring quality care.

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