

Perception of the multi-professional team regarding the safety of pediatric patients in critical areas

Percepção da equipe multiprofissional quanto à segurança do paciente pediátrico em áreas críticas

Percepción del equipo multiprofesional respecto de la seguridad del paciente pediátrico en áreas críticas

**Fernanda Stroeher Pereira^I, Marina Scherer Silveira^{II}, Letícia Maria Hoffmann^{III}
Merianny de Ávila Peres^{IV}, Márcia Koja Breigeiron^V, Wiliam Wegner^{VI}**

Abstract: Objective: to know the perception of the multi-professional team regarding the strategies for the safety of pediatric patients in critical areas. **Method:** a qualitative and exploratory-descriptive study carried out in pediatric intensive care and emergency units of three hospitals in the city of Porto Alegre, between November 2018 and March 2019, linked to the matrix project entitled “Patient safety in hospital care services for children and adolescents in the city of Porto Alegre”. A total of 20 practitioners who worked in these areas and who had experience in pediatrics for at least one year were included. Five collective interviews were conducted, which were audio-recorded and later transcribed for content analysis. **Results:** three categories arose: Maintenance of adherence to the protocols/goals of pediatric patient safety, Teaching/education in patient safety, and Involvement of companions for the promotion of patient safety. **Conclusion:** the practitioners acknowledge that the strategies described demonstrate minimal conditions to reach care quality and incident prevention, essential for patient safety.

Descriptors: Patient safety; Child, hospitalized; Health personnel; Health services; Organizational culture

Resumo: Objetivo: conhecer a percepção da equipe multiprofissional sobre as estratégias de segurança do paciente pediátrico em áreas críticas. **Método:** estudo qualitativo exploratório-descritivo realizado em unidades de terapia intensiva e emergências pediátricas de três hospitais da cidade de Porto Alegre, entre novembro/2018 a março/2019,

^I Nurse. Nursing School, Federal University of Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil. E-mail: naandapereira18@hotmail.com Orcid: 0000-0002-8248-5608

^{II} Nurse. Nursing School, Federal University of Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil. E-mail: schereremari07@gmail.com Orcid: 0000-0002-7219-6351

^{III} Nurse. Master student in Nursing. Graduate Program of the Nursing School at the Federal University of Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil. E-mail: leticiamhoffmann8@gmail.com Orcid: 0000-0002-0700-1714

^{IV} Nurse. MS in Nursing. Graduate Program of the Nursing School at the Federal University of Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil. E-mail: merianny.peres@gmail.com Orcid: 0000-0002-6362-7076

^V Nurse. PhD in Biological Sciences/Physiology. Associate Professor. Department of Maternal and Child Nursing of the Nursing School at the Federal University of Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil. E-mail: mbreigeiron@gmail.com Orcid: 0000-0001-6546-8868

^{VI} Nurse. PhD in Nursing. Adjunct Professor. Graduate Program of the Nursing School at the Federal University of Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil. E-mail: wiliam.wegner@ufrgs.br Orcid: 0000-0002-0538-9655

vinculado ao projeto matriz “Segurança do paciente nos serviços de atenção hospitalar às crianças e adolescentes na cidade de Porto Alegre”. Incluídos 20 profissionais que atuam nessas áreas e possuem experiência na pediatria de pelo menos um ano. Realizou-se cinco entrevistas coletivas, gravadas em áudio e após transcritas para análise de conteúdo.

Resultados: surgiram três categorias, Manutenção da adesão aos protocolos/metras de segurança do paciente pediátrico, Ensino/educação em segurança do paciente e Envolvimento dos acompanhantes para promoção da segurança do paciente. **Conclusão:** os profissionais percebem que as estratégias descritas demonstram condições mínimas para alcançar a qualidade da assistência e prevenção de incidentes, essencial para segurança do paciente.

Descritores: Segurança do paciente; Criança hospitalizada; Pessoal de saúde; Serviços de saúde; Cultura organizacional

Resumen: Objetivo: conocer la percepción del equipo multidisciplinario sobre las estrategias de seguridad del paciente pediátrico en áreas críticas. **Método:** estudio cualitativo descriptivo y exploratorio realizado en unidades de cuidados intensivos y urgencias pediátricas de tres hospitales de la ciudad de Puerto Alegre, entre noviembre de 2018 y marzo de 2019, vinculado al proyecto matricial “Seguridad del paciente en servicios de atención hospitalaria para niños y adolescentes de la ciudad de Puerto Alegre”. Se incluyó a 20 profesionales que trabajaban en estas áreas y tenían al menos un año de experiencia en pediatría. Se realizaron cinco entrevistas colectivas, grabadas en audio y luego transcritas para análisis de contenido. **Resultados:** surgieron tres categorías: Mantenimiento de la adherencia a los protocolos/metras de seguridad del paciente pediátrico, Enseñanza/ educación en seguridad del paciente e Implicación de los acompañantes para promover la seguridad del paciente. **Conclusión:** los profesionales perciben que las estrategias descritas demuestran condiciones mínimas para alcanzar la calidad de la atención y prevención de incidentes, imprescindibles para la seguridad del paciente.

Descriptores: Seguridad del paciente; Niño hospitalizado; Personal de salud; Servicios de salud; Cultura organizacional

Introduction

The discussion to institute the safety culture in critical pediatric units is imperative, given that all these units are predisposed to errors and flaws, which can be associated with the organization and physical structure, the particularities of the assistance provided to these patients due to severity, and the scarcity of research studies related to the critical pediatric patient.¹ The critical care units for children and adolescents are those with the highest level of occurrence of adverse events, for being very complex and stressful environments.²

In the current scenario, millions of people are subjected to suffering disabling harms and lesions or even die due to flaws and errors arising from unsafe health practices.³ Nearly 400,000 people die every year due to adverse events that could be avoided, and between 2 and 4 million of these cases cause considerable impacts on the patient’s health, although not always ending in a fatal outcome. Comparing with adults, hospitalized children and adolescents present

three times more chances of suffering some type of harm.⁴

The concept of patient safety came to be established by the World Health Organization (WHO) in 2009, as the reduction of inconvenient risks and harms to the patient, concerning health care to a minimal considerable level or, in a more current description, as the absence of avoidable harm to the patient throughout the care process.³ Ordinance No. 529/2013 of the Ministry of Health presents a set of measures that must be elaborated and implemented by the health institutions, the so-called international goals for patient safety, aiming to improve care in all the Brazilian health services.⁵

The involvement of the multi-professional team in this issue is paramount, given that it corresponds to the largest workforce in the health services, and debating with the various categories can establish changes in the care scenarios, remodeling the health system, and increasing patient safety.¹ Work in a multi-professional team implies significant changes in theories, methods, concepts, and even practices, so that the most varied knowledge areas work articulated and integrated among themselves and with the whole.⁶

Care measures with high quality and particularities provided with the necessary safety to the patient will depend on the organization and leadership of an efficient multi-professional team. The activities for sizing a capable health staff, and mainly work with the various professional categories, is indispensable to the safety of the pediatric patient, especially in critical areas.⁷ Communication among the health workers constitutes a patient safety culture in daily care, reducing the number of errors and improving the care offered.⁸

The debate and reflections on the perception of patient safety can collaborate in the improvements of hospital processes and services. It is highlighted that pediatric patients show to be more vulnerable and exposed to several risks during hospitalization. From this perspective, the research question is the following: What is the perception of the multi-professional team about patient safety and the strategies used for the safe care of children and adolescents hospitalized in

critical areas of the hospital services in the city of Porto Alegre, Rio Grande do Sul (RS)? The objective is to know the perception of the multi-professional team regarding the strategies for the safety of pediatric patients in critical areas.

Method

The study refers to research with a qualitative approach and exploratory-descriptive design. It is linked to the research matrix project entitled “Patient safety in hospital child care services in the city of Porto Alegre/RS”, which has the objective of analyzing patient safety in pediatric health care from the perspective of managers, health professionals, and companions of the hospitalized children and adolescents. In this study, a survey was conducted of information captured from databases from the interviews conducted with the health professionals in the intensive care therapy and pediatric emergency centers.

The survey took place in three emergency units and three pediatric intensive care units (ICUs) from Porto Alegre, as they are a remarkable reference in care and because they offer care services by the Unified Health System. The health institutions were designated by letters and numbers in order to protect identity (H1, H2, and H3).

The study population included practitioners from the multi-professional team who work in the care of children and adolescents hospitalized in pediatric emergency and ICU in the listed institutions. The sample was intentionally selected by sending invitations to the professionals working in these units. Two meetings were scheduled in each institution (E1 and E2), morning and afternoon shift, with free choice to participate in either. The number of participating professionals was determined by demand on the day of the interviews. The participation of at least two representatives from each professional category was estimated in each interview, a number that could be larger/smaller, according to the population’s adherence to the research. However, the estimate did not contemplate all the categories due to non-adherence, and in one health institution

there was only one meeting. The interviews were attended by the scholarship fellows, including the researcher and the participants, exclusively. The information saturation criterion was adopted to end the interviews.⁹

There was participation of a management assistant, nursing technicians, nurses, managers, pharmacists, pharmacy technicians, and a psychologist. In total, 18 health professionals participated, among them: 12 nursing technicians, 3 nurses, 2 pharmacists, and 1 psychologist, in addition to 2 workers from the management sector.

The inclusion criteria were professionals who were assisting children and adolescents in the data collection period and with at least one year of experience in Pediatrics. The exclusion criteria were those who were away from their activities or on vacation during the data collection period.

The interviews were carried out in a reserved room in each institution, to preserve the privacy of the professionals, ensuring freedom to express opinions. The collection of the information took place by means of collective semi-structured interviews, recorded in voice devices, and with an approximate duration of one hour and a half each meeting. Subsequently, they were fully transcribed into *Microsoft Office Word*[®] and analyzed. The transcriptions will be stored for five years and then deleted, according to Resolution 466 of the National Health Council, which rules on research with human beings.

The information was collected between November 2018 and March 2019, by a team of scientific initiation scholarship fellows – the main researcher was also present during the interviews – from a higher education institutions, properly trained for moderation in single meetings with each group, addressing patient safety aspects in the care of children and adolescents, the occurrence of incidents during care, participation of the companions, safety actions and institutional protocols. The information collected during the interviews was not complemented by using field notes. The interviews were conducted after a pilot test with family members and companions of patients by applying the instrument's guiding questions, with comprehension of the

themes and questions being later assessed by scholarship fellows of the research group. No adjustment was identified or suggested.

For data analysis, information from the interviews was used which referred to the strategies for the safety of pediatric patients with the practitioners of the multi-professional team for hospitalized children and adolescents. Thematic-type content analysis was applied.⁹ The tool for information organization and storing in specific categories was the QSR NVivo[®] software, version 11.0.

The ethical principles respected the Guidelines and Regulating Norms of Research in Human Beings of Resolution 466/2012, Resolution 510/2016 and Resolution 580/2018 of the National Health Council. Two copies of the Free and Informed Consent Form were signed, and one was handed in to the study participants. The research project was approved under opinion No. 1,072,189 in the Ethics and Research Committee of the Federal University of Rio Grande do Sul (*Universidade Federal do Rio Grande do Sul*, UFRGS) under CAAE number 43549115.0.0000.5347, dated 05/21/2015; approved under opinion No. 1,175,995 in the Ethics Committee of the Clinical Hospital of Porto Alegre (*Hospital de Clínicas de Porto Alegre*, HCPA) under CAAE 45330815.7.0000.5327, dated 08/07/2015; approved under opinion No. 1,221,489 in the Ethics Committee of the Nossa Senhora da Conceição Hospital, under CAAE 48292715.9.0000.5530, dated 09/10/2015; approved under opinion No. 1,383,292 in the Ethics Committee of the Santo Antônio/Santa Casa Children's Hospital, under CAAE 51018915.5.0000.5683, dated 01/04/2016.

Results

The analysis process generated three categories: the first, called Maintenance of adherence to the protocols/goals of pediatric patient safety, contemplated nine subcategories that describe the strategies for pediatric patient safety in critical areas from the perception of the multi-professional team. The second and the third categories did not contemplate any subcategories and portray the

Teaching/education in patient safety and the Involvement of companions for the promotion of patient safety, both problematizing fundamental aspects for safe care.

Maintenance of adherence to the protocols/goals of pediatric patient safety

Adherence to goals of patient safety has the fundamental objective of providing a care environment increasingly safer to the hospitalized patients. The strategies for care quality are directly related to the implementation of the protocols that seek to minimize the consequences related to safety incidents. The multi-professional team that participated in the study identified and recognizes the initiatives that seek to provide patient safety. In the context of child hospitalization, it is essential to mobilize the professionals for adherence and strengthening of the protocols already established by national/international bodies.

In the safe medication process, medication incidents stand out among the most frequent in health care. The patients illustrate the following as strategies: checking the medical prescriptions, attention at the time of administration, professional practice experience, following all the “rights”, and checking the identification bracelet:

[...] doses wrongly prescribed by the doctor, only with a good long time of experience you know that it is too much for the patient. (H3E2)

[...] more attention at the time of administering of the medication, looking pretty attentive, because sometimes we do it automatically. (H3E2)

Another speech portrays the relationship between the rational use of antimicrobials and the delay in initiating adequate treatment:

[...] the medication was not being effective because the use of antibiotic was delayed, if it had been used in time. (H3E2)

The participants spoke of double-checking with colleagues and of exchange of information with the hospital pharmacist:

[...] the staff has the habit of double-checking, when they think the dose is too high or too low, you ask the colleague, if it is a different medication you call the pharmacy. (H1E2)

The companions can share the care provided with the health team, by telling pertinent information for the care of the patient:

[...] many times, you prepare the medication and the mother says: he is allergic; if you come and do not say what you are doing, safety is over. When the patient is admitted, they ask about allergies, sometimes the mother is nervous and forgets some, that is why it is important before administering a medication to say so. (H2E1)

When the patients are referred to surgical procedures and/or interventions, it is necessary to follow stages that include checking the patient's identification data and the verification of the safe surgery list. The participants mentioned the need to ensure the correct surgery and procedure:

[...] when the patients are referred to the surgical ward, there are barriers, so as not to do the procedure on another patient, they welcome the patient, look at the bracelet, ask them if they are the correct patient and procedure, look at the chart number. (H3E1)

To ensure safe care to children and adolescents hospitalized in critical areas, the organization of the work process becomes fundamental, as it eases the understanding of methods that optimize the daily professional practice, in a correct and organized manner to improve care. The participants report the practice of checking the folders, event notifications, and development of safety barriers to improve the service:

[...] when there are two patients with the same name, we try not to put them close to each other and place a sign with the name in bigger letters. (H1E2)

[...] today there is the adverse event notification form, even if it were a possible error that did not occur. (H3E1)

Another practice for an effective work process is reading the Standard Operational Processes (SOPs), following the norms and routines, training the health team, and giving feedback

after the activities:

[...] all the norms, routines, and procedures, even if they are a habit, read the prescription until the end, check anything, wash the hands, and lift the railing. (H3E2)

[...] it refers to those Joint steps, if you follow that, you are hardly going to make mistakes. Much changed after I started following the goals. (H3E1)

[...] it was some feedback for us to see, as a team, what was done wrong and what can be improved following that. (H1E2)

Teamwork, the management, the division of activities, and adequate staff sizing for the safe care of pediatric patients were discussed:

[...] every two months a team meeting occurs, every six months a general meeting, they take data of things that happened, of things that could be done to not let that happen again. (H3E1)

[...] the issue of the patients themselves, their body, we take care of each other, avoiding falls, medication, always together with a colleague, working and observing. (H1E2)

[...] this safety in the ICU starts at admission, from the entrance, the reception of the patient, family members, and then comes the responsibility of knowing what you are doing, knowing how you will do it. (H1E2)

[...] they even investigate how the shift situation was, if the number of employees was adequate, if it was stressful. (H2E1)

The implementation of measures to prevent falls were discussed by the participants, such as maintaining the bed railing up, observing the patient's age, and guiding the family members as for the need to care about falls:

[...] never leave the railing down, warn the family members, they sometimes say: I'll be right back, nothing is going to happen. Even so, the railings need to be lifted. (H3E2)

Patient safety is a collective responsibility of the multi-professionals team, as well as the support and help of the companions and the patients themselves:

[...] it is everyone's responsibility. Acting calmly, attentively, not in a rush, you

have to stop, reason, make a correct reading and solve doubts. (H1E1)

[...] to the family members, to the professionals in general, multidisciplinary, it is not just one, it is everyone. (H1E2)

The professionals emphasized the importance of sharing information with the entire team that provides care to the hospitalized children and adolescents, known as *round*:

[...] what happened in the last years is very important, the performance of the professional in the rounds, where there will be the nutritionist, pharmacist, physiotherapist, nursing team [...] everyone being able to contribute.(H3E2)

Correct hand hygiene is pointed out worldwide, and also by the participants, as the most effective method for the prevention of infections, as well as the use of alcohol gel:

[...] hand hygiene, if you do not wash them, you can pass germs on to other patients, this is patient safety. (H3E2)

[...] of the hygiene that has to be done, the importance of hand washing. But, sometimes you are there, the alcohol gel dispenser is right there and it is fairly quick. (H1E1)

Improving effective communication is important for the follow-up of safe care to the patient, ensuring that the receiver understands the information to reduce the emergence of incidents:

[...] communication is very important between the teams, between the various hospital sectors. (H3E1)

[...] the mother says that the child had an allergic reaction and even so there was lack of communication, actually, however, it was not effective. (H3E2)

[...] lack of communication between the people, of repeating and listening. There was communication, it simply was not clear. (H1E1)

Observing the correct identification of the patient such as the use of an identification bracelet, containing the complete name and chart number. They must be confirmed before any care is provided:

[...] you identified the bed number, the bed number you do not identify, because the patient can change. The ideal is the bracelet, complete name, date of birth, chart number. (H1E1)

[...] to explain why they have to use the bracelet, because I ask the name every time I enter the room; because I check their bracelet every time, today we talk a lot, load the family members with information. (H3E1)

When treating patients who need to stay in bed for a long period of time, or those that represent difficulty in mobilizing on the bed, one of the major concerns is with the prevention of pressure ulcers, being necessary to implement strategies such as decubitus change, use of appropriate mattresses and keeping the skin hydrated:

[...] I had a patient that could not move, he got full of ulcer, you kind of have to see, if it was not possible till a certain point, minimum handling, but the part that we could lateralize a little. (H3E2)

[...] with the taller patients who cannot move, apply the films to all the bony prominences, the pneumatic mattresses, keep hydrated, decubitus change, identify hyperemia. (H2E1)

Teaching/education in patient safety

Teaching and education in patient safety were presented as the construction of knowledge by means of the teaching-learning process, development of critical attitude in the face of the facts, and promotion of actions for the improvement in the care provided to the patients. The interviewees reported the importance of learning from the errors and seeking a way to prevent them from occurring again:

[...] I needed to impact because there were many things that needed to be changed, this was good for the unit because we started discussing safety. Many times it was warned that it could happen, until one day when all barriers were broken, the mistake was made and the patient died. (H3E1)

[...] a very nice attitude is for you to have the error with you, share with others that this happened, which can be the silliest thing, pay attention and so on, guide a colleague and the colleague guides another person. (H2E1)

The search for knowledge and the interest in continuing to evolve always to improve care quality, permanent education and the training in the health institutions, with the inclusion of

patient safety, are of great importance for safe care:

[...] education is the best way to instruct, raise awareness, explain the risks, what could have happened. Sometimes the person does not know the severity of what the harm would be. So educate so that they learn, then they will pass it on to others. (H2E1)

Involvement of companions for the promotion of patient safety

The involvement and participation of the companions help in the quality of the care provided to the hospitalized pediatric patient, sharing information and contributing with the team to improve the service:

[...] sometimes when you go to give medication, it is at the bedside that you know the patient has allergies. I was going to administer an antibiotic that was prescribed, the patient had a white bracelet, I told the mother that I was going to put the antibiotic. She said: "he is allergic". If she hadn't been there, if I hadn't said anything I would have given what was prescribed. (H3E2)

[...] people do not value what the parents say, only they know much about their children, people trivialize that, they should pay more attention when the parents speak. (H3E2)

The companions also contribute as barriers to incidents throughout the hospitalization of children and adolescents:

[...] first, the child is always accompanied, this is a protective barrier for us, father and mother make up a very important barrier. (H3E1)

Discussion

The process of interpreting the results allowed us to know the strategies implemented by the multi-professional team for safe care. The strategies for safe care referring to the drug therapy are simple and can be reinforced with the team, such as patient identification, checking the "rights" of the medication, in addition to attention/concentration during the reading/interpretation of prescriptions. It is paramount to highlight that medication errors can be identified and avoided in

all the stages, being the multi-professional team's responsibility.¹⁰ Safe care for children and adolescent hospitalized in critical areas must be initially instituted with simple and cost-effective measures.

Quick decision-making in critical areas sometimes presents communication flaws in sending, receiving, and interpreting information, with the patients subjected to any type of risk.¹¹ Delay in care makes the therapy process non-effective for the improvement of the clinical condition, and it also generates additional costs for the health institutions.

Checking the medication that will be administered and double-checking with the pharmacist to avoid possible errors are attitudes to strengthen the safe practice.¹² These are some safety barriers during care given that, in critical settings, children and adolescents are more vulnerable. The empowerment of the companions and patients in decisions regarding the indicated therapy also constitutes a barrier for the prevention of incidents, by means of questions and inquiries to the health team about the care to be provided.¹⁰

The correct use of the safe surgery checklist shows the capacity for the production of positive effects in the patient, improving the care to be provided, favoring safer practices, and reducing the number incidents and unfavorable outcomes.¹³ These simple and very important steps make the procedures safer and reduce harms to the patient.

In the pediatric hospitalization, children and adolescents present greater risk of harms due to several aspects, such as their development, physical characteristics and dependence on others, among other aspects; therefore, it is important to implement adequate solutions for the safety of these patients.¹⁴ Notification is an excellent learning instrument for the practice of safe care, contributing to the analysis of adverse events and leading to learning.¹⁵

The SOPs, norms, rules, and flows help in the organization of work, improving the care practice, and must be followed by the multi-professional team.¹⁶ Training improves safety, changing routine aspects, warning the professionals to reduce flaws, enhancing care, and sharing information

for its quality.¹⁷ In addition to that, an enabling learning environment becomes important as support for communication among the professionals.¹⁸

As for the deficit in staff, overloading the workday is worrisome when it comes to patient safety, as it can cause unfavorable aspects in the care provided.¹⁹ The advantage of teamwork is joint assistance between professional categories, sharing of information, and decision-making for better care provision.²⁰

Keeping the lateral railings always up and instructing the companions to follow this behavior are care measures that the teams prioritize in patient safety.²¹ The joint effort of the multi-professional team and the companions is fundamentally important for the prevention of falls. The multi-professional team has collective responsibility towards the care provided to the patients, enhancing the safety culture, a good relationship and collaboration of all members being indispensable, encouraging collaboration in benefit of safety.²²

The rounds with the multidisciplinary team provide communication between the different professional categories, enriching care with better care practices, reducing the number of incidents, and offering safer work.²³ The multidisciplinary rounds favor patient care, thinking together in the care to be provided, in the conducts and treatments for the critical pediatric patients.

The WHO shows that from 5% to 10% of the hospitalized patients acquire some type of infection during the hospitalization, and that carrying out frequent and correct hand hygiene is the main method to reduce the number of healthcare-associated infections.²⁴ Regarding the alcohol gel dispensers at the bedside and within reach of the professionals, they appears as a positive answer so that both professionals and companions can use them with easy access.²⁵

Clear communication during health care is fundamental for patient safety; however, there are difficulties that must be overcome, such as the understanding ability. Efficient communication can prevent harms to the patient, avoiding unfavorable outcomes.²⁶ Patient identification is the first international goal for patient safety regarding safe service in all the health institutions, aiming to

provide care to the correct patient. The identification bracelet must contain at least two identifications, be white, placed on one of the patient's limbs, and be analyzed before any care is provided.²⁷

The actions for the prevention of pressure ulcers would be the use of the Braden Q scale (it assesses the pediatric patient's risk for developing pressure ulcers), using pyramidal mattresses, moisturizing the skin with appropriate products, protecting the areas of bony prominence, and decubitus change.²⁸ Therefore, the first measure adopted is to perform the evaluation of the patient's risk at least once a week, inspect the skin regularly and frequent decubitus changes.

The category entitled Maintenance of adherence to the protocols/goals of pediatric patient safety showed that the daily routines to be followed and incorporated by the entire multi-professional team that provides care to severe patients improve the safety culture. Following protocols of the goals for patient safety guides the qualification of the care provided; therefore, it is necessary to update them.

The training of the professionals must enable reflection about their work, turning them into a subject capable of critical thinking, learning, and sharing their knowledge with others, impacting every day on the quality of the care provided to the patients.²⁹ Education and the learning process allow the professionals to work with more confidence, especially when they are dealing with severe and unstable patients.

Teaching and education are present in people's everyday lives, and this is no different in the health area. The professionals are constantly teaching and learning, through conversations, knowledge exchange, and by receiving new information. It is necessary to invest in education even during professional training, discussing contexts and possibilities of methodologies that empower these professionals.³⁰ The multi-professional team must exchange knowledge, experiences and ideas to improve the quality of care provided to pediatric patients in a critical setting.

The category called Teaching/education in patient safety reinforces that education and

teaching in patient safety can collaborate in the instrumentation of the professionals for the care of critical patients, since theoretical knowledge, practical ability, and proactive attitudes are necessary for patient safety. This perspective advocates learning from the errors, which can help in the recognition of incidents and in the development of strategies to avoid the recurrence of failures.

The participation of the companions during care is of paramount importance in the context of patient safety. It reflects the approximation between companions and the team, helping in the patient's treatment and in the reduction of possible incidents, by observing and questioning, turning them into care supervisors.²¹ The active participation of the companions goes much beyond providing support, affection, and comfort; an attentive look is important when the team provides care to pediatric patients in critical settings.

The category entitled Involvement of companions for the promotion of patient safety showed how relevant their participation is for the promotion of patient safety, becoming a care barrier. The need for this proximity to the professionals contributes to the engagement of family members in the safety of the critical pediatric patient.

The limitations of this study were related to the difficulties in obtaining the adherence of different members of the multi-professional team to the scheduled meetings, with no participation of physicians, physiotherapists, social workers, or nutritionists. These professionals play an essential role in health care in critical settings such as pediatric emergency units and ICUs.

Conclusion

This study allowed us to know the strategies to improve and promote pediatric patient safety in the hospital contexts in critical areas from the perception of the multi-professional health team. All the examples described deserve to be highlighted as they are simple, cost-free measures and already provided for by the institutions.

All the multi-professional team that provides care to these patients plays an important role

in changing this scenario, for being a complex environment and of rapid decision-making. The recognition and identification of the risks to which children and adolescents are exposed and the implementation of good practices in the services provided are barriers to promote pediatric patient safety.

The strategies found show some weaknesses that still persist but, above all, find means that structure safer care to be provided to hospitalized children and adolescents. It is important to strengthen the techniques in the critical areas and to stimulate adherence to protocols of patient safety by all the professionals, making work more effective and qualifying the care provided in these institutions.

It is recommended to discuss the approach involving safety modes for pediatric patients in critical areas also during the undergraduate studies of the professionals, conferring continuity to the permanent education actions of the health institutions. New studies need to be carried out so that higher safety levels are reached, reducing the incidents and harms that surround the health care provided to the pediatric population.

The authors expect that the reflections of this study contribute to widening the discussions about safe care and, this, guide better assistance actions, contributing to Nursing teaching and research in the patient safety area.

References

1. Macedo TR, Rocha PK, Tomazini A, Souza S, Anders JC, Davis K. The culture of patient safety from the perspective of the pediatric emergency nursing team. *Rev Esc Enferm USP*. 2016;50(5):757-63. doi: 10.1590/S0080-623420160000600007
2. Valera IMA, Oliveira JLC, Pereira ACS, Dias AM, Haddad MCFL, Matsuda LM. Passagem de plantão em unidades de terapia intensiva pediátrica: interface com a segurança do paciente. *Rev Gest Saúde [Internet]*. 2019 [acesso em 2020 abr 2021];10(3):407-23. Disponível em: <https://periodicos.unb.br/index.php/rgs/article/view/27200/23646>
3. World Health Organization (WHO). World alliance for patient safety. Forward programme 2008-2009 [Internet]. Geneva (CHE): WHO; 2008 [cited 2018 Apr 25]. Available from:

https://apps.who.int/iris/bitstream/handle/10665/70460/WHO_IER_PSP_2008.04_eng.pdf

4. James JT. A new, evidence-based estimate of patient harms associated with hospital care. *J Patient Saf.* 2013;9(3):122-8. doi: 10.1097/PTS.0b013e3182948a69
5. Ministério da Saúde (BR); Fundação Oswaldo Cruz (FIOCRUZ); Agência Nacional de Vigilância Sanitária (ANVISA). Documento de referência para o Programa Nacional de Segurança do Paciente [Internet]. Brasília (DF): Ministério da Saúde; 2014 [acesso em 2020 abr 21]. Disponível em: https://bvsmms.saude.gov.br/bvs/publicacoes/documento_referencia_programa_nacional_seguranca.pdf
6. Sousa FCP, Montenegro LC, Goveia VR, Corrêa AR, Rocha PK, Manzo BF. Family participation in patient safety in neonatal units from the nursing perspective. *Texto Contexto Enferm.* 2017;26(3):e1180016. doi: 10.1590/0104-07072017001180016
7. Stocker M, Pilgrim SB, Burmester M, Allen ML, Gijsselaers WH. Interprofessional team management in pediatric critical care: some challenges and possible solutions. *J Multidiscip Healthc.* 2016;9:47-58. doi: 10.2147/JMDH.S76773
8. Castro-Rodríguez C, Solís-García G, Mora-Capín A, Díaz-Redondo A, Jové-Blanco A, Lorente-Romero J, et al. Briefings: a tool to improve safety culture in a pediatric emergency room. *Jt Comm J Qual Patient Saf.* 2020 Nov;46(11):617-22. doi: 10.1016/j.jcjq.2020.08.004
9. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14ª ed. São Paulo: Hucitec; 2014.
10. Santos PRA, Rocha FLR, Sampaio CSJC. Actions for safety in the prescription, use and administration of medications in emergency care units. *Rev Gaúcha Enferm.* 2019;40(Spec No):e20180347. doi: 10.1590/1983-1447.2019.20180347
11. Quitério LM, Santos EV, Gallotti RDM, Novaretti MCZ. Adverse events due to miscommunication in intensive care units. *Rev Espacios* [Internet]. 2016 [acesso 2019 mayo 11];37(30):19. Disponible en: <https://www.revistaespacios.com/a16v37n30/16373020.html>
12. Siqueira CL, Ferreira KM, Souza TC, Feldman LB. Sentimentos experimentados por equipes de enfermagem acerca dos erros de medicação. *Cogitare Enferm* [Internet]. 2016 [acesso em 2019 maio 27];21(N Esp):01-10. Disponível em: <https://revistas.ufpr.br/cogitare/article/view/45411>
13. Tostes MFP, Galvão CM. Surgical safety checklist: benefits, facilitators, and barriers in the nurses' perspective. *Rev Gaúcha Enferm.* 2019;40(Spec No):e20180180. doi: 10.1590/1983-1447.2019.20180180
14. Mueller BU, Neuspiel DR, Fisher ERS; Council on Quality Improvement and Patient Safety; Committee on Hospital Care. Principles of pediatric patient safety: reducing harm due to medical care. *Pediatrics.* 2020;143(2):e20183649. doi: 10.1542/peds.2018-3649
15. Paiva MCMS, Popim RC, Melleiro MM, Tronchim DMR, Lima SAM, Juliani CMCM. The reasons of the

nursing staff to notify adverse events. *Rev Latinoam Enferm.* 2014;22(5):747-54. doi: 10.1590/0104-1169.3556.2476

16. Krauzer IM, Dall'Agnol CM, Gelbcke FL, Lorenzini E, Ferraz L. The construction of assistance protocols in nursing work. *REME Rev Min Enferm.* 2018;22:e-1087. doi: 10.5935/1415-2762.20180017

17. Marinho MM, Radünz V, Rosa LM, Tourinho FSV, Ilha P, Misiak M. Educational interventions with nursing professionals and its relationship with culture of security. *REME Rev Min Enferm.* 2018;22:e-1148. doi: 10.5935/1415-2762.20180079

18. Kesselheim JC, Shelburne JT, Bell SK, Etchegaray JM, Lehmann LS, Martinez W, et al. Pediatric trainees' speaking up about unprofessional behavior and traditional patient safety threats. *Acad Pediatr.* 2020 Jul. In Press. doi: 10.1016/j.acap.2020.07.014

19. Cruz EDA, Rocha DJM, Mauricio AB, Ulbrich FS, Batista J, Maziero EC. Safety culture among health professionals in a teaching hospital. *Cogitare Enferm.* 2018;23(1):e50717. doi: 10.5380/ce.v23i1.50717

20. Casanova IA, Batista NA, Ruiz-Moreno L. Training for teamwork in multidisciplinary residency in health. *ABCS Health Sci.* 2015;40(3):229-33. doi: 10.7322/abcshs.v40i3.800

21. Peres MA, Wegner W, Cantarelli-Kantorski KJ, Gerhardt LM, Magalhães ANM. Perception of family members and caregivers regarding patient safety in pediatric inpatient units. *Rev Gaúcha Enferm.* 2018;39:e2017-0195. doi: 10.1590/1983-1447.2018.2017-0195

22. Wegner W, Silva SC, Kantorski KJC, Predebon CM, Sanches MO, Pedro ENR. Education for culture of patient safety: implications to professional training. *Esc Anna Nery Rev Enferm.* 2016;20(3):e20160068. doi: 10.5935/1414-8145.20160068

23. Guzinski C, Lopes ANM, Flor J, Migliavaca J, Tortato C, Pai DD. Good practices for effective communication: the experience of the interdisciplinary round in orthopedic surgery. *Rev Gaúcha Enferm.* 2019;40(Spec No):e20180353. doi: 10.1590/1983-1447.2019.20180353

24. Silva FM, Porto TP, Rocha PK, Lessmann JC, Cabral PFA, Schneider KLK. Higienização das mãos e a segurança do paciente pediátrico. *Cienc Enferm.* 2013 [acesso em 2019 maio 14];19(2): 99-109. Disponível em: https://scielo.conicyt.cl/pdf/cienf/v19n2/art_10.pdf

25. Magnano TSBS, Dal Ongaro J, Greco PBT, Lanes TC, Zottele C, Gonçalves NG, et al. Infrastructure for hand hygiene in a teaching hospital. *Rev Gaúcha Enferm.* 2019;40(Spec No):e20180193. doi: 10.1590/1983-1447.2019.20180193

26. Biasibetti C, Hoffmann LM, Rodrigues FA, Wegner W, Rocha PK. Communication for patient safety in pediatric hospitalizations. *Rev Gaúcha Enferm.* 2019;40(Spec No):e20180337. doi: 10.1590/1983-1447.2019.20180337

27. Bernal SCZ, Raimondi DC, Oliveira JLC, Inoe KC, Matsuda LM. Patient identification practices in a pediatric intensive care unit. *Cogitare Enferm.* 2018;23(3):e55390. doi: 10.5380/ce.v23i3.53390
28. Caldini LN, Araújo TM, Frota NM, Barros LM, Silva LA, Caetano JÁ. Evaluation of educational technology on pressure injury based on assistance quality indicators. *Rev Rene.* 2018;19:e32695. doi: 10.15253/2175-6783.20181932695
29. Fabbro MRC, Salim NR, Bussadori JCC, Okido ACC, Dupas G. Active teaching and learning strategies: perceptions of nursing students. *REME Rev Min Enferm.* 2018;22:e-1138. doi: 10.5935/1415-2762.20180067
30. Arnemann CT, Lavich CRP, Terra MG, Mello AL, Raddatz M. Health education and permanent education: actions integrating the educational process of nursing. *Rev Baiana Enferm.* 2018; 32:e24719. doi: 10.18471/rbe.v32.24719

Scientific Editor: Cristiane Cardoso de Paula

Associated Editor: Aline Cammarano Ribeiro

Corresponding author

Wiliam Wegner

E-mail: wiliam.wegner@ufrgs.br

Address: Rua São Manoel, 963, Rio Branco, Porto Alegre/RS

CEP: 90620-110

Authorship Contributions

1 – Fernanda Stroeher Pereira

Study design, data collection, analysis and interpretation.

2 – Marina Scherer Silveira

Study data collection, analysis and interpretation.

3 – Leticia Maria Hoffmann

Elaboration and critical review of the intellectual content of the study.

4 – Merianny de Avila Peres

Elaboration and critical review of the intellectual content of the study.

5 – Márcia Koja Breigeiron

Elaboration and critical review of the intellectual content of the study.

6 – Wiliam Wegner

Responsible for all aspects of the study, ensuring issues of accuracy or integrity of any of its parts.

How to cite this article

Pereira FS, Silveira MS, Hoffmann LM, Peres MA, Breigeiron MK, Wegner W. Perception of the multi-professional team regarding the safety of pediatric patients in critical areas. *Rev. Enferm. UFSM.* 2021 [Accessed on: Year Month Day]; vol.11 e42:1-20. DOI: <https://doi.org/10.5902/2179769255250>