Communication for patient safety in pediatric hospitalizations

Cecilia Biasibetti¹
Leticia Maria Hoffmann²
Fernanda Araujo Rodrigues³
William Wegner¹,c
Patrícia Kuerten Rocha²

Objective: To analyze the perception of health professionals and companions/family about the development of communication for patient safety in pediatric hospitalizations.

Method: It is an exploratory-descriptive study with a qualitative approach, performed in pediatric clinical-surgical hospitalization units of three hospitals in Porto Alegre, RS, Brazil. 44 health professionals and 94 companions of hospitalized children participated in the study, to a total of 138 participants. Data collection took place between 2016 and 2017, through semi-structured interviews. A thematic content analysis was used.

Results: Two categories emerged: “Barriers to an effective communication,” addressing the failures and difficulties in the communication process and “Tools to improve communication,” that present recommendations for improvements, especially instrumentalization of the companion/family member.

Conclusions: The barriers to an effective communication involve several factors, and effective communication strategies can assist in the development of improvements for pediatric patient safety.

Keywords: Patient safety. Pediatric nursing. Child, hospitalized. Health communication.
INTRODUCTION

The quality of communication in health care is essential to the promotion of patient safety. In the context of child hospitalization, important specifics can interfere in this process, such as the child's ability to understand, the disposition of the companion and family to participate and the diversity of health care processes. These elements highlight the importance of an objective, efficient and effective communication between all those involved in the continuity of care.

Effective communication is one of the main goals for the international prevention of avoidable injuries to the patients. It is an indispensable therapeutic tool for health care, and can be carried out through verbal and non-verbal actions. Effective communication is based in a clear and structured language with correct techniques of communication, aiming at the promotion of a culture of patient safety\(^1\). In this context, the expressive amount of information, professionals, teams and procedures performed with the patient raise the need for constant information updates between patients/relatives and professionals, making it necessary to qualify the communication\(^1\).

Ineffective communication is considered as one of the leading causes of adverse events in health attention\(^2\), resulting in unsafe care, and contributing to unfavorable outcomes\(^3\).

The problems in communication are related to the transition of care, to shift changes and to the relationship between health professionals and patients. Communication is directly linked to the quality and safety of the care offered. The qualification and training of professionals are essential to build effective communication, leading to an appropriate exchange of information and avoiding the occurrence of errors\(^4\).

There are numerous factors related to patient communication that may cause failures in health care. Especially in child hospitalizations, an ineffective communication between patients/companions/professionals can lead to errors such as the suspension of surgeries, tests or procedures, failures in the administration of drugs or even errors related to a diet therapy. The main aspects that interfere in the communication are related to shift changes, transfers of care, multi-professional rounds, records in patient charts, medical prescriptions, and communication about any changes in health care or therapeutic approaches to the patient\(^5\).

In addition, an international study pointed out that the diversity in the training of professionals and the domination of a professional category at the expense of the others, may inhibit other team members from communicating\(^6\). The nursing team has a strategic role to strengthen the communication between the different teams, because they are continuously providing assistance to the patient and the family.

The multidisciplinary team must be more integrated, leaving behind professional category segregation, which today constitutes a challenge in the training processes, in work relations, on the creation of bonds, and especially in communication, which contributes to the fragmentation of health services\(^6\).

A study conducted with health professionals pointed out that they recognize the importance of the dialogue between those involved, associated with the education and guidance of family members for the care of the child. The same study also demonstrated that the companions/family considered communication as a positive point during hospitalization, helping to solve difficulties regarding the care of the child, facilitating even the health care actions that need to be done at home\(^7\).

Despite this, few studies bring together the perceptions of the companions and of the health care team about the communication in the hospital environment. In this context, this study becomes relevant, and is justified by the importance of considering the perceptions of all actors involved in the care about the communication process in pediatric hospitalizations.

To do this, a guiding question was defined: how do health professionals and companions/family members perceive the development of communication for the patient safety in pediatric hospitalizations? Therefore, the aim of the study was to analyze the perception of health professionals and companions/family members about the development of communication for patient safety in pediatric hospitalizations.

METHOD

This is a qualitative study with an exploratory-descriptive design, part of the master's degree project entitled “Patient safety in child hospitalization services in the city of Porto Alegre/RS”. The qualitative approach seeks to understand the actions of individuals, which are the focus of the study, in the reality in which they are inserted. The exploratory research aims to do an overview, an often primary approximation towards a fact, while a descriptive design has as purpose the description of its characteristics\(^8\). For this study, all the standards of the guideline COREQ\(^9\) were strictly followed.

The study was conducted in medical-surgical pediatric inpatient units of three high-complexity hospitals in the
city of Porto Alegre, Rio Grande do Sul, Brazil, all of which are considered state references in child health care and provide assistance through the Unified Health System (SUS).

The study included 44 health care professionals, 12 from Institution A, 14 from Institution B, and 18 from Institution C, distributed in the following professional categories: nurses, nursing technicians, nutritionists, pharmacists, nursing assistants, physicians, speech therapists, physical educators, nutrition assistants, and physical therapists. 94 companions/family members of children who were hospitalized were also included in the survey, 19 from Institution A, 37 from B, and 38 from the institution C, to a total of 138 participants.

The selection of all participants was intentional and they were invited to participate. Regarding the multiprofessional team, the invitation was extended in person and by e-mail. In addition to the disclosure in the murals of the Units 30 days prior to the scheduled date for the interviews. The inclusion criterion used was to have a minimum experience of one year in child health care. Professionals removed from work, or on vacation in the period of data collection were excluded. Data collection was carried out through collective semi-structured interviews, with an average duration of one hour and a half, conducted in a private room in the participants’ institution, at a date and time previously scheduled, according to information disseminated earlier. One meeting took place at Institution A, two at Institution B, and two at Institution C. At Institution A there was only one collective interview due to the reduced number of participants.

Concerning the companions/family members, the inclusion criteria were: age equal or superior to 18 years and having monitored the hospitalization of the child for at least seven days in the inpatient unit, not considering the possible permanence in other sectors, such as the Intensive Care Unit (ICU) and Emergency. All companions in this study were family members, even though this was not a pre-requisite. Therefore, in the present work, both terms will be used as synonyms. After checking the hospital system about the time of admission of the child, the companions were invited to come by the bedside to participate in the research. The interviews were collected through an individual semi-structured approach, lasting approximately thirty minutes, in a private room in the interior of the respective patient unit.

At least one interview in each Institution was estimated involving the health professionals, and concerning companions/family members, six participants per hospitalization units were estimated. However, the final number was defined considering the empirical and theoretical criteria of information saturation\(^8\).

Data collection occurred in the period between 2016 and 2017. In both groups, themes related to the understanding of patient safety, errors during child care, participation and guidance of members of the family about patient safety, as well as security actions and institutional protocols were addressed. In this article, the interviews materials selected were those who referred to an effective communication related to patient safety and that had not yet been analyzed from this perspective.

The interviews were recorded using a digital audio device and later transcribed in full in the word processing software Microsoft Word\(^\circ\) version 2014 and organized in a sequential manner. The speeches were adjusted concerning the spelling, to make the reader’s understanding easier, but without changing the meaning of what was said by the interviewee.

The organization and processing of transcription records were performed with the Program NVivo\(^\circ\), Version 11.0, and later passed through a descriptive process based on the content analysis model of the thematic type proposed by Minayo\(^8\).

For the study, all the ethical principles of the Resolution 466/12 of the National Health Council were respected, and the participants signed the Term of Free and Informed Consent. To maintain the anonymity of the participants, the names of the professionals were replaced by the letter “P”, and the names of the companions were replaced by the letter “C”, and both were coupled with a letter to indicate the Institution of the participant (A, B, or C). The project was approved by the Research Ethics Committee of the Federal University of Rio Grande do Sul (UFRGS) on 21 May 2015, under CAAE 43549115.0.0000.5347, and by the three co-participant hospital institutions, under protocols S1018915.5.0000.5683, 45330815.7.0000.5327 and 48292715.9.0000.5530.

**RESULTS AND DISCUSSION**

From the analysis of the information obtained through the interviews with health professionals and the companions/family members, two thematic categories, in accordance to the objectives of this manuscript, were found.

**Barriers to an effective communication**

The health professionals and the companions/family members identified the factors that were considered barriers and/or difficulties to an effective communication and, consequently, possible risks to patient safety. As in the reports below, a large part of the participants described...
aspects related to failures in communication and/or in its standardization; meaning there was insufficient interaction between the actors involved in the care process of hospitalized children.

The nutrition attendant is left without information. For example, if I get some information from the nurse [team], before releasing it [the diet] I go to the computer and I confirm, I double check. The attendant does not have a computer, so if the nurse team makes a wrong prescription, it will be released wrong. He has nowhere to check. (P B)

I think that it their duty in this light, to leave to the colleague who is coming, or to the doctor, because it should be as specific as possible, that this person did this, this and this, and at what time. (C C)

At the time of shift changes, it has happened that the nurse that was with him did not pass this relation of the medication that has to be given throughout two hours, the vancomycin, because the normal [...] is to do it in an hour, but to him it has to be more diluted and spaced in two hours [...] and then I remembered. (C B)

The participants’ concern about the transference of information between professionals was observed in the statements, including actions related to the shift change and the rounds. It is known that in these activities there is an exchange of information between members of the care team; therefore, it is essential for the communication to be effective. However, it is still necessary to qualify this process through offering more objective of information, reducing of the time spent, using standardized instruments and systemizing records for shift change(10).

In this context, a descriptive study about the shift change process in a pediatric ICU indicated the need to qualify this process, because the gaps in the information transmitted and/or received, can, eventually, influence the occurrence of adverse events, affecting the patient safety(11).

Still on the communication between professionals, it was possible to identify frailties in this process, regarding, specifically, changes in the therapeutic plan of the patient. The following statements illustrate this situation:

Yesterday you put the prescription in the bin and the medication was to start now, so if you want it to start now you have to deliver it in the hand of the nurse. (P B)

The issue of the doctors [...] that put it first in the system, and later go to the medical record and that takes a little bit of time. As it has happened that a medication was suspended and they did it anyway. (C A)

Expanding the discussion, the health professionals also reported the inadequate record of information in the medical records of the patient as a barrier to the communication process:

The resident who is making the admission does not collect the medical history. He’s hospitalized because? We [nursing staff] don’t know. Sometimes you do not have the physical examination sheet or the medical history. (P C)

Sometimes they suspend the medication manually but it continues on the [electronic] prescription in the following days. (P A)

Regarding written communication, the medical records showed that the shortcomings mentioned above jeopardize care. The transference and continuity of care requires medical records to be of high quality, as they would otherwise prejudice the decisions that need to be made(10). The patients’ medical records may be considered a meeting point of communication between professionals, since the therapeutic plan, conduct, prognosis, among other information, will be documented, highlighting the needs for care of that hospitalized child.

The bureaucratization of the work process was also cited by participants as an obstacle to effective communication. The difficulties to create patient safety incident notifications in a form or in the computerized system could be a factor. The following excerpt is related to this aspect:

The [notification] system is slow sometimes, you mark an event, and it takes a long time to appear, making it more difficult to find the event [...] sometimes when [the feedback of] the event appears, the patient has already been discharged. (P B)

As well as in another study, gaps in communication were found, relating to the notification of events and the adjustments that are required because of it(12). Considering said notifications, it should be emphasized that they are not only a method of monitoring, but mainly a systematic tool used to better understand the institutional reality(13).

In this context, researches on safety culture highlight the urgency for professionals to know about the incidents that were reported, as well as the measures for improvement that need to be taken, based on the identification of the risks(12,14).
However, in this study, it was possible to notice that the feedback regarding the analysis of the notifications was significantly slow, which can delay the adoption of preventive measures, interfering in the safety of the patient. Another aspect that deserves attention is the learning opportunity offered by the use of the results from the analysis of incidents, that brings important insights for improvements in the health care procedures, and in this case an effective communication.

About the bureaucratization of the work process and communication, reports were found on the implementation of institutional protocols and Standard Operating Procedures (SOP), which, despite being constructed with the goal of assisting the standardization of therapeutic interventions, are not announced as required, as shown below:

The SOP changed and who was warned? How do we get to know? (P B)

This finding corroborates a qualitative study about safety management, which pointed, in the setting of its research, at the superficiality of the existence of the SOP, since its disclosure does not always reach satisfactory levels, meaning that it is usually elaborated just to fill bureaucratic requirements\(^\text{[13]}\). The disclosure of the institutional routines, the creation/revision of protocols, and the use of such information are great challenges to health institutions, mainly due to the weaknesses in communication processes between the professionals, which can bring repercussions on the care and safety of the patient.

Expanding the analysis on the topic, the participants also reported shortcomings in verbal or non-verbal communication between health professionals and companions/family members. The following speeches confirm this concern:

One time I had to ask, because I did not know what they [health professionals] were giving the patient, then I asked. (C C)

I think that little pamphlet is quite valid, the one that at the beginning of the hospitalization, they [health workers] give us, it is a little pamphlet explaining the routine of the unit [...] I think that it is necessary to make sure that the companion reads that [...] Sometimes you may have someone who can't read, right? So a little while from now I think that in the hospitalization the person could do that together, with the patient, to highlight some of the main points. (C B)

I think not to avoid to give information to the patient and the companion, many times they restrict that information, I think it comes from the staff to bring the best information, in a way that people understand, non-technical, technical terms, the doctor often brings the information this way, they must bring it in a simpler way. (C A)

Despite the relevance of the theme for patient safety, fragilities were found in the information provided by the health care team for companions, especially in relation to actions that could prevent incidents. This finding can be observed in another study that identified parental concerns regarding the decision-making process, because they generally do not feel consulted/informed about the procedures performed on their children\(^\text{[15]}\). This reiterates that the instrumentalization of the companion/family member, with objective and clear information about the care of the child, can contribute to the prevention of failures, because the companion may assist in the prevention of incidents that have the potential to generate damage to the patient.

Complementing the discussion about communication between the health care team and family members, it is possible to infer that some professionals demonstrated an inappropriate way to communicate with them. The following statements highlight this point:

Sometimes some do not speak politely, so I think that they could police themselves a little more in the way they address us. (C C)

There are more, there are issues that we as mothers, we talk and the staff does not give much attention. They do not listen very much after they see that this was what we were talking about. (C B)

Still with regards to effective communication, it is possible to see, through the last statement, how important to the companions is the recognition and valuing of their opinion by health care professionals. It is important to highlight that, from the use of this strategy, it is possible to build a relationship of trust between the parties involved, which is considered fundamental in the elaboration of a therapeutic plan and for the continuity of care\(^\text{[16]}\).

Some of these failures were attributed by some participants to the fragile training of professionals in relation to communication, as verified in the following statements:

Taking from what I know, in general, doctors are very poor in this matter of communication, because they do not have this formal very formal training in a discipline that talks about it or because they do not value it. (P B)
We have a very big problem of communication, because sometimes, the nurse is talking, but the doctor is not. So, I see it like this, that we, the nurses, we try to seek and do the work of several professionals who are not doing it. (P C)

Generally, in the settings studied, it is possible to infer that the is more available for communication when compared to the medical professionals. This finding corroborates a recent research that refers to an increased use of qualified listening by nurses, and this aspect may be attributed to their training, since this theme is explored in university graduation courses (16).

Tools to improve communication

The health professionals and the companions/family members also mentioned aspects that they considered to be tools to improve communication and, consequently, strategies for the promotion of patient safety. In this category, the integration of the care team stood out, as evidenced in the following reports:

It has already happened that the patient had to pass a catheter in the morning and was allergic to latex. So I called the nurse from down there [another sector] and said: “I want to communicate that the patient is allergic to latex.” And she: “I already prepared everything.” I called to confirm. (P C)

She called back to ask if it really was half of a dose, because for example, midazolam has 15ml and 7ml was prescribed for a patient that was small, and in fact it was only 7 drops. (P A)

Starting from the last statement, the practice of double-checking information was highlighted as a tool to qualify the communication process. This practice is recommended from the dispensation of the drug from the pharmacy until the administration to the patient (17). Double-checking is also recommended for all situations that may present a greater risk for incidents, in addition to being a strategy that stimulates the communication between all the professionals.

Another tool mentioned for the improvement of communication was the constant exchange of information between professionals, through a systematic and judicious shift change, multidisciplinary rounds, transfer of care between sectors and regular meetings of the team. The statements confirm this:

Ah, it’s usually like this, the team does meetings, right. Because, for example, it’s a team that treats him, recreation, nursing, doctor [...] I think it has to be done like it’s done here, meetings once a week, I don’t know if for everyone or only for him who is from psychiatry, but they hold meetings to talk about the patient. (C B)

There is communication from one [health care professional] to another, as I said, sometimes I’ll say something to a [nursing] technician, and “mom, the record is already done,” then there is communication between them. Between the doctors and nurses, I think there is this point also. (C A)

As already discussed, the shift change results in a process of exchange of information between the health team members, as well as in the responsibility of transference of care (17). To qualify this practice and to ensure the continuity of care, factors such as multidisciplinarity and professional capacity should be considered; another suggestion was to avoid interrupting processes, side conversations, and anticipated entries and exits (12).

Permanent education is an important strategy for the training of health professionals, especially concerning an effective communication. Training in the work environment is an educational possibility suggested by the members of the multidisciplinary team, to address the theme of patient safety (18). In this context, the use of simulation exercises is recommended, with the aim of problematizing the theme and describing the methodologies for information exchange between professionals.

The use of computerized systems was also listed as a tool to improve the communication between health professionals. The following statement exemplifies this aspect:

It is our nurse that does all by the system, like the NPO [nothing oral], and passes to the kitchen as soon as the doctor says: “Entering into NPO from this point”. Before, we manually did a note and delivered it to the kitchen. Today is no longer this way, today it’s already computerized. (P A)

In relation to written communication, the electronic systems assist in the organization of the information for the support of the professionals and for the qualification of assistance (19).

In accordance to this, a recent integrative review of the literature reiterates the fact that the quality of the records is related to the improvement of care, aiming at the safety and security of the pediatric patient (20). However, it is necessary to qualify the techniques of verbal communication between professionals and the methodologies of orientation/education of patients and family members. In the context of the hospitalized child, the companion/family should
be considered as a partner in the care and as a potential protector for the occurrence of security incidents.

On the relevance of the records, another strategy that has been discussed is the use of standardized instruments to transmit the information related to the patient(3). Specifically in relation to the nurse, the Systematization of Nursing Care was considered an important tool for patient safety, since it allows the definition of risks and demands of the patient, enabling the elaboration of a relevant therapeutic plan(17).

In relation to the factors that qualify the communication and possibly avoid errors, the participants also highlighted the importance of communication between the care team and family. According to reports, when being informed about the therapeutic approaches the companion feels more confident, making them feel more secure in relation to the hospitalization:

"Each procedure that they are going to do they tell us, and we feel more secure in leaving them to do the procedures, to continue the treatment. (C A)"

"I think that it is essential, for the safety of the hospitalized child, or even for a consultation, the dialogue between the team and the family. Because it is there that you will be exposing what you want and getting what your child will need. (C B)"

"Yes, it is like now, as he did the tracheostomy, huge doubts emerged and then they go around clarifying the doubts and this is helping me getting ready to go home. Then it is easy, it is so much easier when you are near and able to talk with the person and they answer about something, is much better than living not knowing. (C C)"

The participation of the companion is known to be a feature seldom explored by the health care team, even when they are able and willing to act as partners for patient safety(15). In this context, a recent integrative review of the literature highlights this role of the companion, pointing out that they can also act as a barrier to the occurrence of incidents(20).

The companions also pointed out that open communication with health care professionals makes it possible for them to be guided about the best way to participate in the care, avoiding risks to the child's health. The following statements illustrate this aspect:

"Besides making medication, they teach us what we should do, how we should care, what is good, what is not. (C C)"

"But after they explain it, you see that it is important [...] my father was very upset when I asked him to wash his hands, you know [...] he could have washed his hands, but could have touched something, sure he did, he touched the keyhole of the door. (C B)"

It was observed that the majority of companions/family members understood that being communicated with about the drugs administered and the procedures done with the child allows them a closer look at what is being done, increasing the safety of the child. In this sense, when the family understands the importance of care, they can start spreading good practices and become a partner in ensuring the safety of the pediatric patient.

This finding corroborates recent researches that highlight the role of the companion as a partner for the promotion of the security of the pediatric patient, from the identification and prevention of incidents(7,20).

It is also of the utmost importance that the professional listens and is attentive to what the companion is saying, since it is a factor that may promote an appropriate treatment to the patient, based on the needs identified by the family and that, sometimes, go unnoticed by the professional:

"We always ask "Mom, when the pump beep calls us. Or if you squeezed the button to stop the noise, calls us anyway". (P A)"

"I think that the family is an important safety barrier, but only when instructed. When you empower the family about the issues involved, yes, but if they do not know or do not have the knowledge it is kind of tricky. (P B)"

"An effective communication is also related to listening, because we often instruct, we have our speech ready, our routine here is like that, we do not listen to who is this family, which is their reality, if they have conditions to absorb this information that we are offering. (P C)"

"When we notice any difference in him, we communicate, to change some medicine, something like that [...] she [health care professional] told me that it is important to communicate what we notice. (C C)"

In the perspective of appreciation for the family, the effective communication is considered as an essential tool for the establishment of a quality assistance and for promoting emotional care for the companion(16).

Strategies for effective communication go from the use of standardized techniques and instruments to the stan-
dardization of the information about the patient and their care, and broaden the concept according to which the companion/family and the patients themselves have a voice to collaborate in this process. The improvements arising from the participation and inclusion of the companion/family for an effective communication bring benefits to the integral care, to the continuity of care, and to the promotion of patient safety in the pediatric population. Active listening, an orientation to the child/family focused on their context, and the integration between the care team, strengthen the effective communication and prevents security incidents.

**FINAL CONSIDERATIONS**

Analyzing the perception of health professionals and companions/family members as to the development of communication for the safety of the pediatric patient in hospital admissions led to two main topics: barriers to an effective communication, which identified fragile aspects such as the academic training of health professionals, the institutional organization, the professional commitment and the lack of integration between health staff and companions. The second theme focused on the tools to improve the communication, pointing out strategies such as the organization and use of standardized, computerized and un-bureaucratized processes, as well as the participation of all the actors involved in the care for the development of improvements to the security of the pediatric patient through an effective communication.

It was found that companions/family and the multidisciplinary team shared these perceptions, which allowed to infer that both have similar capacities to produce knowledge about the issue and that the participation of both should be valued by health institutions. The role of the nursing staff in the pursuit of patient safety was also highlighted, as they work mainly in the management of care, and are regarded as a professional category that has the function to aggregate the other members of the team in the communication processes.

The limitations of this research included the non-adherence of at least one representative from each professional category in the interviews and a scarce number of national studies that discuss the theme of communication related to patient safety in the context of pediatric hospitalizations. Therefore, the theme is not exhausted, and new investigations in other hospital contexts are suggested, as well as the discussion of this theme in the teaching/training of health professionals.

This research enabled the broadening of the knowledge related to communication, starting with the identification of weaknesses and strategies related to this process. Finally, what stands out as the main contribution of this study is the recognition of the importance of integration between health professionals and companions/family members, aiming at the qualification of assistance and, consequently, at the safety of the patient through an effective communication between the parties involved in the context of care of hospitalized children.

**REFERENCES**


