




Handover communication in intensive therapy: nursing team meanings and practices



Comunicação no handover na terapia intensiva: sentidos e práticas da equipe de enfermagem

Comunicación en el proceso de cambio de turno (handover) en cuidados intensivos: sentidos y prácticas del equipo de enfermería

Grazielle Rezende da Silva dos Santos^a 
 Fabiana de Mello Barros^a 
 Rafael Celestino da Silva^a 

How to cite this article:

Santos GRS, Barros FM, Silva RC. Handover communication in intensive therapy: nursing team meanings and practices. Rev Gaúcha Enferm. 2020;41:e20180436. doi: <https://doi.org/10.1590/1983-1447.2020.20180436>

ABSTRACT

Objective: To analyze the meanings built by the nursing team regarding communication at shift handover in intensive care units.

Method: A qualitative study, grounded on the theoretical framework of Berlo, was developed in the intensive care unit of a hospital in Rio de Janeiro with the nursing team participating in the handover process or working with patient care. Observation and interviews were conducted, with a thorough description of the data and thematic content analysis.

Results: There is acknowledgment of the meaning of handover in nursing care, which is expressed in behaviors aimed at avoiding inefficacy or the incorrect perception of communication; on the other hand, there is little participation of nursing technicians, with side talks, lack of attention and incomplete information, which compromises their effectiveness.

Conclusion: Professionals should understand their role in the communication process by playing it with active participation to reduce handover noises.

Keywords: Patient handoff. Critical care. Communication. Nursing.

RESUMO

Objetivo: Analisar os sentidos construídos pela equipe de enfermagem sobre a comunicação no *handover* na transferência de turnos na Unidade de Terapia Intensiva.

Método: Estudo qualitativo alicerçado no suporte teórico de Berlo, desenvolvido na Unidade de Terapia Intensiva de um hospital do Rio de Janeiro com a equipe de enfermagem participante do *handover* e/ou atuante na assistência ao paciente. Realizou-se observação e entrevistas, com descrição densa dos dados e análise de conteúdo temático.

Resultados: Ao tempo em que há o sentido de reconhecimento da importância do *handover* para o cuidado de enfermagem, expresso em comportamentos que buscam evitar a ineficiência ou percepção errônea da comunicação, por outro lado, há pouca participação dos técnicos de enfermagem, com conversas paralelas, desatenção e informações incompletas, comprometendo a sua efetividade.

Conclusão: Os profissionais devem compreender o seu papel no processo de comunicação, desempenhando-o com participação ativa para reduzir os ruídos no *handover*.

Palavras-chave: Transferência da responsabilidade pelo paciente. Cuidados críticos. Comunicação. Enfermagem.

RESUMEN

Objetivo: Analizar los sentidos elaborados por el equipo de enfermería sobre la comunicación en el *handover* de la transferencia de turnos en una Unidad de Cuidados Intensivos.

Método: Estudio cualitativo fundamentado en el marco teórico de Berlo, desarrollado en la Unidad de Cuidados Intensivos de un hospital de Rio de Janeiro con el equipo participante del *handover* y/o actuante en la asistencia al paciente. Se realizó una observación y entrevistas, con descripción detallada de datos y análisis de contenido temático.

Resultados: A la vez que se reconoce la importancia del *handover* para la atención de enfermería, expresado en comportamientos que buscan evitar la ineficiencia o la percepción errônea de la comunicación, también se registra poca participación de los auxiliares de enfermería, con conversaciones paralelas, desatención e información incompleta, lo que compromete su efectividad.

Conclusión: Los profesionales deben comprender su rol en el proceso de la comunicación, desempeñándolo con participación activa para reducir las interferencias en el *handover*.

Palabras clave: Pase de guardia. Cuidados críticos. Comunicación. Enfermería.

^a Universidade Federal do Rio de Janeiro (UFRJ), Escola de Enfermagem Anna Nery, Departamento de Enfermagem Fundamental. Rio de Janeiro, Rio de Janeiro, Brasil.

■ INTRODUCTION

Promoting effective communication in health services is one of the goals of the National Patient Safety Program (*Programa Nacional de Segurança do Paciente*, PNSP), which provides for the creation of protocols, guides and manuals for patient safety⁽¹⁾.

In the hospital environment characterized by the high flow of professionals, activities and information circulation, communication processes are complex, increasing the possibility of noise, which in turn may cause adverse events to the patient⁽¹⁾. Among the adverse events associated with communication, those resulting from handover among health professionals are considered critical point in the PNSP.

The handover involves three characteristics: the transfer of information, or the responsibility and of the decision-making competence about patient care. It is a clinical activity that occurs from the transfer of patient information among the professionals from different shifts to the transfer of a patient between hospital sectors and from one hospital to another. It is a way of transferring responsibility for the patient to the other team during care, admission or discharge⁽²⁻³⁾.

The nursing team actively participates in these moments by providing full patient care over the course of 24 hours, so communication between the team is fundamental for nursing care⁽⁴⁾, which requires great attention and investment of these professionals in the prevention and reduction of patient harm.

In Intensive Care Units (ICUs) the communication process involves critically ill, life-threatening patients who use advanced technologies for their care, which implies many health professionals managing such technologies⁽⁵⁾. These characteristics make communication difficult and are a potential cause of adverse events in the ICU, because of the noise that may occur and the reduction in the fidelity of this communication.

The term fidelity of communication is used to designate when the message source can faithfully express its purpose and cause the desired reactions on the recipient. However, there are factors that hinder this fidelity, called noise. Noises are factors that hinder or prevent the message from reaching the receiver correctly⁽⁶⁾. On this matter, studies on the handover of nursing in the ICU signal to noises in this communication process, which are challenges to patient safety⁽⁷⁻⁸⁾.

An example of such noises is seen in a research conducted at a hospital in Australia that analyzed the content of the handover of ICU nursing involving 40 nurses, which verified the following: the absence of data on the current clinical situation; presence in only 40% of handovers discharge and long-term care plans; failure to reread, which ensures the

understanding of the professional receiving the information, which happened in 35% of the cases; and the intersection of drug prescriptions with the drugs being infused and the medication chart present in 40% of the handovers⁽⁸⁾.

In another study that looked at 16 handovers of nurses in a hospital ICU in Texas, incomplete information was related to the following sections: assessment and care plan, with 35.1% of the information shared; cardiovascular system present in 7.4%, neurological system in 7.3%, respiratory system in 6.9%, gastrointestinal system in 6.7%. Treatment-related information was shared in 16% of the handovers⁽⁹⁾.

The handover is a priority by the World Health Organization for reducing adverse events as there is evidence that complete and reliable handover information contributes to safer care and, on the contrary, when there is omission or incorrect information, there is a chance of harm for the patients⁽⁷⁾.

In the theoretical perspective of the adopted communication, the attitudes of the source and the receiver have an influence on the fidelity of the communication, that is, favorable or unfavorable attitudes regarding the objective to be communicated, in relation to the subject, or to the source itself or to the receiver, implicate in the behaviors during the communication process and the message that will be conveyed. Therefore, it may have impact on the safety of communication in the handover in the ICU⁽⁶⁾.

Given this, the following research question arose: What meanings do professionals construct about handover communications during shift transfer between the ICU nursing staff? The aim is to analyze the meanings constructed by the nursing team about communication in handover in the shift transfer in the ICU.

■ METHOD

A qualitative, exploratory study based on Berlo's theoretical support. For this author, communication is a way of expressing ideas through codes, whether verbal, such as language, or nonverbal, as facial expressions and body movements. This communication develops in a process whose objectives may be to inform, persuade or entertain the recipient of the message being shared by the sender. However, "no one can communicate without any attempt to persuade one way or another"⁽⁶⁾. Thus, communication can be understood as a means of sharing ideas and influencing each other.

Such communication has elements that relate to each other: source, encoder, message, channel, receiver and decoder. The source has a purpose that it wants to express through the message and uses an encoder to do so. After

choosing the channel, the message is shared, with the receiver using a decoder to understand the purpose of the source. The relationship between these elements may be satisfactory or ineffective, depending on whether the goal is achieved by the source⁽⁶⁾.

From this perspective, the attitudes of the source and the recipient of the message, that is, their social positions, beliefs, values, sociocultural aspects, influence the fidelity of this communication and/or the occurrence of noise at the time of the Nursing handover⁽⁶⁾. Thus, the referential in question allows us to understand how the elements that integrate the communicative process have repercussions on its development, as well as on the subsequent behaviors of professionals who take responsibility for patient care.

The research was developed in the surgical ICU of a university hospital in the city of Rio de Janeiro. In this ICU there are 10 beds for the care of critically ill patients. The handover nursing shift transfer between teams occurs at two times, at seven o'clock in the afternoon and at seven o'clock in the morning, occurring from the arrival of the nurse who starts the shift. An instrument in checklist format is available in the industry for use by the nursing staff during the handover.

The nursing staff of the research scenario is composed of two nurses on duty and the head nurse, as well as six nursing technicians/assistants, who take turns on a scale of 12 hours of work and 60 hours of rest. The participants of the research were the individuals who met the following criteria: being a member of the surgical ICU nursing team; attending the formal handover moment and/or performing direct customer service after the handover. The exclusion criterion was to be a resident nurse.

Data production took place from November 2016 to January 2017. In the present article we considered the use of the systematic observation techniques of handover and a semi-structured interview. This is because the article is an excerpt from the Integrated Research Project that analyzed the communication process of the ICU nursing team during the handover as regards noise by employing multi-techniques: handover audio recording, handover observation and team care practices after handover and interviews.

The systematic observation of the handover occurred in the first phase, aiming to observe how the elements that compose the communication process that may generate noise according to adopted referential framework⁽⁶⁾ expressed in the behavior assumed by the nursing professionals at the time of handover. We sought to grasp characteristics of the communication practice in the handover, in order to perform the analytical deepening of the meanings attributed by the professionals to communication in the second phase of data production.

After the project was approved by the Research Ethics Committee of the locus institution, there was an exploratory stage in which the researcher remained in the field to know the daily life of the study sector regarding the research phenomenon. This phase allowed familiarity with reality, approaching the participants, as well as inviting members of the nursing team to participate in the research.

When it was found that there was a naturalization of the presence of the researcher, the observation of the handover during the shift transfer from night staff to day staff began. The explanation for choosing this specific moment is that, in the Integrated Research Project, to describe the communication process in the light of the concept adopted it was necessary to observe the responses of the receiver in relation to what had been communicated by the source, to verify if it could reach its goal. For this, the team's care actions were observed after the handover, choosing to perform it during the day, when there is a higher frequency of nursing procedures. Thus, the handover from night shift to day shift was observed.

To observe the handover, an instrument was used aimed at apprehending the behavior and attitude of the source and receiver in relation to the message, including parallel conversations, communication rush, early departure, late arrival, tone of voice, presence of jokes. These data were recorded in a field diary, with descriptive annotations of scenes in relation to the place, people, their expressions and course of actions, in order to illustrate the behavior of the nursing staff. We got a record of 105 hours and 35 minutes of observation, considered enough to meet the objective. Of this phase, of the 45 potential participants, 42 agreed to participate in the research.

For the analysis of the observation data, the principles of dense description were applied. In this sense, from the handover depth description of scenes that dealt with the elements that make up the communicative process so that their effectiveness can be realized, we sought to interpret them in a dense manner, considering the research framework. Such analysis supported the second phase of data production.

Thus, semi-structured interviews were conducted with previously observed participants, using a script of questions that contemplated the following: handover, importance of communication, difficulties faced, ways of coping, problems experienced, concerns. The interviews took place in the sector itself, in a private room, with a digital recording device and according to the participants' availability.

For the analysis of the interviews, the thematic content analysis technique was applied. Thus, the researcher performed an analytical deepening in the explanations given by the participants. In the first moment there was a floating

reading of the material, making the researcher approach the explored corpus. In a second moment, the markings were made in all the material of the registration units (RUs), which were composed by themes that portrayed the communication and its elements.

We sought to turn most of the text into an RU. This procedure allowed us to identify the emergence of the new themes, which served as the basis for the decision to finalize the interviews. With the addition of no new elements, the interview stage with 19 participants and 362 RUs was completed, the theoretical saturation point⁽¹⁰⁾. The defined RUs formed 26 units of meaning (UM) in the light of the meanings they expressed. These meanings were interpreted according to the theoretical framework, which supported the inferences regarding the manifest/latent content.

The UMs were then submitted to analysis in quantitative and qualitative terms, from which there was the organization of empirical categories that express the contents addressed by the participants in the interviews, namely: "Nursing Handover in the ICU: adopted model and evaluation"; Communication practice in handover: Noises and their potential impacts. The data from the observations are described along with the presented categories, establishing the counterpoint with the statements.

After the study was approved by the CAAE locus: 56986916.8.3001.5257 and opinion No.: 1,728,672, participants were requested to sign the Free Informed Consent Form. Confidentiality was guaranteed through alphanumeric identification, the code being Enf = Nurse and Tec = Nursing technician, SN = Night service and SD = Day service, followed by the Arabic number from the order of observation.

■ RESULTS

Nursing Handover in the ICU: adopted model and evaluation

This category brought together 17 UMs, of which nine referred to how participants characterized the handover model of the research ICU, regarding the following: the participating members, roles, dynamics, communication content, place of performance, instruments. The professionals reported that this sharing of information about the patient, most often, happens at the bedside of the patient; however, some do it at the nursing station, without being close to the patient.

There are nurses who like to sit at the table with the technicians or even at the counter, but others prefer to go to the box, see the bomb, see everything, see the patient with the technicians. (Tec 11 SD)

It is passed from nurse to nurse, in bed with the surrounding technicians. (Tec 9 SD)

As shown in the excerpts presented, this handover occurs with the participation of nurses and nursing technicians; however, nurses are more active, being responsible for sharing information about patients. This makes some nursing technicians perceive this moment as a nurse-to-nurse communication, and just keep following the handover moment.

What I can observe, is that the nurse passes the shift to the other nurse, and we, as technicians, just watch, or when there is something that went unnoticed by the nurse, the technician signals, but it's what I perceive. (Tec 07 SD)

During the shift, then, we almost have no active voice, the technicians, it's more from nurse to nurse, we are, around, we are closer to receiving the shift with the nurse, who questions, sometimes questions. We just stay or if we see any change, we signal, but we don't have so much [...] in the shift change we are more for the information that is passed. (Tec 16 SD)

Tec 07 and Tec 16 signaled that in the ICU studied the receivers can put themselves in the position of message sources when they need to share some information during the communication process. This role reversal occurs without restriction to the participation of professionals, particularly the nursing technician who, if he has relevant information about the patient, can freely put himself.

The nurses always pass, but, as I said, the technicians are free, because they have been here for two or three days in a row [...] you see that patient every day, so he says: "I don't know when his last dialysis was"! There: "_No, it was so much, I was with him, lost so much." So I think it's cool, we have the freedom, the technicians here are very active, are well connected and are always adding something like that. (Tec 06 SD)

It was noticed that communication in the handover happens through speech and written records. The message source nurses use their nursing evolutions as a memory aid to the information to be shared, while the recipients follow through the patient's medical prescription, recording relevant data.

Nurses [...], at least from night shift to day shift, use rescue methods such as, for example, printing out progress or taking notes somewhere. (Enf 07 SD)

We passed along with the slip. See each item the patient is on. (Enf 10 SN)

This showed that professionals seek to reduce the chances of miscommunication due to the amount of information and quality needed during sharing, such as the prescription conference with infused drugs. This behavior trapped an error in handover, illustrated in the field diary:

Enf 11 SN reported during the handover that the patient's diet was flowing at 63 ml/h. Upon entering the bed, nurse 13 SD who was receiving the message realized that the diet was programmed at a different speed and reported the discrepancy to nurse 11 SN. After verification of the prescription by Enf 11 SN, Enf 13 SD corrected the infusion rate error. (Field diary excerpt, Enf 11 SN and Enf 13 SD)

The data also indicated that the practitioners list the information that needs to be shared during the handover. Information about complications has appeared in many interviews, indicating its relevance to the team in communication.

[...] And they go through all the [...] complications, what happened to the patient, the devices they are using, the care in general. It is mainly how the patient has spent the last twelve hours or the last twenty-four hours, depending on whether you have spent the last twelve hours or not, [...] to show if there was any complications or not, and starting from a picture if the patient had presented any improvement or worsening of that picture within the last twelve hours, related to hemodynamic, ventilatory stability, [...] the drugs that the patient is using, if there is any schedule for the day. (Enf 07 SD)

Still in this first category, eight UMs addressed the professionals' assessment regarding the handover model in the ICU. The professionals recognized the importance of handover in the care, because they understand that this process is necessary for the conduction of the actions and for the continuity of the assistance, a thought depicted below:

Yes [...] if all data is relevant and you no longer have information, you are failing to pay attention to something important to the patient that will make a difference in caring for them. If you give me a patient who has pressure ulcer, without parameters, when I come to evaluate the back, has a pressure ulcer that needs a certain bandage, I did not prepare, I did not take the material, I have to disband, redo, take all the material, get out of bed, has all the time of care that increases. She may be an ally but also a villain, her absence harms her. (Enf 04 SD)

During the evaluation, the interviewees presented positive and negative points of this process. Those with a positive evaluation believe that the handover in the sector has a good structure, containing the necessary information to start the assistance.

The shift change here is well explained from what I see. (Tec 11 SD)

I consider our shift change here quite complete. (Enf 07 SD)

In contrast, they also raised negative reviews of the handover, particularly the lack of interest and the low participation of nursing technicians, behaviors considered harmful to the handover, as seen in the following excerpts:

In the shift change they can participate. They listen more and participate less, are less interested. I do not say all but the vast majority. (Enf 16 SD)

I see a lack of interest from the technician on duty. (Enf 11 SN)

The nurses stressed the importance of the participation of the technicians in improving communication in the handover, because they consider that they have much to contribute to information sharing, as they remain in direct contact with patients.

I would like the shift change to have more participation from the technical team, because they are very observant, they are very competent, so they have something to contribute. So just the nurse, the shift change is the same you know [...] There are nurses who do not like when the technician speaks, feel outdated, which I think is bullshit, that we take better care with more information. They have the contributions and would like them to participate more. Maybe if they participated more, they would pay more attention to the passage. (Enf 06 SD)

Besides this factor, another negative aspect to the communication process was lack of objectivity. For some respondents, the handover contains unnecessary information to care for, making it too long and tiring, and can therefore be a source of distraction.

We think that nurses give too much unnecessary detail, like, what's going on, unnecessary. You might be going through what's going on, a daughter-in-law, if this and that, but it's unnecessary and they end up talking quietly and it gets

boring, monotonous and then you disperse. Sometimes you are standing still without talking, but then you have the [...] head that you are losing the notion of need, it ends up being a drag. (Tec 02 SD)

Handover communication practice: noises and their potential impacts

The second category originated from the grouping of nine UMs and evidenced the presence of noises that occur during the communication process and that can negatively affect the care performed. These noises interfere directly with handover communication, preventing the message from reaching the receiver in the way desired by the source.

The technician getting on duty and fiddling with his cell phone, talking to his colleague. (Tec 11 SD)

Difficulty, nurses talking quietly, staff talking, on cell phone. (Enf 10 SN)

The occurrence of such noises was illustrated in the data recorded in the field diary. Enf 12 SD's late arrival report and no full participation of the handover also gained prominence in Enf 07 SD's speech and other field observations.

While Enf 09 SN was speaking, some nursing technicians were verbally warned by Enf 15 SD who was in the receiving position, as they talked and paid no attention to the handover. Then Enf 12 SD raised the pitch by saying: "Pay attention, this information is important!" (Field diary excerpt, Enf 09 SN, Enf 12 and 15 SD)

The handover started with Enf 9 SN, Enf 16 SD and Tec 6 and 13. The other nurse, 12 SD, arrived 20 minutes late and could not hear the information from all the patients. At times, Tec 6 leaned or got closer to Enf 9 SN, as she spoke too softly, and the technician had difficulty hearing it to understand the shared message. (Field diary excerpt, Enf 9 SN, Enf 12 and 16 SD; Tec Enf 6 and 13)

Sometimes the nurse is going to another job, in this rush, cannot keep up with all this shift change, so it may be a noise really, because something may have happened in the meantime and could contribute a little more. Now, arrive late for sure! (Enf 07 SD)

Enf 12 SN, Enf 17 SN and Enf 13 SD were present in the handover. Enf 12 SN began by sharing information about the patients who were under its responsibility in the previous shift and, after speaking, withdrew from the sector. Enf 17 SN

continued the handover, sharing information about the other inpatients. Enf 02 SD arrived 15 minutes late and did not participate in the handover, remaining in the nursing station until the end of the communication. (Field diary excerpt, Enf 12 and 17 SN; Enf 02 and 13 SD)

Finally, deponents referred to communication noises from an incompletely or even mistakenly shared message about patient data, which also negatively interferes with the quality of the handover and may have negative consequences for care practice and patient safety.

Complicated, a common thing, an exam that was done, after a nasoenteral tube, we are waiting for the X-ray and sometimes we receive this patient and was the tube on the previous shift. Had the X-ray and the information does not arrive the other day. This information is stopped because it was waiting for the x-ray that was ready. (Enf 11 SN)

I have already observed problems, both of the nurse who is passing the shift and of how to give information that was not confirmed, nor in the medical record, he was confused. Misleading information, and this compromises because our work demand, the reading of the medical record will usually happen in the afternoon, after most care is done in the morning, and if you give some compromised information and work with that information for four or five o'clock, this is very bad and dangerous. (Enf 6 SD)

Enf 09 SN at the time of handover reported that a tracheostomized patient had a small amount of secretion. However, it was only during the shift and when analyzing the patient's previous records that the patient was producing a large amount of secretion. (Excerpt from field diary, Enf 09 SN)

Missing, incomplete, or misleading information can lead to missed, delayed, or unnecessary procedures that could result in patient injury. In addition, the time devoted to performing unnecessary activities may compromise the performance of care to other patients and, therefore, is also a risk.

■ DISCUSSION

Based on the results, it is clear that the meanings constructed by the professionals about the communication process in the handover in the ICU reveal two understandings, namely: while observing a discourse that values the relevance of handover for nursing care, on the other hand, there are thoughts and actions that bring negative repercussions for care and its safety, which requires reflection.

Regarding the first understanding, the professionals of the nursing team investigated emphasize in their statements the importance of handover for care based on the understanding that it is necessary to share complete and truthful information about patients so that, with this information, they can plan and organize care, optimizing time and meeting the needs of patients safely.

This information shared completely and without errors is of great value for the safety of care in the context of the ICU, because otherwise noises in this process generate insecurity for patients and bring harm to care, as Enf 04 SD mentions, according to which communication can be an ally but also a villain.

Considering the theory of communication used in this research, situations in which communication is seen as villainous are defined by Berlo as "collapse in communication" when the purpose of communication to influence the other is forgotten. The collapse means that the recipient of the message is not affected in the way the sender intended, either by "inefficiency" or "misperception". Inefficiency is usually due to routine. This is because communication becomes habitual and is performed in daily life without much effort. In this sense, people have an idea of their goals, but do not specify them. Misperception, on the other hand, manifests itself when the recipient does not correctly interpret the message, that is, when its response is not the same as the source intended⁽⁶⁾.

In the research in question, the sense of recognition of the importance of handover is expressed in behaviors that seek to avoid this inefficiency or misperception of the communication, particularly when participants report to the handover model, performed at the bedside and using information retrieval strategies.

These positive points in performing the handover are in line with the literature, which shows that the adoption of certain behaviors ensures that the message reaches the recipient⁽¹¹⁻¹²⁾. Face-to-face and bedside information sharing is favorable for the communication process to occur, as the chance of errors decreases⁽¹¹⁾.

With this strategy, the professional can compare the information being shared with the visual impressions he is acquiring from that patient during the handover, which may help to reduce errors or even correct them⁽¹²⁾. One of the scenes observed in the data production illustrates this correction of handover errors, when the nurse corrected the discrepancy in the infusion speed of the diet. In the statements this aspect was also visualized, when Tec 11 SD said that the nurse enters the box to see the patient, see the pump, see everything.

These data illustrate two elements of Berlo's proposed communication process: the channel, the medium through which the message passes, and the decoder, sensory capabilities of the receiver that can decipher the message and thus understand it⁽⁶⁾. The nursing staff uses more than one communication channel during handover, i.e., to accurately decode the message the professional, in addition to hearing, uses his sight to verify the patients' parameters, which is positive for the fidelity of communication.

The use of verbal and written communication by the nursing professionals in the study setting, with the aid of prescriptions and records, is another positive factor that contributes to avoiding the loss of information. Evidence has shown that in a handover without structuring, without a rule to follow, much information loss occurs^(8,13-14).

Standardization helps nurses to organize large amounts of information, sometimes avoiding redundancies⁽¹⁴⁾. Thus, it allows the professionals involved in the process to share the same mental model and to not forget any relevant items⁽¹³⁾, an aspect that improves the professionals' understanding of the patient's condition and provides a reduction in information sharing time⁽¹⁵⁾.

The other evidence about communication in handover expressed in the results is illustrated by the thinking of Tec 16, when he states that technicians have almost no active voice. In the adopted theoretical framework, communication is seen as something mobile and that depends on the action of all elements, influencing each other. This movement of the elements is what enables the communication process, because if they remain static, communication does not occur. About this, Berlo alludes to food preparation where the ingredients are necessary but not enough, a fusion among them is essential for a good result⁽⁶⁾.

In interviews when nursing technicians discuss their participation in the handover, this process idea is highlighted. This is because when they say that they feel free to participate and complement the information issued by nurses, leaving the position of receiver and becoming a source, the process happens. On the other hand, when they remain passive, understanding that it is not their role to be active in this communication, unidirectional communication occurs, compromising the process.

Such understanding is seen in the testimonials of the technicians who fail to see the importance of their presence in the handover and end up classifying it as a communication among nurses, losing interest in this activity. According to Berlo, the positioning of the receiver in front of the message source can influence the final goal. Such positioning/

judgment says a lot about the social reality in which the individual is inserted⁽⁶⁾.

The low participation of nursing technicians shows that, due to the social system in which they are inserted, they do not think they belong to the same group of nurses. Thus, the judgment on the handover performed by the nursing technicians from their presence in this social system, helps explain their behaviors. One of them, for example, says that the technicians are around, just watching, which is complemented by the report that there are some nurses who do not like the nursing technician to comment.

Therefore, in the light of the data, it appears that in the handover the nurses assume the position of protagonists and the technicians that of assistants, so they judge their participation at this moment as of less value, assuming behaviors in the face of information that reflect their lack of interest. Taking as reference the applied theoretical support, the low participation of technicians can also be considered as noise⁽⁶⁾ because, by not absorbing the information needed to organize care, they may not develop the actions expected and thought by the source of the message when giving it.

Among the behaviors found that affect the effectiveness of the communication process are late arrivals, early departures, as well as parallel conversations. The conversation sometimes resulted in a request for silence from professionals who were sharing or receiving the message so that the team could understand the information. Nursing technician 11 exemplifies this noise, according to which the technician moves the cell phone or talks to a colleague on the side when receiving the shift.

Different investigations have pointed out that parallel conversations about non-patient care issues and disruptions are detrimental to the communication process as they negatively interfere with the flow of shared information and may cause unsafe care⁽¹⁶⁾. In addition to these interruptions, other detrimental factors are lack of clarity in sharing messages and professionals arriving late to the sector or in a hurry to leave the unit⁽¹⁷⁾.

Parallel conversations accounted for most disruptions in communication among the ICU health staff in another study, behaviors that continue to occur due to lack of awareness of their negative impact, becoming common in the sector⁽¹⁸⁾.

Berlo points out four factors in relation to the source and receiver that can increase or decrease the fidelity of the transmitted message. Two of these factors appear in the data. The first has links with the source and receiver attitudes about the subject. In the data, the nursing staff highlighted some items that are prioritized in the handover, such as the general state of the patient, the occurrences and information

about invasive devices, which reflects the sense constructed by professionals that influences the communicated content.

This reality is addressed in studies that show insufficient information about patients^(9,19), mainly regarding information on health assessment and care plan. The second factor relates to the level of knowledge. This is because if the source knows about the subject that will share, the communication will certainly be more effective. If the recipient is unaware of the content of the message, it may misinterpret the purpose of the source⁽⁶⁾.

In the interviews and the observation, the sharing of wrong data was identified. Mistakes make professionals work harder to understand the patient's condition and, consequently, care organization. These data, when not corrected in time, can cause serious harms to patients from the care provided.

It is concluded that the communication noise between team members has repercussions on the safety of the nursing care clinic, since the professional, when working with an untrustworthy message, ends up providing unsafe care to the patient. This time, wrong actions put you at risk when you are subjected to an unnecessary procedure or when it is not performed due to lack of information.

■ CONCLUSION

The meanings built by nursing professionals place communication as a crucial stage in the planning and implementation of ICU inpatient care; however, it is still necessary for each professional to understand their role and position in this process, performing it with interest and active participation to reduce noise during handover and to ensure the safety of patient care.

These results should be used for the ICU nursing team's reflection on their handover practice, as well as in the discussion of the process of formation of future nurses. An educational strategy to stimulate this reflection is the use of realistic simulation, aiming to raise awareness of the responsibility for communication security, with critical analysis of the factors that interfere with its effectiveness.

It is about focusing on the training of low-performing non-technical skills of professionals. From a safety perspective, such training can be a barrier to reducing noise and the potential harms associated with communication failures.

In the research in question, the communication analysis took place from a specific moment of the handover, which is a limitation in the scope of the results; so we recommend analyzing the communication on the handover in the inter-unit transfer from the hospital.

■ REFERENCES

1. Ministério da Saúde (BR), Fundação Oswaldo Cruz, Agência Nacional de Vigilância Sanitária. Documento de referência para o Programa Nacional de Segurança do Paciente. Brasília; 2014 [cited 2017 Aug 15]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/documento_referencia_programa_nacional_seguranca.pdf
2. Ilan R, LeBaron CD, Christianson MK, Heyland DK, Day A, Cohen MD. Handover patterns: an observational study of critical care physicians. *BMC Health Serv Res.* 2012;12:11. doi: <https://doi.org/10.1186/1472-6963-12-11>
3. Abraham J, Kannampallil T, Patel B, Almoosa K, Patel VL. Ensuring patient safety in care transitions: an empirical evaluation of a handoff intervention tool. *AMIA Annu Symp Proc.* 2012 Nov [cited 2016 Oct 02];2012:17-26. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3540511/>
4. Broca PV, Ferreira MA. Communication process in the nursing team^a based on the dialogue between Berlo and King. *Esc Anna Nery.* 2015 [cited 2017 May 02];19(3):467-74. Available from: http://www.scielo.br/pdf/ean/v19n3/en_1414-8145-ean-19-03-0467.pdf
5. Minuzzi AP, Salum NC, Locks MOH, Amante LN, Matos E. Contributions of health care staff to promote patient safety in intensive care. *Esc Anna Nery.* 2016 Mar [cited 2017 Oct 03];20(1):121-9. Available from: <http://www.scielo.br/scielophp?script=sciarttext&pid=S14141452016000100121&lng=en>
6. Berlo DK. O processo da comunicação. *Fundo da Cultura: Rio de Janeiro*; 2003.
7. Mukhopadhyay A, Leong BS, Lua A, Aroos R, Wong JJ, Koh N, et al. Differences in the handover process and perception between nurses and residents in a critical care setting. *J Clin Nurs.* 2015 Mar;24(5-6):778-85. doi: <https://doi.org/10.1111/jocn.12707>
8. Spooner AJ, Chaboyer W, Corley A, Hammond N, Fraser JF. Understanding current intensive care unit nursing handover practices. *Int J Nurs Pract.* 2013;19(2):214-20. doi: <https://doi.org/10.1111/ijn.12058>
9. Abraham J. Characterizing the structure and content of nurse handoffs: a Sequential Conversational Analysis approach. *J Biomed Inform.* 2016 Feb;59:76-88. doi: <https://doi.org/10.1016/j.jbi.2015.11.009>
10. MinayoMCS. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. *Rev Pesq Qual.* 2017 [cited 2018 Jan 31];5(7):1-12. Available from: <https://editora.sepq.org.br/index.php/rpq/article/view/82/59>
11. Vergales J, Addison N, Vendittelli A, Nicholson E, Carver DJ, Stemland C, et al. Face-to-face handoff: improving transfer to the pediatric intensive care unit after cardiac surgery. *Am J Med Qual.* 2015 Mar-Apr;30(2):119-25. doi: <https://doi.org/10.1177/1062860613518419>
12. Drach-Zahavy A, Goldblatt H, Maizel A. Between standardisation and resilience: nurses' emergent risk management strategies during handovers. *J Clin Nurs.* 2015 Feb;24(3-4):592-601. doi: <https://doi.org/10.1111/jocn.12725>
13. Lane-Fall MB, Speck RM, Ibrahim SA, Shea JA, McCunn M, Bosk CL. Are attendings different? intensivists explain their handoff ideals, perceptions, and practices. *Ann Am Thorac Soc.* 2014;11(3):360-6. doi: <https://doi.org/10.1513/AnnalsATS.201306-1510C>
14. Halm MA. Nursing handoffs: ensuring safe passage for patients. *Am J Crit Care.* 2013 Mar;22(2):158-62. doi: <https://doi.org/10.4037/ajcc2013454>
15. Silva MF, Anders JC, Rocha PK, Souza AJ, Burciaga VB. Communication in nursing shift handover: pediatric patient safety. *Texto Contexto Enferm.* 2016;25(3):e3600015. doi: <https://doi.org/10.1590/0104-07072016003600015>
16. McMullan A, Parush A, Momtahan K. Transferring patient care: patterns of synchronous bidisciplinary communication between physicians and nurses during handoffs in a critical care unit. *J Perianesth Nurs.* 2015 Apr;30(2):92-104. doi: <https://doi.org/10.1016/j.jopan.2014.05.009>
17. Rodriguez EOL, Oliveira CS, França TRS, Andrade JS, Campos MPA, Silva FJCP. Programación del cambio de turno desde la óptica de los profesionales de enfermería. *Enferm Glob.* 2013;12(3):206-18. doi: <https://doi.org/10.6018/eglobal.12.3.157441>
18. Spooner AJ, Corley A, Chaboyer W, Hammond NE, Fraser JF. Measurement of the frequency and source of interruptions occurring during bedside nursing handover in the intensive care unit: an observational study. *Aust Crit Care.* 2015 Feb;28(1):19-23. doi: <https://doi.org/10.1016/j.aucc.2014.04.002>
19. Johnson M, Sanchez P, Suominen H, Basilakis J, Dawson L, Kelly B, et al. Comparing nursing handover and documentation: forming one set of patient information. *Int Nurs Rev.* 2014;61(1):73-81. doi: <https://doi.org/10.1111/inr.12072>

Acknowledgments:

To the CNPq for financing this project through Universal Edict 01/2016 - Process No. 431845/2016-6

■ Corresponding author:

Rafael Celestino da Silva

Email: rafaenfer@yahoo.com.br

Received: 12.13.2018

Approved: 08.27.2019

Associate editor:

Graziella Badin Aliti

Editor-in-chief:

Maria da Graça Oliveira Crossetti