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Factors associated with communication competence among surgical nurses*

Fatores associados a competência de comunicação entre enfermeiros cirúrgicos

Factores asociados con la competencia de comunicación entre las enfermeras quirúrgicas

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Abstract: **Objective:** to identify the factors associated with communication as competence among nurses in surgical centers. **Method:** exploratory, qualitative study. The participants were 43 nurses from five private hospital institutions in the countryside of Minas Gerais participated. The collection occurred in 2018 through six meetings of focus groups. The data were analyzed by inductive thematic analysis. **Results:** communication competence is associated with factors such as: care quality and safety, relationship in the work team, ways of communicating and interacting; computerization of the shift and interaction with other sectors of the institution. **Conclusion:** considering communication as an essential competence for surgical nurses, identifying factors that can influence it in a positive or limiting way should provoke the reflection of future professionals and managers in the development and implementation of strategies in the work environment that promote the development of effective communication.

Descriptors: Communication; Professional Competence; Surgical centers; Nursing; Perioperative nursing

Resumo: **Objetivo:** identificar os fatores associados a comunicação como competência, entre os enfermeiros de centros cirúrgicos. **Método:** estudo exploratório, qualitativo. Participaram 43 enfermeiros de cinco instituições hospitalares privadas do interior de Minas Gerais. A coleta ocorreu em 2018 por meio de seis encontros de grupos focais. Os dados foram analisados por análise temática indutiva. **Resultados:** evidenciou-se que a competência de comunicação está associada a fatores, como: qualidade e segurança no cuidado, relacionamento na equipe de trabalho, formas de se comunicar e interagir; informatização da passagem de plantão e interação com outros setores da instituição. **Conclusão:** considerando a comunicação como competência essencial ao enfermeiro cirúrgico, identificar fatores que possam

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influenciá-la de forma positiva ou limitante deve provocar a reflexão de futuros profissionais e gestores na elaboração e implantação de estratégias, no ambiente laboral, que promovam o desenvolvimento de uma comunicação eficaz.
Descritores: Comunicação; Competência profissional; Centros cirúrgicos; Enfermagem; Enfermagem perioperatória

Resumen: **Objetivo:** identificar los factores asociados a la comunicación como competencia entre las enfermeras de los centros quirúrgicos. **Método:** estudio exploratorio y cualitativo. Participaron 43 tres enfermeras de cinco instituciones hospitalarias privadas del interior de Minas Gerais. La recogida se produjo en 2018 a través de seis reuniones de grupos focales. Los datos fueron analizados mediante análisis temáticos inductivos. **Resultados:** se evidenció que la competencia en comunicación está asociada a factores tales como: calidad y seguridad en la atención, relación en el equipo de trabajo, formas de comunicarse e interactuar; informatización del cambio e interacción con otros sectores de la institución. **Conclusión:** considerando la comunicación como una competencia esencial para las enfermeras quirúrgicas, identificar factores que puedan influir en ella de una manera positiva o limitante debe provocar la reflexión de futuros profesionales y gerentes en el desarrollo e implementación de estrategias en el entorno laboral que promuevan el desarrollo de una comunicación eficaz.
Descriptores: Comunicación; Competencia Profesional; Centros Quirúrgicos; Enfermería; Enfermería perioperatoria

Introduction

In a hospital institution, the Surgical Center Unit (SCU) is constituted by the operating room, involving its operating rooms and recovery center, which are endorsed by a complex and stressful environment, with high technology, intrinsic variation in their work processes and the vulnerability situation of users.[1] Moreover, in this hospital area, we can highlight the multiplicity of actions of nurses, who are directed to the planning of care for surgical patients and their families, in both the performance of care actions, as well as management actions, related to the organization of the care process.[2] In this sense, communication is essential for the work process to flow assertively and with less risks to the safety and integrity of the user.

Communication can be conceptualized as an interpersonal process between peers, performed in various ways, such as verbal and nonverbal in interactions, and which has a crucial impact on the formation of social norms that, in turn, affect the individual's behavior.[3-4] In this line of thinking, communication is a competence described by the literature as primordial for the development of any work,[5] and is already recommended by the National Curriculum Guidelines (NCG) in nursing education as a tool for practice.

Among these directives, decision-making, leadership, administration and management, continuing education and communication stand out.[6] However, the latter stands out, since the practice of nurses is centered on the interpersonal relationship with patients, nursing team and multidisciplinary team, both to perform care activities and to the management of care and health services. Furthermore, it permeates and enhances the development of work and the exercise of other competencies.[7-8]

Scientific evidence points to several teaching-learning strategies about communication,[5,9] however, many nurses still report difficulty in communicating, especially in contexts that constantly need decision-making, as in the case of surgical environments.[10] However, despite the range of studies published with the theme of communication development, there is little literature regarding the characterization of associated factors.

Thus, the following research questions are presented: How is the competence of communication between nurses in surgical center units? What factors may be associated with it?

To think of communication as competence to the SCU nurse is to reflect on the ways of receiving, processing and transmitting appropriate responses to users, staff and managers, contributing to avoid misunderstandings of messages and enabling improvements in interpersonal relationships, generating direct consequences on the quality of care to users. Moreover, the non-identification of factors that may be directly related to this professional competence, for sectors that have specificities such as SCU, can lead to problems of relationships and behaviors in the team, with negative consequences for the care provided. This study aimed to identify the factors associated with communication as competence among nurses in surgical centers.

Method

Exploratory study, using the qualitative approach, approved by the Research Ethics Committee of the proposing institution under opinion number 087/2017 on February 1, 2017, with

the participants signed the Informed Consent Form. The scenario consisted of five private hospital institutions in a municipality in the State of Minas Gerais because they had SCUs near the researcher's residential headquarters. The public hospitals from this place refuse to participate in the research.

The participants were composed exclusively of SCU care nurses belonging to the selected hospitals, working for over six months in the function. The choice of these professionals refers to the fact that they have belonged to a multidisciplinary work team for some time, coordinated their own staff, held constant exchange of information and, thus, were able to describe the communication competence in the SCU.

Firstly, contact was developed with the head nurse of each SCU who passed the total number of nurses, and after these, they were formally and personally invited through an invitation letter. In addition, five nurses who were on vacation or on medical or maternity leave were excluded from the study. The initial population consisted of 52 professionals, however, nine refused to participate for no apparent reason.

Data were collected from April to June 2018, using the Focus Group (FG) technique, which ensures the researcher to grasp information on site of the research participants through placements made by the group.[11] The FG occurred in the work institutions themselves, in rooms suitable for group discussion, at interval times more appropriate to the participants, lasting an average of 55 minutes and conducted by the researcher (moderator) and a research assistant (observer). The number of participants in each group was organized and distributed according to the chart 1:

Chart 1 – Distribution of the number of participants in each focus group carried out in the selected hospital institutions. Brazil. 2019.

Hospital Identification	Number of FG performed	Number of nurses participating in the FG
Hospital I	1	8
		6

Hospital II	2	6
Hospital III	1	7
Hospital IV	1	9
Hospital V	1	7

Two groups were conducted in Hospital II with different nurses, due to different times available for all to participate.

The groups were recorded and preceded by the completion of a small questionnaire to characterize the participants. Subsequently, the moderator problematized the discussions in the focus groups through the previously listed guidance questions. The data transcribed from the discussions were added to the notes and reflections of the moderator and the observer and submitted to inductive content analysis,[12] which identifies, analyzes and reports the patterns (themes) regarding the data; organizes and describes their set in detail. Through its theoretical freedom, thematic analysis provides a useful and flexible research tool that can potentially provide a rich, detailed and complex report.[12]

There was follow-up of the following stages: transcription and reading of the data; coding; search for themes through grouping codes; reviewing topics; ongoing analysis to improve the specificities of each theme; and, finally, final analysis of the selected excerpts.[12] The letter "N" for nurse was chosen in order to preserve anonymity, followed by the identification of the hospital where the study was conducted, according to the increasing chronological order of the groups of each hospital (Example: N7 - Hospital I). Moreover, for hospital II, where two focus groups were performed, it was identified whether it was group one or two (Example: N1 - Hospital II focus group 1).

Results

Participants were 43 nurses and the sociodemographic description was presented in Chart 2:

Chart 2- Sociodemographic data of nurses from Surgical Center Units in the countryside of Minas Gerais. Brazil. 2019.

		Frequency	Percentage
Sex	Female	39	90.6
	Male	4	9.4
Age group	20-29 years	17	39.6
	30-39 years	15	34.8
	40-49 years	11	25.6
Preparation during Academic Training for SCU*	Yes	30	69.7
	No	13	30.3
Specialization in the Surgical Center area	Yes	7	16.3
	No	36	83.7
Specialization in other areas	Yes	10	23.3
	No	33	76.7
Time working in the selected SCU*	1-2 years	9	20.9
	3-5 years	8	18.6
	6-7 years	8	18.6
	7-8 years	8	18.6
	9-10 years	5	11.6
	10 years or more	5	11.6

*Surgical Center Unit (SCU)

The specializations of other related areas were: Intensive Care Unit (ICU) with emphasis on Urgency and Emergency, Audit, Health Management and Hospital Infection Control. In addition, 24 (58%) stated that they had professional experience in SCU in other hospitals with an average of three years of experience. Data from the recordings of the groups showed that communication competence is associated with several factors, distributed here in five categories: "Care Quality and Safety"; "Interpersonal relationship in the work team"; "Ways to communicate and interact in SCUs"; "Computerization of shift handovers" and "Interaction with other sectors of the Institution".

Category 1: Care quality and safety

The participants recognize the importance of communication competence for the work process of nurses in the SCU, in ensuring the quality and safety of the user; however, this is not always performed in the ideal way. Moreover, communication was pointed out as a key part for the use of other competencies that confer quality of care, such as leadership, planning and teamwork:

> *I think that every good nurse must have effective communication because all that girls have said* [planning, leadership, teamwork, unit management] *if it has any communication failure is going to have some impact on the process as a whole. Without this communication clearly and in fact, this quality of information all this will be lost in the process as a whole.* (N7 - Hospital I)
> [...] *I think that communication is a very important competence that nurses must have to work in the Surgical Center for safety and quality before so many equipment, although we communicate, we do not always make an effective and correct communication* [...]. *Yes, because after all, you have to go back to what everyone said, which is teamwork, you work with a lot of people, know how to communicate, understand what people are talking about, what they want from you at that moment, I think it is also very important so you need to have communication.* (N5 - Hospital II focus group 2)

Category 2: Relationship with the teamwork

Although the participants highlighted that communication is interconnected with several professional competencies of nurses, the groups more strongly associated how communication can interfere in the interpersonal relationship between the teams and how it can alleviate internal conflicts:

> *Communication competence is present in all other activities and competencies of nurses here, but I think it is even more present in the relationship with colleagues* [...]. *There is a lot of conflict here, and most of the time when we cannot settle with the doctor then we talk to the clinical director, so that is how our communication, our dialogue did not work out we talked to her and then she talks to them then she settles with them.* (N4 - Hospital II focus group 1)
> *This part of communication with the relationship is the difficulty, in dealing with physicians* [...]. *Get in that getting-by game we have to have a lot, that easy way to talk to the doctor, and technicians. It is already very armed, so the nurse's ability also enters to know how to deal very well with the doctor inside the Surgical Center, and it is communication that allows dealing with conflicts and relationships.* (N3 - Hospital V)

Category 3: Ways of communicating and interacting in the SCU

In order to maintain healthy work relationships and safety of the work process, the participants revealed some forms of communication used, such as verbal forms in a calm and firm way, virtual devices, written form as in the medical records, among others:

> [...] *I think that this nurse in the sector he can communicate through instruments that we have, whether verbal in a clear, calm way without shouting, but firm, either by e-mail or creation of any process.* (N7 - Hospital I)
> [...] *we have other forms of communication besides WhatsApp Email, meeting minutes, training attendance list, non-compliance report* [...]. *We have a passbook on duty too that we spend the shift through the book.* [...] *all noted there, in addition to the Systematization of Nursing Care* [...]. (N3 -Hospital I)

Category 4: Informatics in the shift handover

In the discourses, the nurses highlighted the use of a computerized system as an efficient means of communication for shift handover, which can be accessed in all sectors of the institution. The information inserted in these systems is used for data collection, analysis and supervision of hospital quality indicators. However, one group pointed out that the communication on duty was made by telephone contact with medical and nursing staff and verbal shift.

> *We use a Strategic System of Occurrences* [...] *then we make this communication and it is not lost, it is recorded; where the whole team opens and that directs to the responsible people who will be able to solve this problem related to the shift, and then passes this and the team she should receive the return of what was done to correct the failures so this happens in the hospital team.* (N2 - Hospital II focus group 1)
> *Here we do not have computerized system to handover shifts, we talk by phone or verbally even.* (N1- Hospital I)

Category 5: Interaction with other sectors of the institution

Finally, during the discussions, the participants reported several experiences regarding the lack of material, equipment, the need for repairs to the devices, lack of clothing, surgical aprons and surgical fields, which required the nurse to communicate with both their team, managers or even

other institutions through dialogue, partnerships and a good coexistence, aiming at achieving organizational goals. In this perspective, nurses consider it relevant to strengthen the communication links between the support sectors such as Material and Sterilization Center (MSC), laundry and others.

> [...] *question of the material is not only the scheduling of surgery, we have to have a communication, what will need? When are you going to need it? Because we have time to sterilize the material, receive or wash, process some instrument, got it? That takes time. Thus it needs to have communication between the MSC and SCU sectors* [...]. (N5- Hospital III)
> *With MSC we have communication all day. I need the material, I use such an hour, speed it up there; already gives priority to the material in the autoclave; Leave the autoclave open and I soon get down. So it is all the time, no clothes arrived, you see what you are going to do to improvise, use another kind of field*? (N6 - Hospital III)

Discussion

The study revealed a predominantly young population with multiple specializations, corroborating other researchers who evidenced the insertion of young nurses in complex care sectors and also identified difficulties in establishing effective communication, which is one that an individual knows how to filter and organize the information they should transmit and choose the ideal way to use the channels to spread their thoughts in their work process.[13-14] The variety of specializations demonstrates the concern and need of the professional to qualify his/her work, possibly attributed to gaps in academic training, as well as to the complexity of the market.

The nurses of the selected SCUs recognized the relevance of using communication for care safety and quality; however, there is need to reflect on what is ideally proposed and what is actually accomplished about this competence. American and Brazilian researchers found that nurses do not have a clear and effective communication during hospital care, which can be attributed to the lack of improvements offered by the employer, organizations with systems of authoritarian hierarchies

and the power differentials associated with seniority and professional status, in addition to young professionals with little experience.[13,15]

The transmission of information by various hierarchical levels and by several professionals can cause ineffective communication; therefore, it may affect the quality of the services provided by these professionals and consequently the patient safety. In this sense, it is worth saying that the organizational structure has the potential to interfere positively or negatively in the communication process between its constituent members. It is worth mentioning that communication is one of the five main problems that affect patient safety; therefore, it is related to the quality of care, where actions aimed at improving the process of issuing and transmitting information are part of the worldwide guidelines for standardization and implementation of protocols for the reducing adverse events, greater care safety and quality.[16-17]

Researchers showed that the level of patient safety culture in SCUs is below that recommended in the literature.[18] In this regard, they presented through the general mean of scores, a culture of incipient safety, and when evaluated by domains, job satisfaction and stress perception were positive. They also identified that teamwork climate, safety climate, perception of unit/hospital management and working conditions were indicated as negative domains, and interventions were suggested in order to promote a safe environment, such as continuing education processes and the introduction of new tools, such as the surgical safety checklist and systematized communication.[18]

Communication competence was also associated with interactions with the work team, that is, with the ability to interfere in interpersonal relationships between team members. Failures in obtaining, processing and transmitting information can lead to dissatisfaction and stress of professionals generating internal conflicts. Thus, work environments where they have a constant dialogue and exchanges of knowledge enable the easing of conflicts and possibly a collective participatory planning that enhance the integration of the various professionals.[19]

In the management work process of surgical nurses, communicative competence is fundamental for adequate and productive interactions; this implies knowing the elements of communication, knowing how to dialogue, knowing deeply the dynamics of work to find gaps or alternatives to identify and solve the needs of users, creating bonds, adding humanization to care.

Thus, nurses are recognized as the professional who should provide communication between the various health team workers, as well as with their users, thus meeting the needs of those who require shared solution, contributing to comprehensive health care.[20]

To ensure healthy interactions, communication competence can be performed in several ways. Verbal communication concerns language and writing, as well as the sounds of the emitted words. Concerning nonverbal communication, it refers to the use of gestures, touch, posture, expressions, objects that surround one person or position before the other.[21]

Moreover, the use of social media and applications, such as WhatsApp, has already been used in the academic environment in the nursing field, as some studies point out, to facilitate communication, information exchange and learning of health practices.[22-23] These tools have the advantages of sharing content for the development of discussions of various topics, the possibility of exposing their opinions and sharing knowledge and clinical experience.[24] Thus, it is increasingly observed the incorporation of technological tools for the development of effective communication in the hospital environment, and another example is the use of computerized systems for shift handover, which was pointed out in our study.

The use of computerized resources is increasingly gaining space in hospital institutions and represent tools to assist data transmission during the shift; encouraging that records remain recorded and can be accessed at any time, thus speeding up the transfer of information and affecting the observance of the working day.[25-26]

However, not all institutions have financial resources available to afford these technologies, thus stimulates, among the resources used for the handover, the interaction between the nursing

team that is finishing the shift and the one that begins the subsequent shift, illustrating, with additional writing resources, which can be easily accessed later, as in slates, paper and slide censuses.[26]

Thus, technological innovations are realities of the nursing work process, being important to reflect on the challenge of following technology without neglecting the humanitarian aspects inherent to the profession. Along these lines, there is evidence that points to the benefits of computerization, and care should be advised by equipment, but conducted by people to articulate the humanization of care to the evolution of technology and science.[27] Finally, so that it can size surgeries, as well as care for patients undergoing surgical procedures, it is necessary to have daily communication with several units from different areas/sectors.[28]

In this direction, the SCU does not work alone, and has several sectors to support its activities, such as: MSC, maintenance, satellite pharmacy, warehouse, eating area for employees, cleaning service, laundry that collects dirty clothes, transportation area and hospitalization, offices such as intensive care units, and others, essential for the proper operation of this field. Participatory communication between health professionals and managers, with the help of integration tools, becomes essential for the good progress of the institution's processes.

In this sense, the use of teaching strategies that can enhance the development of communication skills in nursing is essential, since students are admitted increasingly younger in higher education. Among the tools that can be applied, the potential of clinical simulation stands out, which enables students to experience situations that require nurses to make decisions in health care and nursing scenarios; formalized documents of shift handovers or notices/reports; communication channels; multidisciplinary meetings and discussion groups.[5] Furthermore, training centers should be concerned with developing and/or implementing active learning methodologies for future professionals in their curricula, aiming to contribute to their knowledge of this competence.[5,29-30]

A limitation of the investigation is its development in only private hospitals and with exclusive participation of nurses; considering that multiprofessional teamwork is a characteristic of SCUs, the participation of other professional categories in similar research may bring contributions to future nurses in this area.

Conclusion

The study allowed identifying the factors associated with communication as competence among nurses in surgical centers. In every work process involving human interactions, the proper development of this competence is essential. The analysis allowed associating this factor with care quality and safety, interpersonal relationship in the work team, ways of communicating, computerized system for shift handover and interaction with other sectors of the organization.

Having effective communication within a health institution represents more than having good conversations and a good interpersonal relationship with colleagues and superiors, or even knowing how to make written reports and send emails. The dialogue, in this context, is related to benefits, which are shown in the way professionals communicate with customers, colleagues, leaders. Thus, in addition to helping in the harmonization of the environment, the development of an effective dialogue also brings excellent short, medium and long-term results to the organization, and users.

The execution of studies that can characterize and support the development of communication competence in nurses is paramount, because it allows identifying existing gaps concerning the training of professionals, besides raising managers in the implementation of strategies that can improve their workers, such as through integration with training centers. Furthermore, this study can contribute greatly to SCU, because it allows the professionals' reflection who work there, on the implications of the ineffective use of communication, with repercussions on the recovery conditions of individuals. Furthermore, other studies on the subject

in different scenarios should be developed, and from the perspective of different health professionals, including hospital institutions of a different legal nature.

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