

Essential gear: Conceptions of nursing technicians about nurses' performance in the surgical center

Engrenagem essencial: concepções de técnicos de enfermagem sobre a atuação do enfermeiro no centro cirúrgico

Engranaje esencial: concepciones de técnicos de enfermería sobre la actuación del enfermero en el centro quirúrgico

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ABSTRACT: Objective: To analyze the conception of nursing technicians about nurses' performance in the surgical center. **Method:** This is a qualitative, descriptive research, conducted through an interview with nursing technicians working in a surgical center, in the second half of 2024. Data were evaluated according to Bardin's content analysis. **Results:** The study included 14 nursing technicians who highlighted nursing care aimed at providing technical support, managing conflicts, harmonizing interdisciplinary communication, attention to surgical scheduling, and permanent education. Furthermore, nursing care was associated with the performance of care procedures, as occurs in the everyday practice and culturally. **Conclusion:** We identified conceptions focused on the importance of the presence of the nurse as a care manager and technical reference. New research is suggested in other scenarios to increase the knowledge and highlight the role of nurses in the management of care with the surgical patient.

Keywords: Nurses. Surgical centers. Nursing team.

RESUMO: Objetivo: Analisar a concepção de técnicos de enfermagem sobre a atuação do enfermeiro no centro cirúrgico. **Método:** Pesquisa qualitativa, descritiva, realizada por meio de entrevista com técnicos de enfermagem que trabalham em um centro cirúrgico, no segundo semestre de 2024. Dados avaliados pela análise de conteúdo de Bardin. **Resultados:** Participaram da pesquisa 14 técnicos de enfermagem que destacaram o cuidado do enfermeiro voltado para fornecer suporte técnico, gerir conflitos, harmonizar a comunicação interdisciplinar, atuar com atenção ao agendamento cirúrgico e à educação permanente. Ainda, o cuidado do enfermeiro foi associado à execução de procedimentos assistenciais, como ocorre no cotidiano e culturalmente. **Conclusão:** Identificaram-se concepções voltadas para a importância da presença do enfermeiro como gestor do cuidado e referência técnica. Sugerem-se novas pesquisas, em outros cenários, para ampliar o conhecimento e ressaltar o papel do enfermeiro na gestão do cuidado com o paciente cirúrgico.

Palavras-chave: Enfermeiras e enfermeiros. Centros cirúrgicos. Equipe de enfermagem.

RESUMEN: Objetivo: Analizar la concepción de los técnicos de enfermería sobre la actuación del enfermero en el centro quirúrgico. **Método:** Investigación cualitativa, descriptiva, realizada mediante entrevista con técnicos de enfermería que trabajan en un centro quirúrgico, en el segundo semestre de 2024. Datos evaluados por medio del análisis de contenido de Bardin. **Resultados:** Participaron en la investigación 14 técnicos de enfermería que destacaron el cuidado del enfermero orientado a proporcionar apoyo técnico, gestionar conflictos, armonizar la comunicación interdisciplinaria, actuar con atención a la programación quirúrgica y a la educación permanente. Además, el cuidado del enfermero se asoció a la ejecución de procedimientos asistenciales, como ocurre en el cotidiano y culturalmente. **Conclusión:** Se identificaron conceptos centrados en la importancia de la presencia del enfermero como gestor del cuidado y referencia técnica. Se proponen nuevas investigaciones, en otros escenarios, para ampliar el conocimiento y resaltar el papel del enfermero en la gestión del cuidado del paciente quirúrgico.

Palabras clave: Enfermeras y enfermeros. Centros quirúrgicos. Equipo de enfermería.

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INTRODUCTION

The surgical center (SC) is a complex work environment, where anesthetic and surgical procedures of various complexities are performed, of high demand for elective, urgent, and emergency surgeries¹. In this sector, invasive procedures, which require detailed attention, high precision, and effective coordination of the members of the nursing team, take place².

It is a dynamic, immediate workplace, which sometimes leads to excess work, overburden, and coping with stressful situations. Healthcare professionals who work in surgical centers must have efficiency and experience to meet the demands, a context that requires clinical reasoning and precise and rapid decision-making so as not to cause harm to the patient³.

The nursing team plays a crucial role in the SC and is responsible for ensuring the care, safety and well-being of patients before, during, and after anesthetic-surgical procedures. This team works as a communication link between the patients and other members of the multiprofessional team in search of efficient communication and relationship².

The nurses' care to the patient in the SC is based on the organization of the physical space, regulated by ANVISA [National Health Surveillance Agency] Board Resolution (RDC) No. 50, of 2002, and in the publications of the Brazilian Ministry of Health related to the safety of the surgical patient, such as RDC No. 36, of 2013, which instituted actions in health services and establishes the obligation to create a patient safety center in the health service and to notify adverse events associated with health care^{4,5}.

Nursing care is structured in the Nursing Process, which is organized in five interrelated, interdependent, and cyclic stages: Nursing evaluation, diagnosis, planning, implementation, and evolution⁶. In addition, in the surgical environment, nurses work in processes involving surgical treatment, through management and care actions, by mobilizing strategic-cognitive skills together with the interdisciplinary team^{1,7}.

The role of nurses is decisive in this context because, in addition to leading the team, it is responsible for the planning, organization, and provision of care. Therefore, understanding the work of nurses and their role in this environment is important to promote the safety and effectiveness of care^{8,9}.

This study is justified by the important role played by nurses in the SC. Recognizing and appreciating the specific role of each professional by the team members is paramount. However, we only found studies whose authors evaluated nursing care in the SC from the perspective of the patients

— concerning the activities of the nurse in the SC —, in a literature review, and another from the perspective of nurses^{1,10,11}.

It is also noteworthy that we identified no publications, whether in national or international literature, that address this topic from the same perspective, evidencing a scientific gap. Given this scenario, it becomes relevant to investigate how nursing technicians perceive the role and performance of nurses in the SC. Hence, taking this into consideration, we question: What is the conception of the team of nursing technicians about nurses' performance in the SC?

OBJECTIVES

To analyze the conception of nursing technicians about nurses' performance in the SC.

METHODS

This is a qualitative¹², descriptive study, developed in a SC of a medium-sized public hospital located on the outskirts of the state of Rio Grande do Sul, Brazil, in the second half of 2024. To structure the report, the checklist for qualitative research called "Consolidated criteria for reporting qualitative research" (COREQ)¹³ was used.

The aforementioned institution has six operating rooms in which 654 monthly surgeries are performed on average. The study participants were nursing technicians working in the SC for at least three months, regardless of the work shift. Exclusion criteria were defined as: Nursing technicians on leave by medical certificate, leave of any nature, or vacation during the period of data collection.

The first contact with the participants took place in a sectoral meeting that included the participation of 22 nursing technicians out of 30 who work in the SC. At the time, the research project was presented; 14 workers showed interest in participating. These workers were selected and, subsequently, the interviews were scheduled. Shortly after, the semi-structured interviews began, the first being considered as a pilot test and, as there was no need for structural and semantic adequacy of the questions, it was incorporated into the study corpus. The interviews took place in the morning, afternoon, or evening shifts, in a private room, at a time previously scheduled with each participant.

During the interview, we asked some of the following questions: What is the importance of nurses' performance

in the SC? What is the role of the managing nurse in the SC? In your training in the nursing technical course, what did you learn about the performance of nurses in the SC? What patient care do nurses provide at the SC? How do you relate the performance of nurses in the SC with patient safety? How is the communication between the team of nursing technicians and nurses in the SC? In your work institution, do you participate in events focused on health education concerning care for the surgical patient? The interviews lasted for 18 minutes on average.

Data were collected from the 14 professionals who manifested interest in participating, reaching the theoretical saturation of the data¹⁴. Afterwards, the interviews were transcribed in full in a Microsoft Word file, without using software. Subsequently, content analysis was carried out¹⁵.

The research respected the ethical requirements recommended for research involving human beings, through Resolution No. 466, of 2012, of the National Health Council. All participants signed an Informed Consent Form, in two copies¹⁶. In the presentation of the results, pseudonyms were used in order to preserve anonymity: Interviewed 1 (I1), Interviewed 2 (I2), and so on. The research was approved by the research ethics committee of the proposing institution, under Opinion No. 6.940.182.

RESULTS

The interviews included 14 nursing technicians, thirteen women and one man. The mean age group was 36 years and the average time since working in the SC of the institution was eight years.

When analyzing the data, we verified a deductive category that includes several themes structured in three inductive

categories (Chart 1). It should be noted that some essential competencies of nurses, such as ethics, effective communication, planning, leadership, patient safety, and decision-making, were mentioned by the study participants, being considered transversal.

Care assignments of nurses in the surgical center

As for the care pillar of the nurses' performance in the SC, the nursing technicians team mentioned that, for care to be provided holistically, it is essential that the nurse provide qualified technical support and be present during the care to the surgical patient:

The role of nurses in the surgical sector is to provide support. If I need it, I call *him* (nurse). The nurse must be aware of my attitudes toward the patient. (I1)

Supporting the entire team is paramount. We always have a question, there's always something; the nurse comes to help us solve it. (I7)

In addition, some nursing technicians identified the performance of nursing care more focused on exclusive invasive procedures. Passing probes was mentioned:

Nurses have their duties, which include passing probes..., [they] perform a lot of jugular puncture. (I2)

[...] they pass probes, organize shift reports, request material. (I3)

[...] what nurses do the most is bladder scanning. (I7)

Chart 1. Themes resulting from data analysis, structured in inductive categories. Santo Ângelo (state of Rio Grande do Sul, Brazil), 2026.

Deductive category	Themes	Inductive categories
Conceptions of nursing technicians about nurses' performance in the SC	Care for the health of the surgical patient Care supervision Procedures exclusive to nurses Surgical safety	Care assignments of nurses in the SC
	People management Management of materials and equipment Contact with administration Resolution of problems and conflicts Surgical scheduling	Managerial assignments of nurses in the SC
	Permanent education Sectoral meetings	Educational assignments of nurses in the SC

SC: Surgical center.

Nursing care assignments were also related to issues involving patient safety in everyday care practices. Statements related to the international patient safety goals in the perioperative period and the surgical checklist emerged:

[...] the nurse takes care of the part of [the patient] having and wearing the identification bracelet. (I4)

They provide guidance for us to receive the patient who comes from the unit based on the Surgical Safety Checklist..., to confirm fasting, if patients have an allergy to medication... (I2)

... the communication between technicians and nurses occurs all the time; from the moment the patient enters the door, we already assess them; when there's shift report for the recovery room, we talk about the whole case... (I1)

Managerial assignments of nurses in the surgical center

Regarding the managerial pillar of nurses, some nursing technicians listed activities and the importance of this professional in the everyday life of the SC. They mentioned assignments regarding the work shift, the distribution of activities, the control of human resources, and the direct contact with the hospital management:

[...] The nurse organizes the entire staff, the operating room, and also plans the organization of physicians and anesthesiologists. (I7)

Nurses have the role of managing, they do all the bureaucratic stuff, the work shift, the routines, all the documentation stuff. They make purchases..., suspend surgeries, deal with materials..., the maintenance of computers and cautery, they support the whole team. (I6)

Nurses show us the way of all surgeries, for example, we have the surgical map... Every day, there's a list of technicians who will be part of such and such surgery; this is very important because there's a direction for us to follow. Nurses are always

attentive to very long surgeries, they come to the room to change us so we can take a break. (I9)

Nurses deal with a more a bureaucratic part, in which they will have direct contact with the hospital board. (I11)

Some professionals mentioned the management of the sector, in which the nurses' performance had a prominent role in the conduction of atypical situations related to care:

It is important to have a nurse, 'cause when there's some problem, we need them to guide us. You must have a nurse in the sector to give us direction and say that if [the surgery is scheduled] that time, it is that time; otherwise, they (physicians) want to admit the patient and do the surgery as they think best. (I2)

The nurse solves all problems before the patient arrives. (I4)

In the interviews, nursing technicians emphasized the availability of the nurse for the proper operation of the SC, as well as how they are indispensable in this complex environment, as an essential gear that allows everything to work smoothly.

Nurses assist in activities related to our sector everywhere, they go the Sterile Processing Department, to the Pharmacy, the Recovery Room. (I2)

Their importance lies in command; without nurses, nothing works. (I9)

Nursing technicians reported that the communication of the nursing team is satisfactory and occurs verbally or in writing in the everyday practice, through work shifts, shift reports, on patient admission, inside the surgical room. There are also meetings promoted by nurses in order to provide opportunities and improve communication:

In shift reports, we have a small meeting in which the nurse informs our afternoon duties and, throughout the afternoon, rooms became available and we organize them, according to the demand for surgery and the nurses' organization. They say: room X is available, you can start organizing it [...]. (I12)

Our communication with the nurses is good and starts at the beginning of the shift; they distribute two [nursing technicians] to each room. And then, throughout the morning, they communicate us: So-and-so will have lunch, So-and-so will enter room X, surgery Y will start now, surgery W will start later. (I2)

Another tool used in care and valued during the interviews — and that brings communication and patient safety together — was surgical scheduling, aiming at aligning, since the beginning, the correct patient information, procedure, surgeon, anesthesia team, preoperative preparations, equipment, blood reserves, intensive care unit, and so on.

Nurses work focused on patient safety to follow the flow of the surgery schedule. (I3)

Nurses are responsible for scheduling, they assist in scheduling, in separating material, separating the team, checking how many technicians there are, the number of rooms at the same time, this kind of stuff. (I10)

Educational assignments of nurses in the surgical center

Nursing technicians valued the involvement of nurses with permanent health education focused on the care of the surgical patient. They highlighted the role of nurses in relation to the professional development of people:

Nurses provide training for us (technicians). (I2)

They give training, provide guidance on priorities for patients. (I10)

The interviews also showed that the developed training has monthly periodicity, in the online modality, and that the last topic addressed was cardiopulmonary resuscitation:

Our last training was about cardiopulmonary arrest. (I9)

There's a lot of training. We can access lectures on our phones, online, there are a lot of questions and, at the end, we take a test. (I14)

We verified, based on the statements, the recognition and gratitude to the management of the hospital institution for investing in the professional development of employees. The interviewees also highlighted the existence of a group in the instant messaging application WhatsApp, aimed at organizing the training and sharing educational materials:

The hospital invests in training, 'cause nursing is always changing, improving... (I1)

We participate in trainings and meetings. We have a WhatsApp group, so they're always sending videos. (I13)

The presented results constitute important subsidies for the critical analysis of the conceptions of nursing technicians about nurses' performance in the SC. The findings will be discussed in the next section, considering the related scientific evidence.

DISCUSSION

The SC is a complex and unique hospital sector, of restricted access, due to the high technological density, the various diagnostic and therapeutic procedures, the variation in work processes, and also the vulnerable situation of the patients¹⁷. Therefore, the work processes require qualified teams, with a remarkable interdependence of the individual's and the team's performance to meet the health needs of patients.

The nursing team of the SC is coordinated by nurses, who are responsible for care, managerial, educational, and research assignments. The nurses' performance in the SC requires skills such as empathy, flexibility, leadership, communication, and agility. Planning and decision-making are also mentioned¹⁸, in addition to the planning of the unit and nursing care, relational competence and ethics¹⁷. These assignments were recognized and evidenced in the reports of the study participants.

The role of the nurse in the SC is crucial and recognized by the technical team substantially. This result is consistent with evidence of a review study, whose authors point that the nurse is the support pillar of the team and that their activities permeate management, care, and education, resulting in an adequate surgical treatment for the patient¹.

It is evident, by the participants' statements, that managerial assignments prevailed in the performance of nurses when

compared to the care and educational ones. In this regard, authors of a study that evaluated the workload perceived by the nurses of a SC and the time/activities that influence it identified that the most prevalent activities, corresponding to 47.14% of the time measured, were: patient evaluation and documentation of provided care; planning of the shifts; resolutions of administrative issues; follow-up of anesthetic induction; and team management¹.

Moreover, nursing care was associated with the performance of probing and care procedures, as occurs in the everyday practice and culturally. Accordingly, it is emphasized that nurses working in the SC assume a leadership position, needing to articulate managerial and care knowledge, focusing on patient-centered care².

It is also noteworthy that the participants evidenced nurses' performance in relation to the requirements of the Surgical Safety Checklist¹⁹, a primary instrument for patient safety. Its use reduces the occurrence of harms or incidents, increasing the safety of surgical procedures, by checking a list of items²⁰.

The nurses' concern with breaks during surgeries for the nursing team is highlighted, which avoids overburden and contributes to patient safety. The culture of safety at the organizational level involves, in addition to the SC, actions of institutional nature, with delimited and structured processes²¹.

The planning of surgeries and the organization of the rooms are the responsibility of the SC nurse. In order to meet all the demands and ensure a safe process, nurses should consider surgical schedule with time, dimensioning duration and staff, number of available rooms, equipment, support services and schedule, thus obtaining medical and patient satisfaction^{22,23}.

The interpersonal relationship in the SC may also generate conflicts. The management of these conflicts by nurses is fundamental for the proper operation of the sector, as it increases integration and improves the climate in the work environment. In addition, shared management, dialogue, and respect contribute to the better progress of the work of the multiprofessional team^{18,24}.

Nurses also engage in scheduling surgeries, receiving scheduling requests, sending documents to the health insurance plan and clarifications for surgical permits²². Surgical scheduling aims to ensure that teams, equipment, and materials are prioritized in emergency, urgent, and elective surgeries. In this sense, several technologies have progressed as tools that serve as a basis for surgical scheduling and can be used as allies in the organization of the SC^{25,26}.

Another tool related to safety and communication, pointed out in the interviews, was the surgical map, through which each team member is previously assigned to assist in a given procedure/operating room. Authors of a study reported the development and implementation of a surgical map panel, with automation for visualization of information about surgery, team, status, risks, and preoperative preparation; they highlighted how this method assists in the communication, safety, and care process of the multiprofessional team²⁷.

Investments in the educational process was highlighted by the participants as an assignment of nurses in the SC. Permanent education helps the professional to have more technical capacity, provides scientific knowledge, skills and competencies, transforming their work reality. Nurses, by playing the role of educators, contribute to decision-making, providing welcoming and assistance²⁸. In addition, they involve the nursing team in the care process with a view to the quality of care²⁹.

As for the use of WhatsApp as a technology tool, it offers support in permanent health education, as it is a tool of easy access and use, allowing quick contact between professionals and working groups³⁰. It is imperative to plan and develop training aimed at technical-scientific evolution and numerous processes present in the SC to ensure the quality and safety of care¹.

We identified no statements related to the nurses' performance in SC and care for infection control, surgical positioning, and injury prevention, which may be implied in the surgical safety protocol. Likewise, we observed a gap in relation to the nursing process as a method used by the nurse to organize the care. Moreover, we could not identify similarities with previous studies, both national and international, considering that none of them addresses the topic from the same perspective adopted in this study, making it impossible to compare beliefs and perceptions of professionals in different contexts.

As study limitations, we mention the number of participants and the fact that the study was conducted in a single hospital institution, which may restrict the generalization of the results. Thus, we suggest future investigations in different care realities in order to deepen and broaden the understanding of the presented findings.

CONCLUSION

In the present study, we analyzed the conceptions of nursing technicians about nurses' performance in the SC, which comprise care, managerial, and educational assignments. Managerial assignments demand a considerable time of the

nurses' performance; however, we observed that nursing technicians identified the decisive participation of the nurse in direct care, whether in the evaluation of patients, the performance of exclusive procedures, the follow-up of severe patients, or in the actions of the surgical safety protocol. Nurses' assignments are permeated by essential competencies such as ethics, effective communication, planning, leadership, and decision-making.

Nurse's performance in the SC requires the mobilization of technical-scientific and theoretical-practical knowledge, strategic-cognitive competencies and skills, mainly to provide technical support, manage conflicts, harmonize interdisciplinary communication, work with attention to surgical scheduling, implement permanent education, and lead the team for effective and safe nursing care.

New research, in other scenarios, is suggested to increase scientific evidence, as well as highlight the role of nurses in care, management, education, and research in the SC.

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CONFLICT OF INTERESTS

The authors declare there is no conflict of interests.

AUTHORS' CONTRIBUTIONS

RFG: Conceptualization, Writing – original draft. FCPR: Writing – review & editing. SLG: Writing – review & editing. LLD: Writing – review & editing. ERRB: Formal Analysis, Writing – review & editing. VLLB: Conceptualization, Methodology, Supervision.

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