APPLYING ANESTHESIA DURING SURGERY: AN EXCHANGE BETWEEN NURSING KNOWLEDGE AND CARE

Momento anestésico-cirúrgico: transitando entre o conhecimento dos(as) enfermeiros(as) e o cuidado de enfermagem

Momento anestésico y quirúrgico: transitando entre el conocimiento de los(las) enfermeros(as) y el cuidado de enfermería

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ABSTRACT: Objective: To check the knowledge of nurses with regard to nursing care at the moment of applying anesthesia during surgery at a public hospital in the western region of the state of Santa Catarina. **Method:** A descriptive-exploratory and qualitative field study that performed semi-structured interviews with seven nurses, and used observation and logbook records. **Results:** The results were categorized into knowledge and care and they demonstrated that nursing professionals are concerned with both, thus minimizing humanized and individualized care. It was observed that the essence of caring is difficult to integrate with scientific knowledge. **Conclusion:** It was found that some nurses do not perform essential functions, for they enter into a work routine in order follow norms and rules.

Keywords: Anesthesia. Perioperative nursing. Nursing care.

RESUMO: Objetivo: Verificar o conhecimento dos enfermeiros(as) de um hospital público da região oeste do estado de Santa Catarina sobre o cuidado de enfermagem no momento anestésico-cirúrgico. **Método:** Estudo de campo, descritivo-exploratório, qualitativo, utilizando-se entrevista semiestruturada com sete enfermeiros, observação e registros em diário de bordo. **Resultados:** Os resultados foram categorizados em conhecimento e cuidado e demonstram que os profissionais estão preocupados com o fazer, minimizando o cuidado humanizado e individualizado. Observou-se que a essência do cuidar reluta em emergir e permanecer integrada ao conhecimento científico. **Conclusão:** Percebemos que alguns enfermeiros não exercem funções prioritárias, entrando na rotina de trabalho, de modo a seguir normas e regras.

Palavras-chave: Anestesia. Enfermagem perioperatória. Cuidados de enfermagem.

RESUMEN: Objetivo: Verificar el conocimiento de los(las) enfermeros(as) de un hospital público de la región oeste del estado de Santa Catarina sobre el cuidado de enfermería durante el momento anestésico y quirúrgico. **Método:** Estudio de campo, descriptivo y exploratorio, cualitativo, utilizándose entrevista semiestructurada con siete enfermeros, por medio de observación y registros en cuaderno de bitácora. **Resultados:** Los resultados fueron categorizados en conocimiento y cuidado y demuestran que los profesionales están preocupados con el hacer, minimizando el cuidado humanizado e individualizado. Se observó que la esencia del cuidar resiste en emerger y permanecer integrada al conocimiento científico. **Conclusión:** Percibimos que algunos enfermeros no ejercen funciones prioritarias y por lo tanto entran en la rutina de trabajo de modo a seguir normas y reglas.

Palabras clave: Anestesia. Enfermería perioperatoria. Atención de enfermería.

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INTRODUCTION

A surgical center (SC) is a highly complex unit that has technologies and procedures that invade patients' privacy. Thus, the importance of individuality within nursing care and the humanization of the nurses involved in this process requires that nursing professionals have extensive knowledge about the perioperative period, especially in relation to when anesthesia is applied during surgery.

A patient's minimal time in the SC does not exclude the need for excellent and qualified multi-professional nursing care. The Systematization of Perioperative Nursing Care (*Sistematização da Assistência de Enfermagem Perioperatória* — SAEP) aims to ensure the safety of the patients and the team involved in the operation. The nursing team should establish and develop strategies for pre-surgical patient care. These strategies should be developed according to the particularities of each of the patient's surgical procedures. Care must be given according to specialized knowledge and in order to meet the needs arising from the procedure performed[1].

The main objective of the SAEP is to guarantee that care is properly planned throughout the perioperative period. The perioperative period takes place during the preoperative period (when the patient is informed of the need to perform a surgical procedure and be hospitalized), the intraoperative period (the surgery itself), and the postoperative period (after surgery, the recovery period). In the postoperative period, the patient may present complications due to the anesthesia applied during surgery, since there may be inadequate preoperative preparation. Starting in 2002, the SAEP became a requirement of the Federal Nursing Council (COFEn) in order to assist nursing and medical teams, in addition to all other parties involved in ensuring safe patient care[2].

Nurses are able to coordinate all of the stages of the perioperative period, allowing for a safe, appropriate, and aseptic environment for the patient and the team during the application of anesthesia in surgery. Given this context, nurses must be alert to any and all reactions that the patient may present[1].

It is suggested that the SAEP be applied as a strategy to provide comprehensive and individualized care with the intention of informing patients and family members and helping them understand the whole process that will be performed. This includes reassuring them about the risks to which the patient may be exposed. As such, pre and post-operative visits are recommended, in order to qualify the systematization. For this, guidance, physical and emotional preparation, evaluation and a referral to the SC are also included in order to reduce risks and promote a more effective recovery, taking into account the dependence and/or vulnerability of each person[3,4].

Patients' uncertainty is unrelated to the complexity of the surgery, and is directly related to miscommunication regarding surgical procedures, anesthesia and postoperative care. Educating patients and family members is part of nurses' responsibilities in the perioperative period and should continue into the preoperative period, so that patients feel calm and secure. With this in mind, two care-giving tools are essential — communication and interaction with the patient — leading to more specific care, according to the needs and expectations of the surgical patient[4].

During the theoretical and practical activities in the SC, there were concerns and questions regarding the care provided by nurse practitioners. Thus, the guiding question of the present research was: what do nursing professionals know about nursing care when anesthesia is being applied during surgery?

In an attempt to guide and explore possibilities that could answer this question, we searched scientific literature and performed field research in order to find information on the knowledge of nursing professionals with regard to the nursing care performed when anesthesia is applied during surgery and when the patient is in post-anesthetic recovery (PAR).

OBJECTIVE

To verify nurses' knowledge about nursing care when anesthesia is applied during surgery in a public hospital in the state of Santa Catarina.

METHOD

The present study was performed at the SC of a public hospital in the western region of the state of Santa Catarina. The protagonists of the study were the nurses involved in application of anesthesia during surgery at the hospital, and who agreed to participate in the project. Seven higher-level nursing professionals participated: a nurse coordinator, two nursing assistants who work in the PAR room, and four nursing assistants in the SC, two of whom work at night.

After approval by the Research Ethics Committee of the Universidade Federal da Fronteira Sul, by means of Report nº 785613 and the authorization of the host institution, a free and informed consent form was prepared, which was then given to the participants for them to sign. The nurses were invited to take part in the study spontaneously. Initial contact was made with the professionals of the unit and two to three meetings were established and scheduled. Each meeting lasted an average of 20 to 30 minutes.

At first, the interviews were performed with semi-structured script. They were then recorded and transcribed in full. In the second part of the research, observations of records in the form of logbook were performed. This occurred between the second fortnight of September 2014 and October of the same year. After the data collection steps were complete, the material for data analysis began and was carried out based on an examination of content, proposed by Bardin. In order to make it possible to identify the participants' responses while maintaining their confidentiality, codenames based on scales (Ramsey, Richmond, Jouvet, Steward, Mallampatti, Cromack and Lehane) were applied to the surgical patients.

RESULTS

After an analysis and codification of the data using interviews and observations at the institution, two categories were obtained, which were organized and highlighted according to Charts 1 and 2.

The first chart presents questions referring to the knowledge of the unit nurses about nursing care during the application of anesthesia in surgery, and considers that assistance be offered in a humanized and caring way. In this regard, two more questions arise: what constitutes care that goes beyond technical assistance? Is it possible to carry out humanized, specialized and individualized assistance based on theories and considering technical and scientific knowledge?

Chart 2 presents the questions that permeate care giving and how nurses show it when a patient is receiving anesthesia.

DISCUSSION

Under the influence of Florence Nightingale, nursing began its journey towards the use of practices based on scientific

Chart 1. Data coding for the first category of analysis.

First category of analysis: knowledge
Knowledge in the course of care: a possible advancement
Research question: What knowledge do nursing professionals have with regard to nursing care when anesthesia is being applied during surgert?
Nurse Ramsey: "The patient is initially sedated, then intubated, and shortly after extubated and referred to the recovery room."
Nurse Richmond: "In the beginning, intubation occurs, then sedation, and in the end, we wake up the patient and extubate him"
Nurse Steward: "This process can be divided into phases, the first is called induction, then maintenance, and recovery."

Chart 2. Data coding for the second category of analysis.

Second category of analysis: care
The care unveiled in the assistance provided: interweaving powers and possibilities
Research Question: What is the knowledge of nursing professionals about nursing care at the anesthetic-surgical moment?
Nurse Cromack: "In anesthetic recovery, you receive the patient and interview him or her if possible. If not, you read the notes and the right thing to do is to prescribe a care plan, but this does not occur."
Nurse Steward: "Providing comfort to the client, monitoring, vital signs, oxygenation, administering medications as prescribed."
Nurse Lehane: "When possible, holistic theory is used as well as the nursing process".
Nurse Mallampatti: "Watching the patient and passing tranquility, confirming fasting and allergies of the patient, taking care of exposure of the patient's body. To maintain a regular temperature, performing a safe surgery checklist, using the appropriate equipment as assessed by the patient."
Nurse Richmond: "(...) when the patient arrives in the recovery room, at the first moment, regardless of the type of surgery or anesthesia that they had, oxygen must be installed for them, mainly to prevent hypoxia...". The patient comes in half asleep, so sometimes they end up forgetting to breathe, so it is important to put on oxygen... Monitor, control vital signs, prevent hypothermia (by warming the patient). Watch out for nausea and vomiting, and be aware if the patient stops breathing. And monitoring continuously the vital signs... Patient admission form; at first we fill in the patient's data, then there's a checklist... After that there is a scale to check the vital signs... I do the Aldrete scale the moment they arrive and when I see that they are well recovered, this document is attached to the medical record."

evidence and knowledge, and gradually abandoned the idea of a kind, intuitive activity and/or life experience. In this regard, several concepts, theories and models that are specific to nursing sciences have been developed in order to provide systematized assistance. This allows for care provided to the patient when he or she is receiving anesthesia to be qualified in a holistic way.

It has been observed recently that nursing work developed in the SC and focused on the application of anesthesia during surgery consists of providing necessary materials, equipment and human resources. This may distance nurses from the idea of care that is directed to the needs of patients and their well-being in a comprehensive way, thus preserving nurses' integrity, according to the Levine theory.

When questioned about the anesthetic process and its stages, the nurses describe how the steps occur, but they do not mention nursing care for the patient.

> "... The patient is initially sedated, then intubated, and shortly after extubated and referred to the recovery room." (Nurse Ramsey)

> "... In the beginning, intubation occurs, then sedation, and in the end, we wake up the patient and extubate him ..." (Nurse Richmond)

> "... This process can be divided into phases, the first is called induction, then maintenance, and recovery ..." (Nurse Steward)

There is a relevant and outstanding concern regarding the technical aspects of the assistance. It is possible to perform routine and systematic activities in the patient care process when the patient is receiving anesthesia. This routine seems to consume the nurses, with regard to both workload and the deficit of human resources. It is observed that the actions of these nursing professionals is often still authoritarian, concerned with following rules and routines, with formal and objective aspects. This, despite the fact that it is known that the bond between nurses and patients in care giving seeks to contemplate the real needs of the patient and to plan quality, humanized and individualized nursing care. It is noteworthy that some nursing professionals attend to the needs that arise as a result of this dynamic and seek to associate technical-scientific knowledge with nursing care.

The preoperative period is defined as an interactive period that aims at detecting patients' current physical and psychological needs, which then aids in the planning of care. Such assistance requires knowledge with regard to the probable emotional or physiological reactions that the patient may present in the face of anesthesia and surgery. Therefore, the nurses will achieve the goals outlined in the care plan, promoting integrity, and bio-psychosocial and spiritual fulfillment[5].

Preoperative guidance requires that the responsible nurse take frequent actions, which then become part of the professional practice. Through the guidance, the nursing professional can welcome the patient and their family, establishing bonds that go beyond the guidance itself, acting as a health educator.

With regard to nursing care provided in the PAR, nurses can use risk management protocols that correspond to good care practice instructions, in order to prevent a certain risk or adverse event, which ensures greater patient safety in the PAR room. In this process, the importance of looking at the patient as a human being in need of care is emphasized, considering that the care process is not only about managing and applying technical processes, norms and routines, but also about providing a humanized and welcoming approach to understand the human being in all its dimensions.

> "... In anesthetic recovery, you receive the patient and interview him or her if possible. If not, you read the notes and the right thing to do is to prescribe a care plan, but this does not occur..." (Nurse Cromack)

It is incumbent upon nurses to adopt guidelines that focus on the safety and quality in the PAR in addition to the prevention of adverse events, in accordance with patient safety policies. Following this logic, the SAEP is an important tool for clinical reasoning because it helps the nurses understand the patients' needs while he or she is receiving anesthesia. When the patient is in a highly complex environment and with restricted access, he or she needs specific and qualified care from the team of surgical professionals[1].

It is also worth noting that the use of SAEP as a specific scientific nursing methods provides that care is managed and improved in an organized, safe, dynamic and competent manner. It also gives scientific weight to the

profession of nursing and assists its in its growth, implying the joint nature of action and knowledge and the development of critical thinking. In addition, it is a tool that promotes problem solving and decision-making, improving professional recognition, which often serves as a stimulus to workers[6].

These changes may be closer to a more organized nursing practice, making it possible to implement SAEP as an important nursing work tool[3].

Nurses' participation in educational programs, and in the evaluation and the control of pain is essential, because they spend the most amount of time with the patient. Thus, nurses should use this contact to identify the demands of changes in analgesia methods, to provide adjustments when necessary, and to educate/advise patients and their families about pain, since it is one of the main undesirable effects in the postoperative period. From the patient's point of view, this is an important perspective in controlling the quality of care provided in the PAR room. When pain occurs, in addition to pharmacological methods, the nurse must implement therapies that relieve the pain, such as applying cold or heat, performing massages, providing cushions, and changing the patients' position. Furthermore, the nurse must communicate effectively, strengthening the nursing-patient bond and providing individualized care that improves the quality of life of patients with pain[7-9].

During his or her period in the PAR, it is known that the patient is exposed to clinical risks, such as respiratory depression, cardiovascular instability, the inability to walk, the lowering of his or her consciousness level, nausea and vomiting, hypothermia, bleeding, urinary retention and medication errors. It is up to the nursing professional to manage and minimize the incidence of these risks.

SAEP aims to use a work methodology that is separate from the theoretical framework adopted, and which requires the nurse to get to know the patient as an individual. They are to use their knowledge and skills, as well as guidance and training from the nursing team to implement systematized actions. Therefore, nursing articulates and directs all the processes that result in care and, in this sense, it is believed that the knowledge of this process is a possible advancement.

Routine and daily life, both of which were quoted as limiting advancements, can also be spaces of creativity, since in routine we discover ways to escape norms and conventions. It is important to emphasize that highlighting difficulties and repeating what we already know does not allow us to develop other ways of caring and approaching care giving. As such, we must think of possible strategies in order to reinvent the art of caring, which can be through touch, affection, and respect for others.

In this sense, it is expected that nurses and their team develop specific skills to care for this individual in a humanized and welcoming way. This requires that the nurse be sensitive enough to assist the surgical patient in all aspects. Some professionals even cite the nursing process, but for some reason they do not use it routinely. The SAEP, which is an excellent tool, also shows other care methods that help in the qualification of care. It cites nursing care methodology and the nursing process[9].

> "When possible, holistic theory is used as well as the nursing process..." (Nurse Lehane)

Care is not considered to be limited in its stages, even when guided by the nursing process, since it is a constant back and forth within the relationship established between the nurse and the patient, especially in the SC, as it is an extremely complex unit. This back and forth movement is attributed not only to the patient and his or her condition, but also to the sophistication of advanced equipment and technologies, the high volume of information that is transmitted, the nature of communication, and the coordination of the team.

These aspects, associated with fatigue, stress, production pressures and heavy workloads, cause the SC to become a vulnerable place for adverse events to occur. Surgical adverse events may occur due to poor communication among the team, poor surgical technique of the surgeon and staff members, and malfunctions or improper use of equipment. They are further aggravated by resource and organizational problems. In the midst of all this, there is the nurse, who must provide and guarantee a qualified, safe, humanized and welcoming nursing care. To do so, the use of the nursing process is an extremely important instrument, as it allows for the objectives outlined to be met.

Nurses' commitment to offer surgical patients a differentiated nursing care is sought. The objective of this form of care is to prevent complications from arising when anesthesia is applied during surgery. The following can be demonstrated by the responses of the participants, who emphasize the importance of watching the patient, transmitting tranquility and providing comfort and care when the patient's body is exposed:

"Providing comfort to the client ..." (Nurse Steward)

"... To assist the patient, to transmit tranquility [...] to take care of the patient when his or her body is exposed, to use appropriate equipment according to the patient's evaluation. To maintain a regular temperature, to perform a safe surgery checklist ... "(Nurse Mallampatti).

The preoperative nursing visit is another factor that may help and be beneficial. It is considered to be an effective tool with potential for when the anesthesia is applied during surgery. It may be useful in promoting individualized care, obtaining data on the personality and physical and emotional characteristics of the patient, as well as assisting in post-surgical recovery.

The preoperative visit can be conducted in such a way as to minimize tension, fear and anxiety, and thus making it very beneficial to the patient. It aims to protect all parties involved in the care process: providing well-being to the patient, promoting care visibility to the nursing professional, and offering assistance to care planning in a continuous and individualized manner.

In this regard, after the publication of the National Patient Safety Program (PNSP) by the Ministry of Health (MS), which sought to prevent the occurrence of adverse events in health services, preoperative visits became more prominent and relevant in surgical units. However, the presence of obstacles in the execution of this stage are still observed in daily practices[10].

A study[9] showed the importance of nursing with respect to the care provided in anesthetic recovery rooms (ARR), as it aims to assist, monitor, prevent complications, ensure safety and contribute as much as possible the patient's well-being. The same authors consider the immediate postoperative period in the PAR to be critical, since the patient undergoes a surgical procedure and receives anesthetic medications. As such he or she requires constant surveillance from the nursing team. It is essential to provide comprehensive care to patients and always register it in the medical record. Care should be given appropriately, preventing the occurrence of complications and/or adverse events. These aspects can be observed in the participants' responses:

"... Install oxygen primarily to prevent hypoxia ... monitor, control vital signs, prevent hypothermia (by warming up the patient). Watch out for nausea and vomiting, and be aware if the patient stops breathing... I do the Aldrete scale." (Nurse Richmond)

There is a great need for nursing professionals who seek further knowledge after completing their professional training, so that they are up to date. This supports the quality of their practice and patient safety. Nurses daily seek ways to confront the operational barriers of the profession, in an attempt to provide qualified care. It is necessary to develop actions starting from nurse training and from academic life, planting the seed of care that touches, cares, heals and lives.

FINAL CONSIDERATIONS

This study approached necessary nurse competencies, and described nurses' daily activities into four spheres (management, research, teaching and care). Thus, it was demonstrated that there are still gaps on the subject, which allowed for the evaluation of the knowledge of nursing professionals that are involved in the care process in the SC and in the PAR. This was evaluated mainly with regard to the moment when anesthesia is applied during surgery, especially the anesthesia and knowledge about the nursing care provided to the anesthetized patient.

It is important that nurses follow good practices to ensure good results in order to provide a humanized, welcoming and high quality care, with the attention focused on the patient as a whole and not only on the disease or a specific part of their body.

Choosing to be a health professional requires technical skills in order to utilize relevant equipment and procedures, scientific knowledge, the ability to dialogue, perceive, experience and see the patient as a whole. Although many hospital institutions do not yet fully adopt this process of caring and systematizing, SAEP is seen as a method to articulate and integrate nursing care when anesthesia is being applied, as well as in the continuation of this care.

We conclude by pointing out that the moment when anesthesia is being applied is unique for the patient, who experiences the procedure, and for their family. The research described and presented here allowed for an exchange between the knowledge of nurses and nursing care, in order to promote various reflections on the professional life of those who work in perioperative nursing.

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