## NURSING PRACTICE OF CARE TO PATIENTS UNDERGOING ELECTIVE SURGERY IN THE IMMEDIATE PREOPERATIVE PERIOD

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#### ABSTRACT

Research that aimed to analyze the care of nurses to patients, in the daily professional practice, provided in the preoperative period for patients undergoing elective surgery. It is a descriptive research with a qualitative approach that involved 15 nurses from Surgical Units and two nurses from the Surgical Centre of a hospital in the southern region of Brazil. Data was collected in semi-structured interviews conducted from April to July 2011. Data was analyzed using the Collective Subject Discourse (CSD) technique. The information obtained generated three CDS focused on the following ideas: administrative care, instruction in the preoperative period and surgical care in the immediate preoperative period. The results showed that caring consists mostly of giving instructions to the patient in the preoperative period. It is concluded that the care was directed to the physical aspects to the detriment of the psychological, in disagreement with the assistance methodology adopted in the hospital, supported by the Theory of Basic Human Needs.

Descriptors: Preoperative care. Perioperative nursing. Nursing care.

#### **RESUMO**

A pesquisa objetivou analisar os cuidados dos enfermeiros com os pacientes, no cotidiano da prática profissional, no período préoperatório imediato de cirurgia eletiva. Trata-se de uma pesquisa descritiva com abordagem qualitativa, em que participaram
15 enfermeiros das unidades cirúrgicas e dois do centro cirúrgico de um hospital da Região Sul do Brasil. Os dados foram
coletados no período de abril a julho de 2011, por meio de entrevista semiestruturada. Para análise dos dados, utilizou-se o
Discurso do Sujeito Coletivo (DSC). As informações deram origem a três DSCs com as ideias centrais: cuidados administrativos, orientação no pré-operatório e cuidados cirúrgicos no pré-operatório imediato. Os resultados mostram que grande parte
dos cuidados se refere à orientação do paciente no pré-operatório. Conclui-se que os cuidados foram direcionados aos aspectos
físicos em detrimento do psicológico, em discordância com a metodologia assistencial adotada no hospital, sustentada pela
Teoria das Necessidades Humanas Básicas.

**Descritores:** Assistência perioperatória. Enfermagem perioperatória. Cuidados de enfermagem. **Título:** Prática do enfermeiro no cuidado ao paciente no pré-operatório imediato de cirurgia eletiva.

#### RESUMEN

Investigación que examinó los cuidados de enfermeros a pacientes, en la práctica profesional cotidiana, en período preoperatorio inmediato de cirugía electiva. Se trata de una investigación descriptiva cualitativa, con la participación de 15 enfermeros de Unidades Quirúrgicas y dos del Centro Quirúrgico de un hospital de la región sur de Brasil. La recolección de datos ocurrió desde abril a julio de 2011 por medio de entrevista semiestructurada. Para el análisis de estos se utilizó el Discurso del Sujeto Colectivo (DSC). Las informaciones originaron tres DSC con las ideas centrales: cuidados administrativos, orientación preoperatoria y cuidados quirúrgicos en el preinmediato. Los resultados retratan que gran parte de los cuidados se refiere a la orientación del paciente en el preoperatorio. Se concluye que la atención se ha dirigido a los aspectos físicos en detrimento del psicológico, en desacuerdo con la metodología de la asistencia aprobada en el hospital, apoyada por la Teoría de las Necesidades Humanas Básicas.

**Descriptores:** Atención perioperativa. Enfermería perioperatoria. Atención de enfermería. **Título:** Práctica del enfermero en el cuidado al paciente en el preoperatorio inmediato de cirugía electiva.

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#### INTRODUCTION

A surgery is elective when the time estimated for the operation suits patient's convenience, i.e., it can be performed in a predetermined date (1).

The preoperative period for elective surgery starts when the patient decides to undergo the surgery and ends with their transfer to the operating table (2).

During this period, the care given to patients should be planned, on an individual basis and based on scientific evidence, according to the type of surgery to be performed and the routine implemented in the institution, and in compliance with the time available between admission and surgery (3).

Regarding patient care in the preoperative period, the nursing staff is responsible for preparing and developing care, as follows: guidance, physical and emotional preparation and evaluation, in order to increase surgical risk, promote recovery and prevent postoperative complications, since these are usually associated with inadequate preoperative preparation. (8).

Therefore, the search for quality of inpatient care in health institutions is the responsibility of the nurse and has been the object of studies aimed at the reduction of damage to patients (4).

One of the strategies considered in this search is to understand how health professionals are developing patient care in their daily practice. Therefore, the question that guided this study was "which is the care provided by nurses to patients in the immediate preoperative period of elective surgeries?" The purpose of the study was to analyze the care provided by nurses in their daily professional practice in the immediate preoperative period to patients undergoing elective surgery.

## **METHODOLOGY**

A descriptive qualitative approach with 15 nurses of two surgical units and two nurses of the surgical ward of a public hospital in Santa Catarina, with approximately 270 beds. This hospital is a center of excellence for cancer services and major surgeries performed exclusively under Brazil's Unified Health System (SUS).

The project was approved by the Ethics Committee on Human Research of Universidade Federal de Santa Catarina (Protocol No 1009/11), following the recommendations of Resolution 196/96 of the National Health Council <sup>(5)</sup>. The participants were informed on the purposes of the study and on data collection procedures.

The inclusion criteria adopted were: be a nurse of the institution, a minimum 6 months of experience in care to patients undergoing surgery, authorize the use of tape recorder during data collection and allow disclosure.

Data were collected from April to July 2011, through semi-structured individual interviews, after signing of the Consent Form. The participants were asked to talk about their care practices to patients in the preoperative period of elective surgery. The interviews were recorded on a digital audio recorder, and the nurses were identified by letter "N" followed by the license numbers at the Board of Nursing.

Three of the four methodological approaches of the Collective Subject Discourse (CSD) were used in the treatment: Key Concepts (KC), which are excerpts of the individual discourse selected by the researcher and that reveal the core of the discourse; the Key Ideas (KI) are names or linguistic expressions that describe and name, as accurately and concisely as possible, the meaning(s) of the homogeneous set of KCs, and the Collective Subject Discourse (CSD), which corresponds to a synthetic discourse, composed of excerpts of individual discourses, and with similar meaning, always using the first person singular pronoun. Therefore, the CSD is composed of KEs that have the same KI<sup>(6)</sup>. Preoperative care practices were extracted from the CSDs.

#### **RESULTS**

Regarding the characteristics of the 17 participants, only one is male; age range is 25-59 years; the period of time they have been working in nursing ranged from nine months to 31 years, and the period of time in surgical wards ranged between eight months and 29 years.

The reports gave origin to three CSDs represented by CSD1, CSD2 and CSDC3 for the ICs: administrative care, preoperative guidance and surgical preparation in the immediate preoperative period, respectively. CSD 1 contemplates the individual discourses of seven participants; CSD 2 contains the statements from nine participants and CSD 3, from eight participants.

#### IC: Administrative care

#### CSD<sub>1</sub>

Care in the preoperative period begins upon the admission of the patient, and in the immediate preoperative period, on the day before surgery when the preoperative mapping is available, at the end of the afternoon. Based on information of which surgeries will be performed on the subsequent day and their schedules, forms other than the medical records with all the necessary tests for the patient's surgery are filled. It is necessary to check whether there is a record of anthropometric measures (weight and height), of vital signs and the signing of the consent form. At admission, which is sometimes the day before or even on the day of surgery, the nursing process is performed and the patient is informed on the routines of the unit. E2, E4, E5, E10, E12, E13, E14).

## IC: preoperative guidance

#### CSD<sub>2</sub>

On the day before surgery the patient is instructed on the time of the surgery and told to take a bath in the morning or before surgery, not to wash hair, to apply antiseptic solution to the surgical site and wear the hospital gown open in the back. The patient is also told to remove dental prosthesis, nail polish, jewels, piercing, contact lenses, do breathing exercises, fasting at midnight, not to drink water and discontinue use of heparin. Men are told to shave. It is important to answer the many questions posed by patients. These concern the surgery. Patients want to know if they can have a family member in the surgical ward. (E1, E3, E5, E8, E10, E11, E13, E15, E17).

# IC: Surgical care in the immediate preoperative period.

#### CSD3

On the day of the surgery the surgical site is cleaned. Bladder should be emptied one hour before surgery and hair removal two hours before surgery; the use of razor blades is not recommended, and patients are advised to use surgical clippers right before the surgery, if possible. We check whether the informed consent form was signed. If not, the patient is asked to sign it. The patient is also checked for vital signs, fasting and need for pre-anesthetic evaluation in the unit. Finally, patient's name, time of surgery and name of surgical practice are checked. (E1, E2, E6, E7, E9, E11, E14, E17).

#### **DISCUSSION**

In these discourses, nurses show greater concern with physical dimensions and organizational aspects (bureaucratic and administrative aspects) to the detriment psychological aspects, in patient care in the preoperative period. This is a remarkable situation for two main reasons: it is not consistent with the care methodology used in the institution, whose approach is based on Wanda Aguiar Horta's theory of Basic Human Needs, which considers the biological, psychological, social and spiritual characteristics of the individual, and failure to take into account literature reports on the anxiety of patients who will undergo surgery, the fear of the unknown, of failure in the surgical procedure and of not waking up from the anesthesia<sup>(7)</sup>.

CSD 1 concerns the administrative routines in surgical wards that, if not observed, may interfere with patient care in the preoperative period. The preoperative mapping mentioned in the discourse is a document written in the operating room containing all surgeries scheduled for a given day <sup>(8)</sup>. Nurses in surgical wards use this instrument to organize activities related primarily to care in the immediate preoperative period.

The nursing process cited by the participants is a guide that helps collecting and organizing data relevant in the identification of patient health needs and problems. Data is collected through interviews, observation and physical examination, including information related to psychospiritual, psychosocial and psychobiological needs<sup>(9)</sup>. However, as previously mentioned, the discourses include only the psychobiological needs of patients.

CSD 2 depicts the care procedures related to instruction or guidance to patients in the preoperative period. One of the guidelines concerns fasting. Randomized study with patients undergoing cholecystectomy compared the traditional fasting at midnight with the consumption of a carbohydrate drink (CHO) two hours before surgery. In the referred study, patients had lower incidence of gastro-

intestinal complications and shorter hospital stay after surgery compared to the control group (10).

The shortening of preoperative fasting by offering carbohydrates to patients is seen as one beneficial factor which reduces the organic response, surgical stress and improves the well-being of patients. This practice proved to be not only safe, but also essential for faster recovery from surgery. Thus, the decrease in the preoperative fasting period should be implemented.<sup>(11)</sup>.

The instruction to patients regarding the removal of finger nail polish, jewels, piercing and dental prostheses referred by participants is consistent with the pertinent literature. The indication to remove finger nail polish is justified by the need to visualize venous reflow from the fingertips. (12). Besides, during the intraoperative period, the patient uses the pulse oximeter to record oxygen saturation and heart rate. Some authors report aspects that modify or limit the efficiency of the use of the oximeter, causing incorrect readings: anemia, peripheral vasoconstriction, nail polish color, fluorescent light and patient motion (13).

The removal of dental prostheses mentioned in the discourse is necessary to prevent them to slide into the lower airways during anesthetic induction, and also because of risk of loss during surgery (3).

Rings and other jewelry should be removed due to the risk of garroting fingers and electric shock in the intraoperative period; however, if the patient refuses to remove rings or the wedding ring, careful hand washing should be performed to prevent infection risk (3,12). Although there is no indication in the literature, it is recommended to isolate the jewel or ring with micropore to avoid burning in the surgical site caused by the energy propagated by electrocauterization.

Regarding piercings, the patient should be advised to remove them because of several complications that can occur during surgery, including burn caused by the use of scalpel, lesions in tissues and nerves during mobilization in the operating table, and if the piercing is located in the mouth cavity, it can be aspirated during endotracheal intubation in the administration of anesthesia, and, consequently, cause laryngeal spasm and hypoxia. (14).

Bathing is considered a step in the surgical preparation of skin <sup>(15)</sup>. According to CSD 2, the patients are instructed to take a bath in the morning or right before surgery and apply antiseptic solution.

Some studies recommend the use of antiseptic soap (chlorhexidine gluconate, povidone-iodine or triclocarban) in the preoperative period), at least the night before elective surgery to avoid infection in the surgical site<sup>(16)</sup>. However, in a prospective study with a sample of 1,400 randomized patients comparing the patient bath with chlorhexidine gluconate in the preoperative period to the group of patients who did not use this product, there was no significant difference in infection rates between both groups <sup>(17)</sup>.

As for the use of antiseptic products, the use of chlorhexidine 2% (antiseptic solution) is recommended in the bath prior to elective surgeries, regardless of their size, In major surgical procedures, as well as in those that involve implants, patients are advised to bath two hours before surgery, and in other operations the use of neutral soap is recommended according to the schedule of the institution (18).

In the literature, the reason for the recommendation of breathing exercises by the professionals is that prolonged surgical and anesthetic periods can cause deleterious effects on the respiratory system, such as gas exchange and lung mechanics, which increases the risk of pulmonary complications. Therefore, in the preoperative period the patient should be advised to perform the following techniques: airway clearance, early ambulation and physical therapy (19).

On CSD 3, care to patients immediately before surgery such as: hair removal, bladder emptying, vital signs and administration of pre-anesthetic medication.

Concerning hair removal, the amount of hair, the site of incision, the type of procedure and the surgeon's preference, and if necessary, it should be performed right before the surgery. Extensive trichotomies should be avoided. It is recommended the use of electrical surgical clippers (18)..

Hair removal should occur only in very special situations and only in the surgical sites. The risk of infection in the surgical site increases if associated with hair removal in the surgical site because the microscopic cuts in the skin provide foci for bacterial multiplication (3-17).

However, a randomized clinical study comparing infection in the surgical site with or without hair removal, with different methods of hair removal and at different moments before surgery, showed no differences in intensity of infection in the surgical site between patients who had hair removal before surgery and those who did not. Also, there was no difference in intensity of infection l in the surgical site between patients who had their hair removed one day before surgery and those who had their hair removed on the day of surgery (20).

Concerning vital signs, in the preoperative period, medication and stress caused by surgery may promote physiological changes such as increase in blood pressure and heart rate. In case of significant physiological changes, surgery may be delayed and the patient treated, or else, surgery may be suspended until the situation is stabilized (3).

Other nursing care mentioned by the participants concerned the administration of preanesthetics. Pre-anesthetic medications are drugs prescribed are drugs prescribed with the aim of providing greater patient comfort, facilitating anesthetic procedures, reducing anxiety, facilitating the induction of anesthesia and decrease pharyngeal secretions. They are usually administered one to two hours before surgery. The most commonly used pre-anesthetic medications are anticholinergic agents, tranquilizers and hypnoanalgesics. <sup>(3)</sup>.

## CONCLUSION

Since the care contemplated in the Collective Subject Discourses is consistent with the scientific literature, it is inferred that the practice of the nurses participating in the study has scientific basis.

The care practices reported concern guidance to patients in the preoperative period, with focus on physical aspects to the detriment of psychological aspects. The non-psychological approach reflects the need for nurses to rethink their professional practices, since it is in disagreement with the assistance methodology used in the hospital where this study was conducted, which is supported by the Theory of Basic Human Needs.

Although participants have demonstrated knowledge about professional healthcare, there is lack of concern with other important care to patient such as assess patient's anxiety about the surgery, investigate the previous surgical history, identify allergies, provide guidance on gastrointestinal preparation, where indicated, provide guidance to family members, among others.

Combined with other health care contemplated in the literature, these findings may support the elaboration of an instrument of nursing interventions to patients undergoing surgery, especially in the preoperative period.

One limitation of this study is the noninclusion of nursing assistants (professionals of mid-level education) who could certainly provide information on nursing care in the immediate preoperative period of elective surgeries.

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