

ACTIONS OF SURGERY CENTER NURSES BEFORE THE SYSTEMATIZATION OF PERIOPERATIVE NURSING CARE

Atitudes dos enfermeiros de centro cirúrgico diante da sistematização da assistência de enfermagem perioperatória

Actitudes de los enfermeros del centro quirúrgico en la sistematización de la asistencia de enfermería perioperatoria

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RESUMO: Introdução: A Sistematização da Assistência de Enfermagem Perioperatória (SAEP) trata-se de um valioso instrumento para assistência do paciente de forma integralizada, contínua, segura e humanizada pela enfermagem, sendo composta por cinco fases: visita pré-operatória de enfermagem, planejamento, implementação, avaliação e reformulação da assistência a ser planejada. **Objetivo:** Descrever as atitudes dos enfermeiros relacionadas à SAEP em um centro cirúrgico (CC) de um hospital no interior paulista. **Métodos:** Estudo transversal, descritivo. **Resultados:** Evidenciou-se pouco conhecimento e contato dos enfermeiros com a SAEP; as atitudes dos enfermeiros sobre esta obteve escore 89,55; a maioria dos adjetivos recebeu escore $\geq 5,5$; quanto maior o tempo trabalhado na instituição, maior o contato com a SAEP. **Conclusão:** É notório que a implementação da SAEP é um desafio para o enfermeiro cirúrgico, mesmo se tratando de uma ferramenta para tornar a assistência de enfermagem individualizada e eficaz, minimizando riscos e complicações pós-operatórias. **Palavras-chave:** Pesquisa em enfermagem. Enfermagem perioperatória. Cuidados de enfermagem. Atitude do pessoal de saúde.

ABSTRACT: Introduction: The Perioperative Nursing Care Systematization (PNCS) is a valuable instrument for patient's care in a full, continuous, safe and humanized manner by the nursing team, which is comprised of five phases: nursing preoperative visit, planning, implementation, evaluation and reformulation of the care to be planned. **Objective:** To describe the nurses' actions regarding PNCS in a surgery center (SC) from a hospital in the countryside of São Paulo. **Methods:** Cross-sectional and descriptive study. **Results:** We observed little knowledge and contact of the nurses with the PNCS; the actions of the nurses regarding it obtained a score of 89.55; most of the adjectives scored ≥ 5.5 ; the higher the time worked in the institution, the higher the contact with the PNCS. **Conclusion:** The implementation of the PNCS is notable and a challenge for surgery nurses, even if it is a tool to make nursing care individualized and effective; therefore, minimizing postoperative risks and complications.

Keywords: Nursing research. Perioperative nursing. Nursing care. Actions of health personnel.

RESUMEN: Introducción: La Sistematización de la Asistencia de Enfermería Perioperatoria (SAEP) se trata de un valioso instrumento para la asistencia del paciente de modo integrado, continuo, seguro y humanizado por el equipo de enfermería, y es compuesta de cinco fases: visita preoperatoria de la enfermería, planeo, implementación, evaluación y reformulación de la asistencia a planificarse. **Objetivo:** Describir las actitudes de los enfermeros relacionadas a la SAEP en un centro quirúrgico (CQ) de un hospital en el interior de São Paulo, Brasil. **Métodos:** Estudio transversal y descriptivo. **Resultados:** Se observaron poco conocimiento y contacto de los enfermeros con la SAEP; las actitudes de los enfermeros sobre la SAEP obtuvieron un escore de 89,55; la mayoría de los adjetivos recibió un escore $\geq 5,5$; y cuanto mayor el tiempo trabajado en la institución, mayor el contacto con la SAEP. **Conclusión:** Es notorio que la implementación de la SAEP es un desafío para el enfermero quirúrgico, aún que se trate de una herramienta para tornar la asistencia de la enfermería individualizada y eficaz, minimizándose los riesgos y las complicaciones posoperatorias. **Palabras clave:** Investigación en enfermería. Enfermería perioperatoria. Atención de enfermería. Actitud del personal de salud.

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INTRODUCTION

The surgery center (SC) is an isolated department of great complexity in the hospital context. Being very dynamic, stressful and hostile, it presents a cold and closed environment that stimulates silence and distance between the multidisciplinary team and the patient by turning care into a mechanical activity¹.

Based on this context, regarding direct care, the nursing enriches and establishes its own knowledge body in its several areas based on a methodology called nursing process (NP). This is a systematic and humanized instrument used for guiding the nursing professional, which is comprised of five stages: nursing history, nursing diagnosis, planning, implementation, and evaluation^{2,3}.

The NP operation takes place when the Nursing Care Systematization (NCS) is implemented, which makes the working process more effective, besides being the structure that guides the nursing care. In the perioperative context, the NP is called Perioperative Nursing Care Systematization (PNCS)⁴.

Thus, the PNCS is a valuable tool so that the patient is cared for in a full, continuous, safe and humanized manner by the nursing personnel. It may also be understood as a methodological instrument that systematizes practice and provides perception, interpretation, and anticipation of individual answers to health changes. It also promotes the proper, planned and grounded intervention of problems identified in the patient during the perioperative period, as well as the evaluation of results⁵.

It is composed of five stages, as follows:

- nursing preoperative visit;
- perioperative care planning;
- care implementation;
- care evaluation (through the nursing postoperative visit); and
- reformulation of the care to be planned (according to results and solution of undesired situations or adverse events)¹.

The pre- and postoperative visits are tools that qualify the care provided to the subjects and their families in the perioperative period⁶.

Most professionals believe that PNCS is an essential practice for a qualified service for patients, but they also face some difficulties to implement it^{7,8}.

Studies present^{9,10} the following items as difficulties for the PNCS implementation:

- lack of skills of the team to perform the nursing process;
- lack of mastery in the physical exam and in team interaction;
- lack of a protocol in the hospital that determines its performance;
- organizational structure;
- concomitant administrative and care functions;
- time of hospitalization;
- lack of human resources;
- lack of specific form for visitation;
- excessive routines in the units;
- lack of planning;
- non-reliable surgical map and lack of priorities in the preoperative visitation.

These difficulties are worsened when the management of health units does not understand the importance of the role of the nurse in the surgery patient's care during the perioperative period, by deviating his/her care function to a managerial role. The literature also points that lack of time and overload of activities are the main challenges for the implementation of the PNCS^{6,9,10}.

Based on the consulted literature⁵⁻⁸, the quality of the nursing care provided in the perioperative period is believed to directly interfere in the results of the surgical procedure. Therefore, analyzing studies of this nature, we seek to understand the nurse's work in this unit by highlighting its importance and involvement in the process of improving the quality of the service.

Thus, the actions of nurses in the SC play a significant role in the performance of concepts, considering they contribute to impel the performance of correlated behaviors¹¹. Professionals whose actions are favorable to the NP have less difficulties to engage in the changes required to implant and implement the PNCS, unlike those whose actions are not favorable and who will probably have more difficulties of adjustment¹².

Studies point out^{12,13} to some factors that may contribute with different positions regarding the use of NP by highlighting: the experience in the nursing clinical practice; formal education; and expectation of professionals about themselves.

Another study¹⁴ that assessed the actions of nurses on the NP using the cross-cultural translation and adjustment of

the instrument called Positions on Nursing Diagnosis¹⁵ must be highlighted, since it was originally developed to analyze the actions of nurses before the concept of nursing diagnosis, which is one of the NP stages. In this study¹⁵, the nursing diagnosis concept (ND) was replaced by the NP concept and this instrument became the positions on the nursing process (PNP).

The use of PNCS will help patients and their families to understand and prepare themselves for the anesthetic-surgical treatment by reducing the risks of the use of materials and equipment required for the procedures. It will also predict, provide, and control material and human resources by reducing the risks inherent to SC environments and to the postoperative recovery room⁵. Therefore, the investigation of the factors that may interfere in the implementation and maintenance of the PNCS in the nurse's clinical practice becomes imperative — whether they are related to the institution environment or to the nursing professionals. Such a fact leads to questions about the actions of nurses regarding the relevance of the PNCS, as well as difficulties that they face to insert them in their daily activities.

The aim of this study is to describe the actions of nurses regarding the PNCS in the unit of the SC at a public teaching hospital in the countryside of the state of São Paulo.

METHODS

This is a descriptive, cross-sectional study developed with nurses from the General SC of a public university hospital in the countryside of São Paulo, whose aim was to characterize the population in their sociodemographic and working profile; to describe the distribution of nurses on the implementation of the PNCS, as well as to analyze associations between actions related to the systematization and researched variables (sex, age, “leadership” position, graduation performance, main activity in the work environment, satisfaction with the work place, satisfaction with the career, knowledge level, contact with PNCS, and graduation period).

The SC presents 16 operation rooms, 4 urgency and emergency rooms, 1 postanesthetic recovery room (with 6 beds), and 1 anesthetic therapy unit.

The sample was comprised by 20 nurses who answered the self-applicable questionnaires in their work place in March 2016.

All nurses working in the SC during the analyzed period were eligible to take part in the study, and three professionals were excluded for not meeting the instrument criteria correctly.

The following parameters were used:

- population characterization: personal and work data;
- level of knowledge on the PNCS: for each question, the participant had to choose one of the four items shown in the Likert-type scale (none, few, moderate or a lot), and the higher the final score, the higher the knowledge of PNCS;
- level of contact with the PNCS: the contact (in the last three years) was estimated according to five items – reading activities on the theme, participation in classes or courses, participation in specific events on PNCS, use in clinical practice and performance of research on the subject (for each item, the answer scale was: none, a little, moderate or a lot, and the higher the score, the more intense the contact with the PNCS);
- nurse's position on the PNCS: we used a self-applicable questionnaire for this item to measure the actions of nurses on the PNCS through the semantic differential to measure them, and respondents had to score how they felt about the PNCS, by attributing 20 pairs of adjectives. Each pair of adjectives was separated by a seven-point scale.

The assessment tools of the parameters regarding knowledge, contact and positions were originally developed for the NP; however, considering that PNCS presents phases adjusted for the SC, they were able to be used in this context.

We performed a descriptive statistical analysis. The possible correlations between the variable “age” and the variables related to PNCS scores were investigated with the Pearson's correlation coefficient.

The correlations between the variable “time of graduation” and the variables related to PNCS scores were evaluated using the Spearman's correlation coefficient, because the variable “period of graduation” did not present normal distribution.

Such coefficients ranged from -1 to 1 and the values closer to -1 indicate a negative or inverse relation between the variables; values close to 1 indicate a positive relation between them; and values close to 0 show absence of correlation.

Regarding the intensity of the correlation between the variables, the literature¹⁶ classifies this coefficient as: poor (0.10 to 0.29), moderate (0.30 to 0.49), and strong (higher or equal to 0.50). For all the analyses, we considered a 5% significance level and used the statistical software Statistical Analysis System (SAS), version 9.4. The Ethics Committee approved the study under protocol number 1.376.228, in which all participants signed the free informed consent form (TCLE).

RESULTS

Of the 20 nurses participating in the study, 95% (n=19) were female, with mean age of 45 years (standard deviation – SD=7.47), varying from 30 to 55 years old. The professionals had been working for 18 years, in the institution, on average, and worked 33 hours a week. Of the total number of nurses, 65% (n=13) mentioned undergoing graduation course (improvement or specialization), 15% (n=3) mentioned undergoing master's degree course, and 10% (n=2) underwent a doctorate's course.

Regarding the positions, 80% (n=16) of the professionals were in the position of assistant nurse of the SC; 10% (n=2), supervision; and 10% (n=2), management. About the shifts, 30% (n=6) worked in the morning, 35% (n=7) in the afternoon, 20% (n=4) in the daytime shift and 15% (n=3) in the night shift.

A total of 85% (n=17) of the professionals worked in the preference unit; 10% (n=9) did not have a favorite department; and 5% (n=1) preferred another department, but they were not able to get a transfer. All the professionals had a working connection only with the study hospital.

Regarding work satisfaction, 55% (n=11) of the professionals were moderately satisfied, 35% (n=7) were totally satisfied, and 10% (n=2) were a little satisfied.

As to the activities conducted in the SC, 30% (n=6) of the professionals mentioned working in care planning, 25% (n=5) in direct care, 15% (n=3) in management activities, 15% (n=3) in care and management activity planning, 10% (n=2) in direct care and care planning, and 5% (n=1) in planning, care, and other activities.

Knowledge of the PNCS and its stages was assessed through a five-item instrument. The instrument score varied from 4 to 20; the higher the score, the higher the knowledge. The total score of this item ranged from 7 to 15, with mean of 10.05, median of 10, and SD=1.99.

Of the total number of nurses, 65% (n=13) answered having moderate knowledge about the PNCS in general. Regarding the PNCS stages, most of them considered having moderate knowledge regarding the: interview/physical exam (75% / 15), nursing diagnosis (70% / 14), nursing prescription (65% / 13), and nursing evolution (70% / 14).

The level of contact with activities related to the PNCS was also assessed through a five-item instrument with scores ranging from 4 to 20; the higher the score, the higher the level of contact with the PNCS. The total score on the level of contact with activities related to PNCS varied from 1 to 11, with mean of 4.6, median of 4.5, and SD=2.66.

According to the evaluated questionnaires:

- 50% (n=10) of the sample considered reading just a little about PNCS;
- 75% (n=15) mentioned minor attendance to classes and courses about PNCS;
- 90% (n=18) mentioned having little or no participation in related events;
- 70% (n=14) mentioned using the PNCS a little or not at all in the clinical part; and
- 55% (n=11) did not perform any kind of research on the theme.

The nurses' actions regarding the PNCS were assessed with the PNP. The score of this instrument varies from 20 to 140; the higher the score, the more favorable the nurse's disposal regarding the PNCS. The total score of the PNP ranged from 53 to 120, with an average of 89.55, a median of 93, and SD=17,58.

Items presenting mean scores ≤ 4.5 were those from the ambiguous/clear and easy/difficult adjectives. Items presenting mean scores ≥ 5.5 were those of non-significant/significant, valuable/non-valuable, negative/positive, fool/intelligent, invalid/valid, significant/insignificant, relevant/irrelevant, compensator/non-compensator, convenient/inconvenient, acceptable/unacceptable, bad/good, unimportant/important adjectives.

Although most adjectives present median scores ≥ 5.5 , some remained neutral: pleasant/unpleasant, strong/weak, comfortable/uncomfortable, non-realistic/realistic, facilitating/difficult and creative/routine.

We made correlations between the variables age, time, knowledge score of the PNCS, contact score with the PNCS

and score in the PNP. No statistical correlations were seen between age and instruments of the PNCS (Table 1).

Table 2 presents correlations between time of work in the unit and the PNCS instruments, with a statistically significant correlation between this variable and the contact score, i.e. the higher the work performed in the institution, the higher the contact with the PNCS.

DISCUSSION

The female gender was prevalent in this research, which is in accordance with an ideology that has been socially constructed in relation to the nursing exercise. There is still a predisposition to relate the profession with a maternal feeling or consider it as a woman’s task, because it involves sensitivity, caress and affection, which are female attributes¹².

An article found ten reasons why professionals seek undergraduate courses: closeness with the theme that they like the most; need for knowledge; requirement of the work market; financial investment return; demand of titles by public service exams; influence of third-parties on the choice of course; line of progress for *stricto sensu*;

personal requirement based on the need experienced in practice; knowing how to work in any area; need of schedule adaptation¹¹.

On the other hand, *stricto sensu* graduation has been indispensable for the progress of science, technology and innovation, which trigger economic and social transformation. Then, the Brazilian nurses transfers their scientific knowledge to the professional practice, thus improving care and teaching in health¹⁷.

The small number of professionals who declare being satisfied with the profession called our attention. Satisfaction to work in the place of preference is a protective factor against the Burnout Syndrome, because the hospital environment is unhealthy, difficult, dangerous and inclined to sickness. The lower the satisfaction with the work place, the higher the probability of developing emotional exhaustion¹⁸.

Herein, the knowledge of PNCS presented by the sample was moderate, as well as of all its stages (interview/physical exam, nursing diagnosis, nursing prescription, and nursing evolution). In the studied hospital, the only stage performed of the PNCS is the preoperative visit.

Most of the nurses mentioned reading a little about the PNCS, with little or no participation in classes or courses on the theme, few or no participation in related events, use of the PNCS in a few or in no moments during clinical work and performance of no kind of related research.

This result is in accordance with another finding¹⁴ about the perception of nurses regarding the meaning of the NCS, which showed a lack of knowledge among nurses for its implementation.

Thus, for a qualified care, professionals need to be skilled, and continuous education is an opportunity for improvement⁵.

In addition, we point out that for the effective implementation of the PNCS, the nurse is required to know about the applicability of nursing diagnoses, as well as their interventions and results together with the patients by using the Nanda-I¹⁹ Taxonomy II, allied to the nursing intervention classification (NIC) and to the nursing outcome classification (NOC)²⁰.

About the mean score of the PNP items, the lowest mean was directed to the pair of easy/difficult adjectives (3.35). The literature suggests analyzing the items with score ≥ 5.5 as strongly favorable; and those with mean score ≤ 4.5 as more unfavorable¹⁵.

Table 1. Correlations between age and the knowledge score of the Perioperative Nursing Care Systematization (PNCS), contact score with the PNCS and score of Positions on the Nursing Process (PNP). Campinas, 2016.

| | Knowledge score | Contact score | PNP Score |
|-----|---------------------|---------------|-----------|
| Age | 0.0097 ^a | 0.4220 | 0.1343 |
| | 0.9676 ^b | 0.0639 | 0.5724 |

^aPearson’s correlation coefficient; ^bp-value.

Table 2. Correlations between working period in the unit and the knowledge score of the Perioperative Nursing Care Systematization (PNCS), contact score with the PNCS and score of Positions on the Nursing Process (PNP). Campinas, 2016.

| | Knowledge score | Contact score | PNP Score |
|--------|----------------------|---------------|-----------|
| Period | -0.1156 ^a | 0.4602 | 0.1188 |
| | 0.6275 ^b | 0.0412 | 0.6178 |

^aSpearman’s rank coefficient; ^bp-value.

CONCLUSION

Herein, the lowest mean score was observed in the item unimportant/important (6.2) classified as strongly favorable (≥ 5.5), like in other papers¹⁴.

Regarding the positive aspects of PNCS, they were indicated by the adjectives: significant, valuable, positive, intelligent, valid, significant, relevant, rewarding, convenient, acceptable, good, and important.

There was correlation only between longer work time in the institution and contact with the PNCS. This outcome may suggest that working in a university hospital provides contact with scientific knowledge, without, however, ensuring its use.

This reality allows us to infer that those nurses who have not used the ND or make use of it without concerning about its accuracy maintain the invisibility of its role as a person who diagnoses¹⁹.

Hence, we also believe that nurses need to dedicate themselves to the performance of the PNCS, considering that the health practice in the SC demands intervention studies so that the existing concepts may be validated in the routine of care, by showing its inconsistencies and possibilities to represent a possible and essential challenge for nurses.

As limitations for the development of this study, we highlight the difficulty found by unit nurses from the mentioned SC to make time to participate in the research, and the lack of theoretical background to discuss the proposed theme.

We observed that the longer the work time the nurse presented in the institution, the broader the contact with the PNCS; however, there are still some weaknesses regarding its implementation.

One of the factors that show low adherence to the use of the PNCS in this study refers to the fact that only one stage is performed during the perioperative period, which may be attributed to the low search for updates on the theme not only by demotivation of the professional, but also by the lack of stimulation from the institution.

We also showed that most nurses who took part in this research refers not reading a lot about the PNCS, which makes its practical applicability harder.

We believe that the minor scientific production on PNCS may be associated with the fact that the professionals are not interested in studying about the subject, as presented in this study.

In conclusion, the PNCS is essential for a qualified care; however, it is not an easy process for nurses and their team, requiring professionals to have initiative and proactivity to overcome the obstacles, considering that the practice in health in the SC requires intervention studies so that the existing concepts may be validated in the daily routine care.

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