

SCIENTIFIC PRODUCTION IN PERIOPERATIVE NURSING FROM 2003 TO 2013

Produção científica da enfermagem de centro cirúrgico de 2003 a 2013

La producción científica de enfermería del centro quirúrgico del 2003 hasta el 2013

Jacqueline Aparecida Rios Campos¹, Andréia Cristina Barbosa Costa², Carina Aparecida Marosti Dessotte³,
Renata Cristina de Campos Pereira Silveira³

ABSTRACT: Objective: To identify the production on operating room nursing in Portuguese. **Method:** Integrative literature review of primary studies indexed in the Lilacs database, in Portuguese, using the descriptor “operating room nursing”, published from 2003 to 2013, using a questionnaire available in the literature, critical evaluation of primary studies included, analysis and descriptive summary of the review results. **Results:** The sample consisted of 47 articles, organized according to their focus, divided into the following categories: patient care and safety (n=14), education (n=10), management and administration (n=10), worker health (n=5), fields of work for nurses (n=4), communication and ethics (n=3) and assistance to family members (n=1). **Conclusions:** The main issues studied were the care and safety of adult patients, the nurse’s role in management and assistance, teaching of the surgical discipline in undergraduate courses and factors that affect the health of Surgical Center teams.

Keywords: Nursing Care. Operating Room Nursing. Nursing Specialties.

RESUMO: Objetivo: Identificar a produção da enfermagem de Centro Cirúrgico em português. **Método:** Revisão integrativa da literatura dos estudos primários indexados na base de dados Lilacs, no idioma português, utilizando o descritor “enfermagem em Centro Cirúrgico”, publicados entre 2003 a 2013, utilizando um instrumento disponível na literatura, avaliação crítica dos estudos primários incluídos, análise e síntese descritiva dos resultados da revisão. **Resultados:** A amostra foi constituída de 47 artigos, divididos nas categorias: assistência e segurança ao paciente (n=14), educação (n=10), gestão e administração (n=10), saúde do trabalhador (n=5), campos de atuação para o enfermeiro (n=4), comunicação e ética (n=3) e assistência aos familiares (n=1). **Conclusão:** As principais temáticas estudadas foram a assistência e segurança do paciente adulto, o papel de gerência e assistência do enfermeiro, o ensino da disciplina cirúrgica na graduação e os fatores que afetam a saúde da equipe de Centro Cirúrgico.

Palavras-chave: Cuidados de Enfermagem. Enfermagem de Centro Cirúrgico. Especialidades de Enfermagem.

RESUMEN: Objetivo: Identificar la producción de enfermería de quirófano en portugués. **Método:** Revisión integradora de la literatura de los estudios primarios indexadas en la base de datos Lilacs, en portugués, utilizando “enfermería de quirófano”, publicado desde 2003 hasta 2013, el uso de una herramienta disponible en la literatura, la evaluación crítica de los estudios primarios incluidos, análisis y resumen descriptivo de los resultados de la revisión. **Resultados:** la muestra estuvo conformada por 47 artículos, organizados de acuerdo a su enfoque, divididos en categorías: Asistencia y seguridad a los pacientes (n=14), educación (n=10), la gestión y administración (n=10), la salud de los trabajadores (n=5), campos de juego para los enfermeros (n=4), la comunicación y la ética (n=3) y asistencia a los miembros de la familia (n=1). **Conclusiones:** Los principales temas estudiados fueron el cuidado y la seguridad de los pacientes adultos, el papel de la gestión y atención de enfermería, disciplina quirúrgica de la docencia en la licenciatura y los factores que afectan la salud del equipo del Centro Quirúrgico.

Palabras clave: Atención de Enfermería. Enfermería de Quirófano. Especialidades de Enfermería.

¹Nurse, graduated from the School of Nursing of Ribeirão Preto, Universidade de São Paulo (EERP/USP). E-mail: jacky.rioscampos@gmail.com

²Nurse, PhD in Sciences in the Basic Program of EERP/USP. E-mail: andreiacbc1@hotmail.com

³Nurse, Doctor Professor of EERP/USP. E-mail: camarosti@usp.br; recris@eerp.usp.br

Avenida dos Bandeirantes, 3900, Campus Universitário - Monte Alegre, CEP: 14040-902, Ribeirão Preto, SP, Brasil.

Received: 27 Jan. 2014 – Approved: 07 Jan. 2015

DOI: 10.5327/Z1414-4425201500020004

INTRODUCTION

The knowledge production activities on nursing have emerged with the beginning of modern nursing, gaining greater emphasis in the 1950s due to the increased formation of researchers, with the implementation of the first Master's and Doctoral courses in the field¹.

This scientific knowledge is necessary to consolidate evidence-based care, allowing full autonomy of the profession. Thus, studies of the many nursing specialty areas are growing, keeping up with the technologies in health.

Among the several research foci of Brazilian Nursing, the theme highlighted was operating room nursing, which comprises one of the most critical periods of patient care. The research on this topic began in the 1930s, reinforcing the national events and conferences².

With the advancements in knowledge on operating room and facing the need to monitor this scientific development to respond with competence in their professional practice, an increased participation of nurses in field events, conducting courses (update, specialization, Master's, and Doctorate), and using these activities as instruments to encourage research became necessary. Thus, the professional nurses in the operating room have been transforming their practice and being recognized by the internal and external communities (nursing staff, doctors, and care receivers) as a leadership, imposing themselves through knowledge, ethical attitude, and commitment to quality care, and they should keep a watchful on eye the scientific and technological innovations of the modern world².

The performance of the operating room nurse includes specific activities that demand great responsibility to ensure the success of surgical procedures, involving management and assistance. Thus, according to the Brazilian Society of Operating Room Nurses, Anesthetic Recovery and Material and Sterilization Center (SOBECC), the team working in the operating room must deal with several aspects, from technical competence, interpersonal relationships, and material resources to the interaction with the patient and the family. Thus, the nursing staff must give patients psychological support on arrival, promote comfort within a safe environment, and ensure the sterilization for all invasive procedures, ensuring quality care³. Therefore, it is necessary that nurses are trained and updated to perform in the operating room.

This study sought to identify the scientific production in operating room nursing in Portuguese indexed in the Latin American and Caribbean Literature on Social and Health Sciences (LILACS) electronic database to know the panorama of publications on the subject, to provide the incorporation of scientific evidence to improve patient care.

METHOD

This is an integrative literature review. Generally, in this type of revision, primary or sample studies are heterogeneous, for the review's guiding question is broad and enables the inclusion of primary articles with different study designs⁴.

According to the method used, an explicit approach to the search strategy in the electronic database, to the evaluation of the quality of primary studies included, and to the descriptive summary of these is required. Therefore, this study chose to follow the following steps⁵: preparation of the review's guiding question ("What are the scientific evidence published in Portuguese related to Operating Room nursing indexed in the LILACS database?"), search of primary studies indexed in the database chosen, extraction of data from the studies included using an instrument available in the literature⁶, critical assessment of the studies included, and descriptive analysis and summary of the review results.

Search of primary studies in the literature

For the search, the controlled descriptor "operating room nursing" was used. We identified 213 citations that have been printed and the title and abstract were read, which was followed by the identification of eligible studies. The electronic database was searched on June 31, 2013.

Inclusion criteria

Primary studies indexed in LILACS database, published in Portuguese, from January 1, 2003 to June 31, 2013, were included. The aim of the review was to identify the knowledge available in Portuguese, considering it is a limitation for nurses to access and use research results in clinical practice in foreign languages⁴.

Exclusion criteria

Master's and doctoral dissertations, as well as secondary studies, were excluded because the researcher cannot complete the assessment stage of the individual characteristics of the primary study from a review synthesis⁴.

RESULTS

We identified 213 references using the controlled descriptor "operating room nursing." Of this total, 166 studies were excluded; of which, 126 were published before December 31, 2002, 16 were published in a foreign language, 11 were dissertations and doctoral theses, 7 were secondary studies, and 6 did not address the research's question. Thus, the final sample included 47 primary studies⁷⁻⁵³, and the content was analyzed in accordance with Chart 1.

The theme categories were prepared by reading the articles. After reading and identification of the issue addressed in the study, they were grouped by similarities in seven thematic categories shown in Table 1, namely education, occupational health, patient care and safety, management and administration, assistance to family, fields of work for nurses, and communication and ethics.

The category with the most articles published was patient care and safety, with 14 articles (30%)⁷⁻²⁰. In the education category, 10 articles were identified (21%)²¹⁻³⁰. In the management and administration category, 10 articles were classified (21%)³¹⁻⁴⁰. The category of fields of work for nurses comprised five articles (11%)⁴¹⁻⁴⁵. For the category fields of action for nurses, four articles (8.5%) were identified⁴⁶⁻⁴⁹. In the communication and ethics theme, three articles (6.4%) were classified⁵⁰⁻⁵². Finally, in the assistance to family category, a single article was classified⁵³.

Chart 1. Summary of studies included in the integrative review, according to author(s), thematic category, objective, methodological details, key findings, and recommendations, Ribeirão Preto, SP, 2013.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Madeira et al., 2012 ⁷	Patient care and safety	To evaluate hospital infection (HI) prevention actions performed by the surgical team of the Surgical Center of a public teaching hospital in Teresina, Piauí.	Descriptive exploratory study. n=105 health professionals.	Most used prevention actions: use of the private uniform, the hat, the surgical gown, and surgical field. Infection in the perioperative setting 11%.	Seek actions that significantly control infections. Provide the team with qualification opportunities in HI.
Silveira and Faro, 2010 ⁸	Patient care and safety	To discuss aspects that raise reflections on the role of the OR nurse in the rehabilitation process.	Experience report by a health professional.	Aspects related to accident prevention and minimization of aggravations to the disability.	Participation of the nursing staff in the rehabilitation process.
Reches et al., 2010 ⁹	Patient care and safety	To observe and record the care of nurses with customer privacy in the OR during the transoperative period; to check the frequency of the exposure of the client's body, as well as the type, the need, and the patient's reactions to such exposure.	Quantitative/descriptive study composed of 50 observations of anesthetic/surgical procedures in the Surgical Center of Hospital Israelita Albert Einstein.	In 88% procedures, the nursing staff kept customer privacy, and in 12%, exposed as little as possible. Exhibition in 100% procedures relates to the preparation, monitoring, positioning, and anesthetic-surgical procedure. Patients feel respected in their modesty and privacy.	To evaluate the content taught and the quality of training of professionals, aiming at a humanistic education, not just technical.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Peniche and Araújo, 2009 ¹⁰	Patient care and safety	To identify the activities performed by the nursing team, mentioned by the OR nurses in the transoperative period, with the potential to trigger failure in the nursing care.	Exploratory, descriptive study with a quantitative approach, consisting of 50 nurses.	Activities with potential to trigger failures: 60% annotations by the nursing team; 20% position of the surgical patient; 8% aseptic technique; 8% submission of parts to pathology; 2% surgical planning; and 2% patient identification.	To consider and practice the legal ethical aspect of the documentation of patient care.
Silva and Meirelles, 2009 ¹¹	Patient care and safety	To describe the systematization of OR nursing care to children.	Descriptive study composed of nurses.	The systematization uses the strategy of permanence of family members in the Surgical Center with the child, as well as the use of toys.	Providing cozy recreational activities and psychological support to children clientele and their families.
Barreto and Barros, 2009 ¹²	Patient care and safety	To investigate the knowledge and opinions of members of the nursing team about the humanization of care, to identify care and non-care aspects in the assistance provided by the nursing staff during surgery.	Descriptive, qualitative and quantitative study composed of 20 nurses.	100% professionals recognize the need for humanized assistance, but some aspect of the care is insufficient. The aspect of leaving the patient alone in the OR was identified in 80% professionals.	The provision of humanized care should include actions aimed at the patient and the integration and involvement of the entire nursing team with others (professionals or clients).
Grittem, Méier and Peres, 2009 ¹³	Patient care and safety	To develop a participatory process to structure the perioperative nursing care in the Surgical Center unit of a hospital in Curitiba.	Qualitative study consisting of seven nurses.	The participatory process is related to organizational structure and conditions for nursing care.	To reflect on the perioperative nursing care and enhance the actions taken by nurses.
Kunzle et al., 2006 ¹⁴	Patient care and safety	To detect concepts that translate myths and truths regarding NI among members of the OR nursing staff in small-, medium-, and large-sized hospitals.	Descriptive analytical study composed of 51 nursing professionals.	72% respondents indicated that perioperative nursing knowledge levels are satisfactory in general.	To invest in continuing education programs aiming at a significant improvement of results on infection control, patient care, and optimization of hospital resources and new scientific research.
Aquino and Caregnato, 2005 ¹⁵	Patient care and safety	To understand the perception of nurses working in the Surgical Center of the humanization of perioperative care.	Exploratory-descriptive qualitative study consisting of 10 nurses.	Nurses correctly define what humanization is, but they do not always practice it due to the workload, the staff, and the bureaucratic services, but have awareness of the importance of this initiative for the care of the patient.	To encourage reflection from Surgical Center professionals on the humanization of perioperative care, seeking to improve the quality of care.
Lima, Melo and Rocha, 2005 ¹⁶	Patient care and safety	To identify, in the care to adolescents, the Surgical Center, their expectations, fears, and anxieties.	Descriptive study composed of 45 adolescent patients.	60% adolescents did not like the experience of undergoing surgery, due to the waiting, clothing, and not feeling that their feelings were valued.	To provide a warm care and atmosphere to the patient.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Oliveira, 2005 ¹⁷	Patient care and safety	To evaluate the humanization developed by nurses in managing Surgical Center technologies.	Cross-sectional exploratory and descriptive study, with quantitative approach, consisting of 33 nurses.	53% nurses associate humanization and technology as a combination that results in improved quality of the care given to patients.	To update the area's practices, as well as having incentives of institutions and greater opportunities for the management of new technologies.
Gonçalves and Silva, 2005 ¹⁸	Patient care and safety	To report experiences and reflections arising from activities implemented by occupational psychology with a group of OR nurses.	Descriptive exploratory study with Surgical Center professionals.	Occupational psychology enabled, in the context of surgical nursing, reflection on the particular ways of doing, feeling, suffering, and subjectifying, as well as to describe and discuss the work organization and relations between workers and technologies.	To achieve balance between manual work and the help of technology.
Bokor and Carvalho, 2004 ¹⁹	Patient care and safety	To identify the highest physical risks in ORs, based on construction and service installation standards of the Ministry of Health.	Field study, consisting of photographs of a Surgical Center of a medium-sized hospital in the city of São Paulo.	The main physical risks: windows open during surgical procedures, presence of extension cords in the ORs, inadequate identification of electrical installations, stretched wires in the ORs, open cabinets, and exposed pipes.	Standardization according to the Ministry of Health: the windows should be abolished, wall sockets in adequate numbers, identification according to the voltage, and no exposed pipes. Open cabinets and stretched wires should be avoided.
Leite and Bianchi, 2003 ²⁰	Patient care and safety	To evaluate the nursing care given to elderly in the Surgical Center.	Field study with a quantitative approach, consisting of 12 nurses.	91.67% nurses did not provide a differentiated care for the elderly in the Surgical Center.	Nurses should deepen their knowledge of the natural aging process in the biopsychosocial aspects, so that they can be able to evaluate and deploy an appropriate care plan.
Turrini et al., 2012 ²¹	Education	To provide a summary of the evolution of the contents of the surgical discipline in the School of Nursing of Universidade de São Paulo (EEUSP) and a reflection on the National Curriculum Guidelines (DCN) of the undergraduate course in nursing.	Reflective descriptive study composed of files from the Department of Graduation Services and reports of Surgical Center teachers from EEUSP.	1940s to 1960s: OR nursing. 1960s: performance in the Material and Sterilization Center (MSC) and OR. 1970 to 1990: MSC, OR, and Systematization of the Perioperative Nursing Care. 2000s: MSC, OR, and inclusion in the Supervised Curricular Training DNC values and recognizes the importance of this content for graduation.	Need for appropriating content for a better patient care at different times of their health-disease process.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Borghetti and Caregnato, 2011 ²²	Education	Meeting the expectations and experiences of nursing students about the Surgical Center discipline.	Exploratory, descriptive research with qualitative and quantitative approach, consisting of 101 nursing students.	Students who have not had the discipline expected to learn, challenge their fears, knowing the Surgical Center, and the role of the nurse. Students who have already had the discipline understand the responsibility of nurses in the area and recognize its structure and operation as critical and complex.	To reinforce the need to revisit the insertion of the Surgical Center discipline as indispensable in the curriculum in undergraduate courses in nursing.
Ribeiro, Bonfim and Silveira, 2011 ²³	Education	To report the experience in Continuing Education applied to the OR nursing staff of a major institution, specializing in oncology.	Experience report composed of 27 nursing professionals.	Due to the specificity of this area, Continuing Education is applied by the team itself.	Well-developed training, with the aim of providing quality patient care/safety.
Oki and Carvalho, 2009 ²⁴	Education	To identify the positive and negative feelings raised by students in the fourth year of the undergraduate course in the Surgical Center nursing discipline. To survey the pros and cons experienced by these students during the training in the Surgical Center nursing discipline, as well as to know their opinion on that experience.	Descriptive study with quantitative analysis, with 46 undergraduate students in nursing.	Positive feelings of curiosity and interest predominated in relation to negative feelings of anxiety. The pros include interaction with the staff, opportunity to learn, and adapt routines, and cons relate to the lack of experience, agility, skill, and dexterity. 91.2% students considered the experience great.	To demystify the negative concept about the experience related to OR nursing.
Bronzatti, Ponteli and Ferretti, 2008 ²⁵	Education	To report the experience of a group of OR nurses in the supervision of the extracurricular paid internship program with nursing students.	Experience report with nurses.	Nurses working in supervising the extracurricular paid internship program with undergraduate students in nursing believe the program will enable nursing students to, in the future, coordinate the OR nursing team, endowed with autonomy, responsibility, and competence, thus ensuring a qualified and humanized assistance to the entire community.	To provide opportunities and infrastructure that contribute to the process of practical learning.
Silva and Leitão, 2008 ²⁶	Education	To describe the situation experienced by students in the internship program.	Descriptive analytical study with 31 students.	The Surgical Center is a naturally stressful context, with the power play of the surgeon as the leader of the team, difficulty of the students to get along with the staff, and their lack of maturity.	There are initial problems, but students finish the internship with satisfaction.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Paoli, Caregnato and Millão, 2007 ²⁷	Education	To know the opinion of nurses about the need for a Surgical Center discipline in the undergraduate nursing course to support the theoretical and practical knowledge in patient care.	Exploratory and descriptive study with a quantitative approach consisting of 50 nurses.	The existence of the Surgical Center subject in the curriculum of undergraduate nursing courses is required for a general professional training.	To (re)think about the Surgical Center discipline in the curriculum of undergraduate nursing courses.
Matheus and Carvalho, 2005 ²⁸	Education	To gauge feelings, expectations, and pros and cons of the third-year nursing students in their first experience with surgical instrumentation.	Descriptive study with 30 undergraduate nursing students.	Feelings vary before and after instrumentation, going through anxiety, nervousness, tiredness, worry, incapacity, tranquility, security and relief, meeting the expectation of 80% students. Students easily settled into the team and had difficulties with nervousness.	To enable new opportunities for students to experience surgical instrumentation.
Coutinho and Friedlander, 2004 ²⁹	Education	To evaluate the teaching-learning process of psychomotor skills of the OR nursing discipline.	Descriptive study composed of 77 undergraduate students in nursing.	Students who presented better psychomotor performance the OR were not necessarily the same who had the same performance in the laboratory.	Nursing laboratories assist in the psychomotor performance of students.
Carvalho and Coutinho, 2003 ³⁰	Education	To evaluate the theoretical knowledge acquired by students in undergraduate courses in nursing during surgical instrumentation activities.	Descriptive study composed of 33 undergraduate students in nursing.	90.91% students had high average grades in theory after training with surgical instruments in the laboratory.	To conduct training in the laboratory after theory, which facilitates the understanding of the content, knowing that this is a continuous process, to be improved frequently.
Macedo et al., 2013 ³¹	Management and administration	To identify the occurrence of cancelation of surgeries at the Surgical Center of a university hospital knowing: surgical specialties involved, those responsible for surgical cancellations, the causes of surgical cancellations, the age range of patients, the period between cancelation and the performance of the new procedure surgical.	Quantitative, retrospective study comprising 1,449 surgeries canceled.	Frequent reasons for cancelation: the user was not hospitalized (18.5%), change in the surgeon's conduct (17.3%), elective time exceeded (16.5%), and patients with unfavorable clinical conditions (11.2%). Surgeries canceled: 80.9% were elective, 17.7% were urgent, and 1.3% were emergencies.	Encourage greater involvement of the professionals. Make the surgical schedule electronic. Active search for missing patients.
Gomes and Melanda, 2012 ³²	Management and administration	To describe the experience of the development of a systematic model for describing nursing routines in the Surgical Center of a rehabilitation hospital.	Descriptive analytic study with experience report.	A systematic model for describing nursing routines in the Surgical Center provides, through scientific evidence, the establishment of practices that can contribute to the continuous improvement of nursing care in the pursuit of total quality of services provided in the Surgical Center.	Standardization or systematization of information on routines and procedures in educational charts provides a more enjoyable and fast reading of such information, and contributes to the quality of nursing care.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Machado and Caregnato, 2012 ³³	Management and administration	To know the performance of the nursing staff working at the Surgical Centre in harvesting multiple organs for transplantation.	Exploratory, descriptive, qualitative study consisting of four OR nurses.	Teams trained and committed to act in the harvesting process of multiple organs for transplantation, and all use systematization of nursing care to run the process.	The performance of nurses in the surgery for multiple organ removal for transplant is essential, considering the teams trained to act in this process.
Medrado and Moraes, 2011 ³⁴	Management and administration	To describe the importance and difficulties of nursing audits and to identify adverse events of this process in the Surgical Center.	Experience report of a nurse auditor.	It is important for the quality of care and satisfaction of the institution and health insurers.	Continuing education in assistance and audit.
Gaspareli and Garanhani, 2010 ³⁵	Management and administration	To identify the meaning that OR circulators attribute to the nursing report done during surgery.	Descriptive study with qualitative analysis, with six OR circulators.	Different meanings are attributed covering communication skills, professional valuation, and legal documentation of the acts performed.	To value the content of nursing reports.
Souza et al., 2010 ³⁶	Management and administration	To identify the number of elective surgeries canceled in a time frame of 9 months, considering and analyzing determinants on the emotional, physical, and social implications for clients, family, and the institution.	Documental, retrospective and quantitative study composed of 973 canceled surgeries.	Surgical cancelation rate was 27.4%. This situation causes increase or reinforcement of fear about the surgical procedure, doubts, and fears of the family and customers about the actual clinical and surgical conditions, and the withdrawal of customers.	Cancelations can and should be controlled and restricted. It is recommended, in the first instance, to raise awareness in all those involved in such a situation, seeking to decrease suspension rates and, subsequently, to joint efforts to implement measures to restrict this event as much as possible.
Garanhani et al., 2009 ³⁷	Management and administration	To report the experience of resident nurses in the use of administrative tools in the diagnosis and prioritization of a strategic planning phases.	Experimental study with nursing home residents.	The knowledge and use of administrative tools available for strategic planning is considered relevant.	Understanding the management training helps in the development of a strategic planning.
Nepote, Monteiro and Hardy, 2009 ³⁸	Management and administration	To analyze the dynamics of ORs using operational indexes that measure the optimization, resistance, overload, and utilization of SC.	Prospective study comprising the analysis of 1,908 surgeries.	It is necessary to adapt the action plans to customer profiles and to exercise management based on facts and predefined processes, emphasizing effective performance practices and encouraging proactive actions and continuous learning.	Development of an operational score to evaluate the services provided by the Surgical Center and critical review of the main processes and routines involved in the surgical production.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Stumm, Maçalai and Kirchner, 2006 ³⁹	Management and administration	To identify difficulties faced by nurses who work in a Surgical Center of a hospital in the central region of the state of Rio Grande do Sul.	Qualitative, descriptive, and exploratory study consisting of four nurses.	Difficulties related to the demand of bureaucratic and administrative activities, maintenance of good interpersonal relationships between medical staff and nursing staff, and deficiency of personnel and material.	The need for the systematization of nursing care is not fulfilled, and it is necessary to rethink the structure, materials, and equipment, allowing the teams working in the Surgical Center to develop their activities in a more peaceful, productive, and effective way.
Ribeiro and Graziano, 2003 ⁴⁰	Management and administration	To identify and describe the criteria adopted by the nurses in the selection of surgical sutures for the development of their provision. To survey the modalities of provision of surgical sutures adopted in the Surgical Center.	Exploratory, descriptive, field, cross-sectional study, with a quantitative approach, consisting of health institutions and nurses.	Suture selection criteria: surgeon's request, standardization by specialty and knowledge. Suture supply: in the OR, 40% sutures are chosen at the time of surgery, whereas 32% are kits by specialty. At the hospital, 46% are purchased from the supplier and 32% through public competition. The stock is replenished according to a established quota in 58% hospitals.	To encourage reflection on the issue and to provide an incentive for the seeking of solutions to problems identified in the activities that permeate the task of providing the surgical sutures, one of several functions of the Surgical Center nurses.
Semeniuk, Durman and Matos, 2012 ⁴¹	Occupational health	To investigate the feelings of the nursing team professionals working in the Surgical Center of a teaching hospital in western Paraná concerning the death of patients.	Field, descriptive study with qualitative analysis composed of 15 nursing professionals.	Nurses become more sensitive when the patient who died is a child or when the death is due to tragic causes. There is evidence to suggest veiled suffering.	Questions for reflection in relation to the theme: what expected sentiment is considered healthy? What is normal in the face of death? Is there an ideal reaction?
Ferreira, Possari and Moderno, 2006 ⁴²	Occupational health	To identify factors that generate job satisfaction and dissatisfaction to Surgical Center nurses of a large public hospital in the city of São Paulo.	Quantitative study composed of 17 nurses.	The satisfaction factors are related to professional recognition, self-realization, and appreciation from colleagues and family for the work they do, and dissatisfaction is related to physical and psychological stress, benefits, function status, and personal development.	To create opportunities for intellectual improvement, systematization of care, valuation of workers and their activities, multidisciplinary interaction, allocation of responsibilities, and chances of participation in decision-making processes.
Schwarz and Baldin, 2005 ⁴³	Occupational health	To know the impact of the work in the OR on the health of nurses; To identify risk situations that the professional is exposed to; To propose self-care measures.	Field, qualitative and descriptive study composed of 15 members of a nursing team.	Impact is related to psychological tiredness and physical exhaustion; Risk situations are related to chemical, physical, biological, and ergonomic hazards; Health promotion and education measures are tools for self-care.	To promote the health of professionals; Need for professional and political articulation of the nursing staff, as well as training and updating of knowledge.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Carvalho et al., 2004 ⁴⁴	Occupational health	To determine the stress level of the nursing staff working in closed sectors (Surgical Center).	Descriptive study with 31 nursing professionals.	9.7% presented high levels of stress.	To encourage and enable situations to relieve stress, such as institutional spaces that provide interaction between team members so that they can verbalize feelings of anxiety, dissatisfaction, and conflict, experienced in the workplace.
Meirelles and Zeitoune, 2003 ⁴⁵	Occupational health	To define the profile of nursing professionals at an Oncology Surgical Center in the personal and professional aspects; To identify the degree of job satisfaction and stress, and stressors pointed out by them.	Descriptive study with a quantitative approach consisting of 70 members of a nursing team.	Most of the sample participants were women, in the age group of 31–40 years, and most had only secondary education, having another job also in a Surgical Center; Does not do it for the salary, but also because they feel deep emotional satisfaction related to the work and the results that come from their efforts; stressors are related to the conditions of the work environment.	To promote reflections on the worker's quality of life related to work environment conditions, to implement health-care programs aiming at workers' health, rational organization, and valuing of the work and the multidisciplinary interaction.
Gomes et al., 2013 ⁴⁶	Fields of work for nurses	To report the experience of Surgical Center nurses in a rehabilitation hospital that act as instrument nurses; To describe the use of the method of the 5S to Total Quality used by nurses as an educational mechanism to systematize the surgical instrumentation activity; To conduct a critical analysis of the nursing practice in surgical instrumentation, considering the legislation.	Experience report and descriptive analysis composed of nurses.	With multidisciplinary interaction, they develop knowledge that contributes to the improvement of patient care and for a more safe performance of surgeries. The five "S" method to Total Quality involves: Sense of use, Sense of sort, Sense of cleaning, Sense of health, and Sense of self-discipline; Surgical instrumentation is a component of the nursing and medicine actions for the recovery of health of human beings, as permitted by law.	To encourage nurses to dedicate to surgical instrumentation and its involved aspects.
Dienstmann and Caregnato, 2013 ⁴⁷	Fields of work for nurses	This study aims to ponder on the role of the perfusionist in cardiac surgery, revealing a field of work for nurses.	Experience report with a qualitative approach on the trajectory of a perfusionist.	It is believed that the nurse is a professional who has all the conditions and the expertise in the curriculum to carry out the perfusionist function.	It is necessary to look for and conquer new fields of work where nurses can show their ability and competence, occupying spaces that were so far nonexclusive.
Bianchi and Leite, 2006 ⁴⁸	Fields of work for nurses	Some considerations on the OR nurse and their future prospects.	Reflective study.	Professional training prospects and satisfaction provided to the client and their family, to the team, and to the nurses themselves.	Individual and institutional investment for professional training.

continue...

Chart 1. Continuation.

Author(s)	Thematic category	Objective	Methodological details	Key finding	Recommendations
Caldona, Hayashida and Mendes, 2006 ⁴⁹	Fields of work for nurses	To present a reflection and some considerations about the inclusion of nurses in the legal aspects of the operation of the Bank of Bones.	Reflective study.	The nurse participates effectively in the actions of the Bank of Bones, as well as the Organ Procurement Organizations and Transplant Centers. Thus, there is a need to regulate their inclusion.	To develop and invest in research on the subject and to comply with current legal requirements for this work.
Braga et al., 2009 ⁵⁰	Communication and ethics	To identify favorable and/or unfavorable situations that interfere in interpersonal relationships in the Surgical Center; To provide discussion spaces for the development of the interpersonal competence of the nursing team.	Exploratory, cross-sectional and qualitative study consisting of 10 professionals of the nursing team (focus group).	Favorable situations: dialogue and feeling valued. Unfavorable situations: lack of dialogue, of team spirit, of care with material savings and maintenance of equipment, and lack of knowledge of Surgical Center rules and procedures.	To encourage and value the proposals made by the groups in the team as part of the qualified development of nursing care.
Silva and Freitas, 2007 ⁵¹	Communication and ethics	To know and understand, based on the daily experiences of nurses working in the OR, the meanings they attach to their actions on the ethical occurrences with the nursing staff.	Qualitative study consisting of OR nurses.	To provide risk-free care to the patient and to avoid new occurrences, offering nursing care with responsibility, as recommended by the Code of Ethics for Nurses.	To raise interest in this issue, encouraging reflection of prospective students, nurses and professionals on the issue of nursing care and health with an ethical approach.
Duarte and Lautert, 2006 ⁵²	Communication and ethics	To unveil current conflicts and dilemmas for nurses working in the OR from the point of view of communicative action.	Descriptive study composed of 12 nurses.	Conflicts occur more frequently among nurses and surgeons due to lack of infrastructure to meet the demand, disrespect, and errors of the team. The dilemmas are related to the lack of infrastructure of institutions for health care and to sharing the difficult choices of doctors. They do not provide conditions for dialogue.	The development of the communicative competence is combined with technical expertise, enabling individuals to better understand each other.
Salimena, Andrade and Melo, 2011 ⁵³	Assistance to family members	To understand the feelings and perceptions of the family in the waiting room, in the case of surgical processes.	Qualitative study consisting of 17 family members of patients.	With comprehensive analysis, the highlights were anxiety, feeling of chest compression and suffering, as well as the lack of information on and clarification of the moment being experienced.	It up to the nurse and the other members of the health-care team to care for the family in a humane and empathetic way, paying attention to their needs, providing comfort during their stay, in addition to answering their questions, perceived by expressions of fear and anxiety.

Table 1. Distribution of the studies included in the review according to thematic categories, Ribeirão Preto, SP, 2013.

Thematic categories	n	%
Patient care and safety	14	30
Education	10	21
Management and administration	10	21
Occupational health	5	11
Fields of work for nurses	4	8.5
Communication and ethics	3	6.4
Assistance to family members	1	2.1
Total	47	100

DISCUSSION

Considering the patient care and safety category, which has the largest number of similar studies, its prominence is due to addressing questions about the care practice of the nursing staff, for the safety of the patient, concurrent with the concern of the “Safe Surgery Saves Lives” program, which aims to improve the safety of surgical care in the world by defining a core set of safety standards that can be applied in all countries and settings⁵⁴.

Thus, nursing care is defined as a set of therapeutic actions based on technical and scientific knowledge that considers the social, economic, cultural, political, and religious aspects, being organized in a thought-out and planned manner, designed to achieve the desired results in terms of patient safety and care, with family participation⁵⁵.

On analyzing the patient care and safety category, it was possible to characterize its specificities. In particular, one article on children¹¹, one article on adolescents¹⁶, and one article on elderly²⁰ point to the importance of personalized care for each phase, providing a play area for children, privacy and acceptance for adolescents, and, for the elderly, a service that involves not only the physical care but also with the aging process to develop and implement an appropriate and individualized care plan.

Also in this category, technology was discussed in two articles^{17,18}, namely the advancement and use of new technologies in the operating room providing patient assistance and security. Technology is indispensable to guarantee care with quality, but one cannot forget that this care is provided to human beings, and they need attention, love, and understanding. Thus, the nurse should always motivate their team toward humanization.

It was also possible to identify the physical risks that include health professionals and patients, indicating that the operating room nurse must ensure the safety and well-being of patients and surgical, anesthesia, and nursing teams because the physical risks can be prevented, reduced, or controlled when the procedures and regulations are adopted, being supervised by nurses¹⁹.

Of the 14 articles⁷⁻²⁰, 6^{11,16-20} addressed the specifics patient care, and the other 8 articles^{7-10,12-15} encompassed concepts of humanization, exposition, and control of nosocomial infection in adult patients, aiming at a skilled nursing care and ensuring care and safety.

One study in the education category discusses the extension and specialization in operating room nursing for professionals in the area²³, and nine studies address the surgical discipline at graduation^{21-22,24-30}, which reinforces the need for innovation in teaching techniques and the importance of the aid of technology in laboratories to improve the quality of nursing education in the operating room.

According to the management and administration category, the nurse takes the managerial role of the operating room and becomes responsible for planning and organizing activities, control and evaluation of material, and human resources and leadership. That is, they manage and administer the operating room with their team³¹⁻⁴⁰.

The five articles⁴¹⁻⁴⁵ in the occupational health category refer to aspects that affect the health of the professionals who make up the nursing staff in the operating room. Among them, some ailments were highlighted, such as musculoskeletal injuries, depression, varicose veins, and gastritis, which are health situations that can be related to unfavorable working conditions, whether in the ergonomic aspect, with overload of psychic, physical, and emotional tension, or in the environmental aspect, with the neglect of safety requirements in dangerous situations.

These studies point to the need for training and updating the knowledge of these professionals, considering the technical and scientific complexity of their workplace and the fragility of nursing workers faced with this increasingly complex environment, both in the technical aspect and in interpersonal relationships, in the constant contact with pain, human suffering, and death⁴³.

The articles in the fields of work for nurses category represent 8.5% of the total, that is, four articles⁴⁶⁻⁴⁹ that discuss some specifics in relation to nurses' work in the operating room.

One article⁴⁹ discusses the importance of involving the operating room nurse professional in a Bank of Bones, both in the organization and in relation to the collection, processing, and distribution process of bone tissue. Another article⁴⁷ addresses the issue of the perfusionist nurse, characterizing them as professionals with all the conditions and experience necessary to perform the function, and can also assist in the pre-, intra-, and postoperative, allowing a holistic view of the entire process and benefiting the patient's care. The article⁴⁶ that investigates the performance of nurses in surgical instrumentation reinforces that this provides high patient safety and greater confidence of the team, as it has knowledge that contributes to and facilitates work in the surgical field.

The article⁴⁸ that discusses the future prospects of the operating room nurse reports that the educational preparation is critical to the nurse's performance and valuation, performing their health-care, management, and educational functions, encompassing the role of nurse in the immediate pre-, intra-, or transoperative or immediate postoperative, regarding the patient, the family, and the health-care team.

In the communication and ethics theme, two articles⁵¹⁻⁵² discuss the importance of proper communication and ethics in the work team, seeking to provide assistance without risks to patients, continuous improvement of the service and responsibility in nursing care. One article⁵⁰ approaches the interpersonal relationship prioritizing communication, stressing that teamwork is based on dialogue, which is influenced by the individuals, group, and environment, considering communication as a qualified nursing care process.

Assistance to families was addressed in a single article⁵³, which emphasizes that nursing care should not revolve around

the patient only, but also around the family that experiences the situation with the patient, revealing the family's need to feel supported, assisted, and heard on their particularities, through a relationship of trust and solidarity. Thus, nursing must be present to clarify any doubts about the anesthetic-surgical procedure and perform in a safe and humane way.

The anxiety, the suffering, and the lack of information surround the family. Therefore, nurses and other members of the health-care team should establish greater interaction, promoting an integrated health care and establishing a bond of trust, cooperation, and acceptance regarding the diagnosis and procedures that the patient is undergoing⁵³.

CONCLUSION

Studies address issues such as the care and safety of adult patients, the role of nurses in management and assistance, the teaching of a surgical discipline in undergraduate nursing courses, and the factors that affect the health of the operating room team. This review identifies a few articles related to assistance to children, adolescents, and the elderly, as well as a scarcity of studies addressing family care during the anesthetic-surgical procedure.

It is believed that future research focused on these specific issues could provide support for the planning of nursing care in the operating room, considering specific elements of these groups to optimize their safety. It is worth highlighting the importance of studies focused on dealing with the relatives of the patients during the anesthetic-surgical procedure because this moment is experienced by both, the operating room is often completely unknown to them.

REFERENCES

1. Silva VM, Lins CMA, Veloso FC, Araujo TL. Publicações sobre enfermagem em Centro Cirúrgico no período de 1980 a 2002. Rev RENE. 2003;4(1):49-55.
2. Cruz EA, Soares E. A tecnologia em Centro Cirúrgico e o processo de trabalho do enfermeiro. Esc Anna Nery Rev Enferm. 2004;8(1):109-15.
3. Sociedade Brasileira de Enfermeiros de Centro Cirúrgico, Recuperação Anestésica e Centro de Material e Esterilização (SOBECC). Práticas recomendadas: Centro Cirúrgico, recuperação pós-anestésica e centro de material e esterilização. 6ª edição. São Paulo: SOBECC; 2013.
4. Melnyk BM, Fineout-Overholt E. Evidence-based practice in nursing & healthcare: a guide to best practice. 2nd edition. Philadelphia: LWW; 2011.
5. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. Texto Contexto Enferm. 2008;17(4):758-64.
6. Ursi ES, Galvão CM. Prevenção de lesões de pele no perioperatório: revisão integrativa da literatura. Rev Latino-Am Enfermagem. 2006;14(1):124-31.

7. Madeira MZA, Santana RAP, Santos AMR, Moura ECC. Prevenção de infecção hospitalar pela equipe cirúrgica de um hospital de ensino. *Rev SOBECC*. 2012;17(1):35-44.
8. Silveira CT, Faro ACM. O enfermeiro que atua em Centro Cirúrgico participa do processo de reabilitação? *Rev SOBECC*. 2010;15(1):26-8.
9. Reches D, Carvalho DB, Barreto RS, Carvalho R. Cuidados da equipe de enfermagem com a exposição do corpo do cliente no período transoperatório. *Rev SOBECC*. 2010;15(2):33-8.
10. Peniche ACG, Araújo BM. Atividades de enfermagem com potencial para desencadear falhas na assistência de enfermagem transoperatória. *Rev SOBECC*. 2009;14(2):36-40.
11. Silva DC, Meirelles NF. Humanização da assistência à criança em Centro Cirúrgico oncológico. *Rev SOBECC*. 2009;14(1):30-41.
12. Barreto RASS, Barros APM. Conhecimento e promoção de assistência humanizada no Centro Cirúrgico. *Rev SOBECC*. 2009;14(1):42-50.
13. Grittem L, Méier MJ, Peres AM. Sistematização da assistência perioperatória: uma pesquisa qualitativa. *Online Braz J Nurs*. 2009;8(3).
14. Kunzle SRM, Pereira CS, Alves KC, Pelá NTR, Gir E. Auxiliares e Técnicos de enfermagem e controle de infecção hospitalar em Centro Cirúrgico: mitos e verdades. *Rev Esc Enferm USP*. 2006;40(2):214-20.
15. Aquino CP, Caregnato RCE. Percepção das enfermeiras sobre a humanização da assistência perioperatória. *Rev SOBECC*. 2005;10(2):16-21.
16. Lima FM, Melo CRM, Rocha MRA. Adolescente e Centro Cirúrgico: experiências e expectativas. *Rev SOBECC*. 2005;10(1):15-9.
17. Oliveira MAN. A humanização no gerenciamento de novas tecnologias por enfermeiras de Centro Cirúrgico. *Rev SOBECC*. 2005;10(4):8-12.
18. Goncalves TR, Silva RN. Encontro com Ciborgues no hospital: cartografias de um campo cirúrgico. *Psicol Soc*. 2005;17(1):17-28.
19. Bokor AFK, Carvalho R. Riscos físicos no Centro Cirúrgico. *Rev SOBECC*. 2004;9(3):20-4.
20. Leite RCBO, Bianchi ERF. Assistência em enfermagem ao paciente idoso em Centro Cirúrgico. *Rev SOBECC*. 2003;8(4):23-7.
21. Turrini RNT, Costa ALS, Peniche ACG, Bianchi ERF, Cianciarullo TI. Ensino de enfermagem em Centro Cirúrgico: transformações da disciplina na Escola de Enfermagem da USP (Brasil). *Rev Esc Enferm USP*. 2012;46(5):1268-73.
22. Borghetti SF, Caregnato RCA. Enfermagem de Centro Cirúrgico: vivências dos acadêmicos. *Rev SOBECC*. 2011;16(4):18-25.
23. Ribeiro MB, Bonfim IM, Silveira CT. Estratégias de capacitação da equipe de enfermagem de um Centro Cirúrgico oncológico. *Rev SOBECC*. 2011;16(3):21-9.
24. Oki SS, Carvalho R. Sentimentos de alunos de graduação frente à disciplina de enfermagem em Centro Cirúrgico. *Rev SOBECC*. 2009;14(2):47-53.
25. Bronzatti JAG, Ponteli SRC, Ferretti HH. Investindo na formação do futuro enfermeiro do bloco operatório. *Rev SOBECC*. 2008;3(4):24-9.
26. Silva EL, Leitão GCM. Fatores que interferem no ensino e na aprendizagem no Centro Cirúrgico. *Rev SOBECC*. 2008;13(1):32-7.
27. Paoli MD, Caregnato RCA, Millão LF. Repensar a disciplina de Centro Cirúrgico na formação do enfermeiro. *Nursing (São Paulo)*. 2007;9(106):136-41.
28. Matheus P, Carvalho R. Instrumentação cirúrgica: sentimentos de graduandos de enfermagem diante da primeira experiência. *Rev SOBECC*. 2005;10(4):14-25.
29. Coutinho RMC, Friedlander MR. Manuseio de material esterilizado: processo ensino-aprendizagem em Laboratório de Enfermagem e Centro Cirúrgico. *Acta Paul Enferm*. 2004;17(4):419-24.
30. Carvalho R, Coutinho RMC. Aprendizagem teórica da instrumentação cirúrgica por alunos de graduação em enfermagem. *Rev SOBECC*. 2003;8(4):18-22.
31. Macedo JM, Kano JA, Braga EM, Garcia MA, Caldeira SM. Cancelamento de cirurgias em um hospital universitário: causas e tempo de espera para novo procedimento. *Rev SOBECC*. 2013;18(1):26-34.
32. Gomes JRAA, Melanda VS. Elaboração de rotinas para uma enfermagem de excelência em Centro Cirúrgico. *Rev SOBECC*. 2012;17(2):48-55.
33. Machado KPM, Caregnato RCA. Retirada de múltiplos órgãos para transplante: olhar do enfermeiro. *Rev SOBECC*. 2012;17(1):45-53.
34. Medrado SSR, Moraes MW. Auditora de enfermagem em Centro Cirúrgico: atuação do enfermeiro auditor. *Rev SOBECC*. 2011;16(1):56-62.
35. Gaspareli LF, Garanhani ML. Relatório de enfermagem: significado para o circulante de sala operatória. *Rev SOBECC*. 2010;15(3):40-7.
36. Souza NVDO, Mauricio VC, Marques LG, Mello CV, Leite GFP. Determinantes para suspensões cirúrgicas em um hospital universitário. *REME Rev Min Enferm*. 2010;14(1):82-7.
37. Caranhani ML, Tramontini CC, Silva Júnior EP, Kikuchi EM, Ribeiro RP. Planejamento estratégico: uma ferramenta administrativa para uso em Centro Cirúrgico. *Rev SOBECC*. 2009;14(3):60-8.
38. Nepote MHA, Monteiro IU, Hardy E. Associação entre os índices operacionais e a taxa de ocupação de um Centro Cirúrgico geral. *Rev Latino-Am Enfermagem*. 2009;17(4):529-34.
39. Stumm EMF, Maçalai RT, Kinchner RM. Dificuldades enfrentadas por enfermeiros em um Centro Cirúrgico. *Texto Contexto Enferm*. 2006;15(3):464-71.
40. Ribeiro AR, Graziano KU. Os fios de sutura cirúrgica e a enfermeira de Centro Cirúrgico: critérios de previsão e provisão segundo a natureza das instituições hospitalares. *Rev Esc Enferm USP*. 2003;37(4):61-8.
41. Semeniuk AP, Durman S, Matos FGOA. Saúde mental da equipe de enfermagem de Centro Cirúrgico frente à morte. *Rev SOBECC*. 2012;17(4):48-56.
42. Ferreira EM, Possari JF, Moderno AMB. Fatores de satisfação e insatisfação profissional do enfermeiro de Centro Cirúrgico de um hospital universitário de grande porte. *Rev SOBECC*. 2006;11(2):15-23.

43. Schwarz RZ, Baldin N. Saúde do trabalhador de enfermagem diante do trabalho em Centro Cirúrgico. *Rev SOBECC*. 2005;10(4):26-30.
44. Carvalho DV, Lima FCA, Costa TMPF, Lima EDRP. Enfermagem em setor fechado: estresse ocupacional. *REME Rev Min Enferm*. 2004;8(2):290-4.
45. Meirelles NF, Zeitoune RCG. Satisfação no trabalho e fatores de estresse da equipe de enfermagem de um Centro Cirúrgico oncológico. *Esc Anna Nery Rev Enferm*. 2003;7(1):78-88.
46. Gomes JRAA, Corgozinho MM, Lourencini JC, Horan LM. A prática do enfermeiro como instrumentador cirúrgico. *Rev SOBECC*. 2013;18(1):53-63.
47. Dienstmann C, Caregnato RCA. Circulação extracorpórea em cirurgia cardíaca: um campo de trabalho para o enfermeiro. *Rev SOBECC*. 2013;18(1):35-43.
48. Bianchi ERF, Leite RCBO. O enfermeiro de Centro Cirúrgico e suas perspectivas futuras: uma reflexão. *Rev SOBECC*. 2006;11(1):24-7.
49. Caldonha AM, Hayashida M, Mendes IAC. Transplante ósseo: aspectos legais para a reflexão da prática em enfermagem. *Rev Enferm UERJ*. 2006;14(2):287-91.
50. Braga AM, Berti HW, Rizzo ACMCR, Silva MJP. Relações interpessoais da equipe de enfermagem em Centro Cirúrgico. *Rev SOBECC*. 2009;14(1):22-9.
51. Silva MA, Freitas GF. Significados atribuídos pelos enfermeiros às ações nas ocorrências éticas no bloco operatório. *REME Rev Min Enferm*. 2007;11(4):425-31.
52. Duart LEMN, Lautert L. Conflitos e dilemas de enfermeiros que trabalham em centros cirúrgicos de hospitais macro-regionais. *Rev Gaúcha Enferm*. 2006;27(2):209-18.
53. Salimena ALO, Andrade MP, Melo MCSC. Familiares na sala de espera do Centro Cirúrgico: sentimentos e percepções. *Ciênc Cuid Saúde*. 2011;10(4):773-80.
54. Organização Mundial da Saúde. Aliança Mundial para a Segurança do Paciente. Segundo desafio global para a segurança do paciente: Cirurgias seguras salvam vidas. Rio de Janeiro: Organização Pan-Americana da Saúde; Ministério da Saúde; Agência Nacional de Vigilância Sanitária; 2009. Disponível em: http://bvsmms.saude.gov.br/bvs/publicacoes/seguranca_paciente_cirurgia_salva_manual.pdf
55. Bottosso RM, Alves BP, Almeida DL, Lima JV. Manual do processo de enfermagem e sua aplicação no Centro Cirúrgico e Centro Obstétrico. Cuiabá: Universidade Federal de Mato Grosso; 2006. Disponível em: http://www.ufmt.br/ufmt/site/userfiles/CENTRO_CIRURGICO.pdf