ABSTRACT

Objective: analyzing the scientific evidences related to operating practice of the nurse in a center of material and sterilization. Method: an integrative review, in order to answer the question << What knowledge produced about the nurse’s operational practice in the center of material and sterilization? >> The inclusion criteria were publications in Portuguese, English and Spanish, available for free in full text, published from January 2002 to October 2012, in the Lilacs database, in the virtual library SciELO and Capes journals Portal. The search period was in October 2012. Results: there were selected two articles for the sample. Conclusion: it is fundamental to enhancing studies for the development of research for the subject in question and producing significant evidence concerning the nurse’s operational practice in the center of material and sterilization. Descriptors: Technology; Instrumentation; Hospital Central Warehouse; Work; Nursing.

RESUMEN

Objetivo: analizar las evidencias científicas relacionadas a práctica operacional del enfermero en centro de material e esterilización. Método: revisión integradora, con el propósito de responder a la pregunta << ¿Cuáles son los conocimientos producidos acerca de la práctica operativa del enfermera en el centro de material y esterilización? >> Los criterios de inclusión fueron publicaciones en portugués, inglés y español, disponibles gratuitamente en textos completos, publicadas entre enero de 2002 y octubre de 2012, en la base de datos Lilacs, en la biblioteca virtual Scielo y Capes. El período de búsqueda fue octubre de 2012. Resultados: se seleccionaron dos artículos de la muestra. Conclusión: es fundamental para mejorar los estudios para el desenvolvimiento de pesquisas voltadas para a temática em questão e que produzam evidências significativas relativas à prática operacional do enfermeiro em centro de material e esterilização. Descriptores: Tecnologia; Instrumentación; Almacén Central Hospitalario; Trabajo; Enfermería.
INTRODUCTION

The main function of the center of material and sterilization is the provision of health products in a position to direct care and health care for the sick and healthy individuals. The material and sterilization center is present in health facilities that have operating room, delivery room, hemodynamics, emergency high complexity and urgency. 1

As the need arose to incorporate modern materials to new surgical techniques, there was required from professionals skills adapted to technological advances. If last concern for the preparation of personnel in the crowded center of material and sterilization was minimal, currently, the market requires an updated, interested and committed professional. 2

The professional staff from the center of material and sterilization consists of nurses and technicians and/or nursing assistants, fitting to the nurse the direct supervision of the activities carried out there. Specifically, the nurse develops in the center of material and sterilization activities aimed at coordinating unit, personnel management and technical-administrative nature activities. 3

The nurse performs nursing activities where he have private functions reserved to the direction of the nursing body; the head of service and nursing unit; planning, organization, coordination, implementation and evaluation of nursing care services, characterized as well as working with low visibility. The professional usually chooses not to work there and many do not have the proper qualifications for the development of activities. 3-6

In general, the employee selected to work on a material and sterilization center is one that adapts to the general rules of unity, has difficulty in interpersonal relationships, is waiting for retirement, do not have specific training and even those who have knowledge limited and do not fit the direct assistance. 5-8

The professional profile of the individual who is responsible for processing articles influences, positively or not, the results of counseling with reflections on patient safety. The completion of the steps of the sterilization process within the standards of good practice is a key factor to ensure that procedures involving the use of critical articles are not responsible for the transmission of infections. The best guarantee of a sterile product is the careful execution of each step of the process with a continuous program of quality control. Knowledge of cleaning, packaging, selection cycle and the use of chemical, physical and biological indicators are paramount. 9

Technological development has provided surgery with less risk and better patient recovery, but the infections related to health care are causes for concern on the part of professionals. 10

Concern to identify articles that address the nurse's operational practice in the center of material and sterilization justified by the publication of regulatory standards that highlight the presence of nurses in carrying out activities in that sector 3 and good products processing practices to health. 11

OBJECTIVE

- Analyzing scientific evidences related to operational nursing practice in a center of material and sterilization.

METHOD

This is a descriptive study, of literature review type, which is considered suitable for the synthesis of knowledge about a certain topic. 12

For the preparation of the integrative review, there was carried out the following steps: establishment of the research question, literature search, categorization of the selected studies, evaluation of the studies included in the review, interpretation of obtained results and the presentation of the review. 13

In order to guiding the search for articles, there was the question: What are the knowledge produced about nurse's operational practice in the center of material and sterilization?

For the development of this study, we sought for publications available in Portuguese, English and Spanish indexed in the following Latin American database and Caribbean Health Sciences (Lilacs), the Scientific Electronic Library Online (SciELO) and the Portal of journals of Higher Education Personnel Training Coordination (Capes), from 2002 to 2012. The temporal cut is justified to ensure the timeliness of the surveyed data.

There were conducted the search during the month of October 2012, using the descriptors "nursing, sterilization, work."

Have been adopted as exclusion criteria the notes to the editor, and abstracts published in scientific events, theses and unpublished dissertations.

It was used a form in order to collecting the data from the reading of the articles, which contained the following items: origin, article title, journal in which the article was published, type of methodological approach,
year of publication and considerations. Data were analyzed descriptively.

The use of descriptors combined with the Boolean operators “or, and, and not” pointed 56 studies. In the Lilacs database, there was the search by nursing combination and sterilization and work and not fertility, which resulted in 20 publications.

In SciELO virtual library, the search using the nursing combination and sterilization and work and not fertility resulted in other 10 publications; and in search on Capes journals Portal by combining nursing and sterilization and work and not fertility, resulted in 26 publications.

After a preliminary reading of the title and summary of publications, we excluded the publications that were duplicative and that did not respond to the research question. With the application of the inclusion and exclusion criteria, we selected two articles for the sample.

RESULTS

Regarding the merits of the article "The use of paraformaldehyde tablets by health institutions in Brazil: Part II" and the article "Reprocessing of medical products: the regulatory policy to operational practice", both were taken from journals Portal Capes, and the first published in the Journal of the University of São Paulo Nursing School (REEUSP) and the second in Science and Collective Health.

The article "The use of paraformaldehyde tablets by health institutions in Brazil: Part II" consists of an exploratory, descriptive, field, cross with a quantitative approach, published in 2002 and fourth level of scientific evidence.14

The study target population consisted of all health institutions in Brazil, registered by the Brazilian Institute of Geography and Statistics (IBGE/92), which represented the most current version at the time the data were collected. Private clinics and nursing homes were excluded. The questionnaire was completed by 419 hospitals and 24 hospital institutions not exclusively, represented by mixed units, centers, stations and mini health centers. The use of paraformaldehyde tablets was confirmed in 253 institutions.14

The uses of paraformaldehyde tablets are addressed and highlighted the lack of adherence to a theoretical basis for process reasons and the absence of validation, which are not included temperature, humidity increment of the relative and proper quantification of the tablets in the process of sterilization. This practice is not based on based parameters that guide the reutilization of paraformaldehyde tablets in the processes.14

The second article is entitled "Reprocessing of medical products: the regulatory policy to operational practice", published in 2011 and using a systematic review of secondary data as a methodological approach and level 5 of scientific evidence.

The authors of this article developed it in order to contextualizing the regulation of medical products systems, and analyze the operational implications for the Brazilian hospital practice. They emphasize that the context of the regulatory schemes of medical products in Brazil and worldwide, in addition to the basic rules of norms on the processing of these products represent the subsidy sources for analysis of operational implications for practice in Brazilian hospitals.15

In a country with so much diversity and specificities like ours, without a guideline covering the operational practice in question, it becomes extremely difficult to validating the processing protocols in health facilities. So, question is "how to deal with scientific uncertainty associated with the processing of an article, whether single or reprocessable use without the basic conditions said the literature, which can guarantee the security of the process"15

Finally, it suggests the development of a regulatory process control system in order to overcoming the challenge of how to effectively operationalize the current regulatory policy processing medical products in Brazil, so that reduce risks and to confer safety and quality in patient care.15

DISCUSSION

To find articles that examine nurse’s operational practice in the center of material and sterilization, it was observed how scarce is the production of studies for that area which corresponds to a limitation of the study.

Although the literature indicates that there is currently a need for qualified professionals to carry out the functions and actions of the professional are directly reflected in direct assistance16, the study of nursing practice operating a center of material and

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English/Portuguese
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sterilization is still overlooked in the reality of scientific literature.

The publication of the Collegiate Board Resolution (RDC) No. 15; in the Official Gazette on March 19th, 2012, relates to good practice requirements for the processing of health products in material and sterilization centers throughout Brazil. It can be seen that even supported by a resolution that emphasizes best practices, there is a need to develop research focused on nurses’ operational practice in the center of material and sterilization, since the nurses’ working process is not limited in managing or caring but advances in research and teaching.

The quality of the actions performed by nurses at the center of material and sterilization relates to the combined operational practice with adequate physical structure as well as material and human resources involved in developed tasks. The processing of health products has become increasingly difficult as with the development of new technologies, the design of such products becomes more complex. Thus, it requires careful staff training to ensure: disassembly when possible, cleaning, rinsing, and appropriate disinfection and sterilization. The nurse’s operational practice is directly related to infection control process, since the use of health products processed by failure to follow operating practices based in the scientific knowledge impairing the health of the patient, significant effects on infection control related to health care.

CONCLUSION

The results of this review are reflected reduced to nursing practice operating a center of material and sterilization, with a probability caused by the difficulty faced by the lack of knowledge and lack of research.

One should not forget that practices require the need for research and the search for professional qualification refers to the constant need for improvement. Noting that, in the pursuit for improvement in the profession, researches emerge from practice as well as new practices emerging from researches.

Given the evident gaps and the results posted by the articles analyzed, it becomes essential to enhancing the studies for the development of research addressing the nurse’s operational practice in the center of material and sterilization.

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