

The role of nurses in the sterilized material center: Literature review

A atuação do enfermeiro na central de material esterilizados: Revisão de literatura

Gleison Faria¹, Ana Paula do Nascimento Pinheiro¹, Dhieniffer Naiara da Silva¹, Iuri Santana de Jesus¹, Francisco Leandro Soares de Souza¹, Gilvan Salvador Junior¹, Taís Loutarte Oliveira¹, Juliana Peixoto dos Santos¹, Karolayne Soares Cavalcanti¹, Márcia Gisele Peixoto Kades¹, Loara de Assis Souza¹, Mariana Kely Diniz Gomes de Lima¹, Paulo Henrique Campos da Silva¹, Claudio Henrique Marques Pereira¹, Clícia da Silva Castro¹, Greyci Kelly Santos Araújo², Diuliane Rocha Fuester², Diulia Rocha Fuester², Lilian Caldas Ornelas², Mirian Ulkowski², Millrihe Vieira da Silva², Queila Schulze de Almeida², Giselen Maleski Cargnin³, Francielly Maira Bordon⁴, Jessica Lene Ferreira Araújo dos Santos⁵, Pedro Washington Moreira⁶, Marco Rogério da Silva⁷, Viviane de Fátima da Silva⁸

¹Nurse at the Faculty of Biomedical Sciences of Cacoal – FACIMED – RO, Brazil. E-mail: gleisonfaria@hotmail.com

^{2*}Graduated from Higher Education in Cacoal, FANORTE, Rondônia, Brazil

³Nurse at the Claretian University Center - CEUCLAR - Porto Velho – RO

⁴São Lucas University Center, Ji-Paraná, Rondônia, Brazil

⁵Graduated in Higher Education from the Union of Higher Schools of Rondônia, Rondônia, Brazil

⁶Graduating from Faculdade Uneuro - Ouro preto do Oeste - Rondônia, Brazil.

⁷Nurse at the University of Vale do Rio dos Sinos – UNISINOS - São Leopoldo, Rio Grande do Sul, Brazil

⁸Nursing student at Unopar - Vilhena - Rondônia, Brazil

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Keywords— *Material Central, Nurse,
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Abstract— *The Center for Materials and Sterilization (CME) is the department responsible for processing health products (PPS) and its mission is to provide properly processed materials for nursing services. This study aimed to describe the role of nurses in the sterilized material center. The Methodology is a bibliographic review of the literature, with a search in the Scopus, Latin American and Caribbean Literature on Health Sciences (Lilacs), Scientific Electronic Library Online (SciELO), PubMed and Virtual Health Library (BVS) databases. Central axes of the work of nurses in the CME stand out, such as the development of department management and educational activities. In addition, some of the challenges faced by professionals can be identified. The nurse's role in the CME begins in the unit's planning phase, where he selects the physical and human resources based on the activities to be carried out in the sector. The*

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nurse is responsible for the selection, training and adequacy of the team, taking into account the operations and activities to be carried out in the unit. It is concluded that the nurses who work in the CME and evaluate the frequency with which the activities assigned to this professional were carried out in this professional unit, which is characterized as a sector of a health institution and whose work process includes specific knowledge and practices, whose goals and objectives differ from the other units of the institution. Due to its characteristics, it is recognized for the nature of the work of indirect production of care, which instrumentalizes help in the field of health, providing the necessary support for the various care activities.

Resumo— A Centro de Materiais e Esterilização (CME) é o departamento responsável pelo processamento de produtos para saúde (PPS) e tem como missão fornecer materiais devidamente processados para os serviços de enfermagem. Este estudo teve como objetivo descrever a atuação do enfermeiro na central de material esterilizado. A Metodologia trata-se de revisão bibliográfica da literatura, com busca nas bases de dados Scopus, Literatura Latino-Americana e do Caribe em Ciências da Saúde (Lilacs), Scientific Electronic Library Online (SciELO), PubMed e Biblioteca Virtual em Saúde (BVS). Destacam-se eixos centrais do trabalho do enfermeiro no CME, como o desenvolvimento da gestão do departamento e das atividades educativas. Além disso, alguns dos desafios enfrentados pelos profissionais podem ser identificados. A atuação do enfermeiro no CME começa na fase de planejamento da unidade, onde ele seleciona os recursos físicos e humanos com base nas atividades a serem realizadas no setor. O enfermeiro é responsável pela seleção, treinamento e adequação da equipe, levando em consideração as operações e atividades a serem realizadas na unidade. Conclui-se que os enfermeiros que atuam no CME e avaliar a frequência com que as atividades atribuídas a esse profissional eram realizadas nessa unidade profissional, que se caracteriza como um setor de uma instituição de saúde e cujo processo de trabalho inclui conhecimentos e práticas específicas, cujas metas e objetivos diferem das demais unidades da instituição. Por suas características, é reconhecida pela natureza do trabalho de produção indireta do cuidado, que instrumentaliza a ajuda no campo da saúde, fornecendo o suporte necessário para as diversas atividades assistenciais.

I. INTRODUCTION

The Center for Materials and Sterilization (CME) is the department responsible for processing health products (PPS) and its mission is to provide properly processed materials for nursing services. In this area, recycling, cleaning, sterilization, inspection, packaging and distribution of materials to various consumer areas take place (MADEIRA et al., 2015; WANG et al., 2018).

CME plays a complex role in ensuring that PPS is sanitized and delivered with adequate quality, helping to reduce healthcare-associated infection rates (HAI) and clean healthcare. The sector provides indirect assistance to patients, providing safety items that assist in direct care, with the primary objective of handling, storing and distributing materials, inserting the attributes of nurses in

this work environment (GOUVEIA et al., 2016; BASU et al., 2016; BASU et al. al., 2017).

In addition to supervising the activities of the nursing team that works in the sector, the nurse is also responsible for managing and operationalizing all the steps that make up the movement of materials (HOYASHI et al., 2015). In this sense, the nurse's role requires specific knowledge related to different equipment, items, surgical instruments and how they are handled, as well as the management of MSC (LUCON et al., 2017; BUGS et al., 2017).

The ability of nurses to perform their activities guarantees the effectiveness of the MSC process, in addition to cooperating for the prevention of HAI, but the importance of their work needs to be constantly emphasized to the nursing team, by the team and presented

to nurses, others in the units of the institution to obtain the recognition they deserve, not stealthily (SANCHEZ et al., 2018).

Thus, it is reasonable to carry out further research on the work of CME nurses, highlighting their attributes and activities and the relevance of their work, as well as the challenges of doing so.

The general objective of the research is to describe the role of nurses in the sterilized material center.

II. MATERIALS AND METHODS

This is a qualitative study carried out through a thorough literature review. This type of scrutiny makes it possible to analyze scientific research in a systematic and broad way, facilitating the characterization and dissemination of the resulting knowledge. Its purpose is to collect and synthesize research results on a specific topic or issue in a systematic and orderly manner.

The following inclusion criteria were used: Complete articles on research objectives published in scientific journals and online libraries in Portuguese, English and Spanish between 2010 and 2021. The exclusion criteria were studies published in congresses, blogs, forums or studies that did not meet the research objectives or deadlines. To this end, 14 scientific articles related to the topic were analyzed, published between 2010 and 2021 in the following databases: National Library of Medicine (PUBMED), Literature, Health Sciences of Latin America and the Caribbean (LILACS), Virtual Libraries of the Ministry da Saúde (BVS), Scientific Electronic Library Online (SciELO), Brazilian Journal of Nursing (REBEN) and Google Scholar.

The bibliographic research raises the question: How is the performance of nursing professionals in the preparation of material in the material and sterilization center? The articles that try to explain the topic are selected in Portuguese, English and Spanish.

This review, organized from December 2021 to January 2022, provides researchers with guidance on relevant topics so they can formulate hypotheses for children seeking solutions to common care-related problems.

III. LITERATURE REVIEW

Literature Review

By means of a bibliographic survey, central axes of the work of nurses in the MSC are highlighted, such as the development of department management and educational activities. In addition, some of the challenges faced by

professionals can be identified. The nurse's role in the CME begins in the unit's planning phase, where he selects the physical and human resources based on the activities to be carried out in the sector. The nurse is responsible for selecting, training and adapting the team, taking into account the operations and activities to be performed in the unit (PEZZI & LEITE, 2010; SALES et al., 2016).

From the planning and organization stages to the execution of the work, the nurse has a fundamental role to guarantee the functioning of the systems that involve the storage, preservation, distribution, transport and handling of equipment and materials, with the objective of maintaining the integrity of equipment and materials, products, and their effectiveness and quality to ensure patient safety in the care provided (SALES et al., 2016).

The research showed that the CME nurse's management involves multiple attributes, such as: coordinating the unit's work processes; supervise the activities carried out within the unit; define work schedules for each area of activity of the nursing team; supervise the execution of team activities; monitor the use of each work area equipment operation; inspect sterilization control documentation; monitor tests of products, supplies and equipment; confirm daily schedules for surgeries and check delivery of ordered materials; participate in administrative and managerial meetings of the units involved; monitor evaluation of CME quality indicators (COSTA & FUGULIN, 2011; GIL et al., 2013).

Management is one of the main responsibilities of nurses and includes many functions, such as planning and structuring services, developing administrative and operational tools, and managing human and material resources. The direct objective of the nurse's administrative behavior is to organize and control the work process, and the intermediate objective is to facilitate nursing and provide the patient with a chance of cure (GIL et al., 2013).

With regard to human resource management, it is worth noting that the nurse's work is challenging and demanding, involving humanistic values, personal and professional commitment, technical science and interpersonal knowledge, and dedication to indirect assistance to the health of individuals (SALES et al., 2016). As team coordinators, nurses seek to integrate other professionals, fostering interpersonal relationships and enhancing teamwork, which contributes to effective practice and safe care at all stages of the CME work process. al., 2009; STRIEDER et al., 2019).

Activities related to the supervision of equipment operations, which constitute one of the duties of the nurse in the CME, appear from time to time in the study. It

requires understanding of the equipment and its proper functioning, as well as staff training to ensure the reliability and safety of CME patient care (COSTA & FUGULIN, 2011; GIL et al., 2013).

Nurses carry out educational activities, including: monitoring, planning and facilitating training, participation in programs, committees, courses and activities involving CME units and participation in team performance evaluations. The nurse is responsible for carrying out educational activities that, through continuing education, seek to train the team to perform their tasks in a coherent and qualified way, with the objective of minimizing possible failures during cleaning, preparation, disinfection, sterilization and storage (SOUZA & CERIBELLI, 2004; OURIQUES & MACHADO, 2013).

The challenges faced by nurses and their staff in the unit are the lack of recognition, devaluation, unpreparedness and long-term education, which contribute to low self-esteem, dissatisfaction, inadequate professional preparation and high turnover in the sector. In addition, there are conditions related to work flow and organizational characteristics, including physical, chemical, biological and ergonomic hazards, structural deficiencies, two or more jobs, excessive working hours, low wages, and physical stress and mental health, which can leave employees professionals who are vulnerable to illness and compromise their health and quality of life (PEZZI & LEITE, 2010; COSTA et al., 2015).

The literature does not address the reasons why nurses choose to work at CME or the historical evolution of nurses' work processes in this area of nursing, but suggests that the challenges and inability to provide direct care to patients may be important factors. Factors that prevent professionals from working in the unit (CAVALCANTE & BARROS, 2020).

It is also noteworthy that nurses recognize the importance of their work in the CME and are concerned with the social representation of the unit, mainly because they are not recognized as guided by the development of this live nursing process, light techniques. It is difficult to assist in direct care and ensure the safety of procedures and interventions provided to patients (BARTOLOMEI & LACERDA; 2006; TAUBE & MEIER, 2007).

Nurses find it difficult to define workflow elements in the CSSD, particularly in terms of work objects and end products. In this sense, the work process of nurses in this department permeates the dimensions of management, care, teaching and research, being able to act in different objects of work, namely, material resources and human resources, to transform. Indirect patient care, which makes it difficult to characterize this work process and measure

the results obtained from it (BARTOLOMEI & LACERDA, 2006; CAVALCANTE & BARROS, 2020).

The performance of nurses in the CME has remained similar over the years, but with greater training of professionals in scientific evidence and management and the systematization of workflow tools, optimizing the operability of the assistance provided by the CME (CAVALCANTE & BARROS, 2020). This requires adequate instrumentation and working conditions, such as adequate physical structure, fair remuneration, quality equipment and materials, protocols and standards, effective communication skills, balanced scale, competent management and scientific knowledge (GIL et al., 2013; NAZARETH et al., 2018).

Given the above, it is important to emphasize that the role of nurses in the MSC, although challenging, is fundamental for the quality of care provided directly and indirectly. Nurses, therefore, need to be guided by the most recent skills and abilities, based on the human, ethical and technical sciences, seeking to contribute to the full potential of the nursing team in the most varied health practices (LUCON et al., 2017; GIL). et al., 2013).

IV. FINAL CONSIDERATIONS

The study made it possible to know the profile of nurses working in the CME and to assess the frequency with which the activities assigned to this professional were carried out in this professional unit, which is characterized as a sector of a health institution and whose work process includes knowledge and practices. specific, whose goals and objectives differ from the other units of the institution. Due to its characteristics, it is recognized by the nature of the work of indirect production of care, which instrumentalizes help in the field of health, providing the necessary support for the various care activities.

It was observed that the determination of the size of the CME staff is very important, because not always all professionals in the sector are from this branch of activity and are also not qualified to perform such functions, ignoring the chemical and biological risks in this branch of the body.

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