







REORGANIZATION OF THE CENTRAL SUPPLY STERILE DEPARTMENT: NURSING STAFF'S CONTRIBUTIONS

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ABSTRACT

Objective: to analyze the strategies used by nurses for organization and planning in the centralization process of the Central Supply Sterile Department at a General Hospital.

Method: this is a qualitative study of the history of the present time, carried out through an interview with 8 nursing professionals, such as nurses and nursing technicians at a hospital in the city of Petrópolis, state of Rio de Janeiro, Brazil. Data collection took place between September 2017 and August 2018. For analysis and interpretation of the documentary corpus, pertinence, sufficiency, completeness, representativeness, homogeneity and organization of documents in chronological order of the events during the investigated period were considered. The historical context was triangulated, with social structures and the symbolic universe resulting from interviews and documentary analysis. Thus, the categories of analysis emerged.

Results: the strategies used by nurses occurred through organization and new work practices, enhancement of the Central Supply Sterile Department, hiring new nursing technicians, staff training and insertion of new technologies before, during and after centralization from the Central Supply Sterile Department.

Conclusion: material sterilization at *Hospital Santa Teresa* continued with fractional nursing care among surgical patients and material processing. The strategies to centralize the sterilization unit contributed to a correct sterilization of hospital materials, resulting in expressive gains for nursing, *Hospital Santa Teresa*, society and control of Infections Related to Health Care.

DESCRIPTORS: History of nursing. Sterilization. Nursing care. Patient safety. Cross infection.

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REORGANIZAÇÃO DO CENTRO DE MATERIAL E ESTERILIZAÇÃO: CONTRIBUIÇÃO DA EQUIPE DE ENFERMAGEM

RESUMO

Objetivo: analisar as estratégias utilizadas pelas enfermeiras para organização e planejamento no processo de centralização do Centro de Material e Esterilização em um Hospital Geral.

Método: trata-se de um estudo de história do tempo presente, com abordagem qualitativa, realizada mediante entrevista, com 8 profissionais de enfermagem, entre eles enfermeiras e técnicos de enfermagem em um Hospital do município de Petrópolis, estado do Rio de Janeiro, Brasil. A coleta de dados ocorreu entre os meses de setembro de 2017 a agosto de 2018. Para análise e interpretação do *corpus* documental foi considerada a pertinência, suficiência, exaustividade, representatividade, homogeneidade e organização dos documentos em ordem cronológica dos eventos durante o período investigado. Procedeu-se a triangulação do contexto histórico, com as estruturas sociais e o universo simbólico resultante das entrevistas e análise documental, emergindo as categorias de análise.

Resultados: as estratégias utilizadas pelas enfermeiras deram-se mediante a organização e novas práticas do trabalho, a valorização do Centro de Material e Esterilização, a contratação de novos técnicos de enfermagem, treinamentos da equipe e a inserção de novas tecnologias, antes, durante e após a centralização do Centro de Material e Esterilização.

Conclusão: a esterilização dos materiais no Hospital Santa Teresa seguiu com a assistência de enfermagem fracionada entre os pacientes cirúrgicos e o processamento de materiais. E que as estratégias para centralizar a unidade de esterilização contribuíram para a correta esterilização dos materiais hospitalares vertidos em ganhos expressivos para a enfermagem, o Hospital Santa Teresa, sociedade e controle das Infecções Relacionadas à Assistência à Saúde.

DESCRITORES: História da enfermagem. Centro de esterilização. Assistência de enfermagem. Segurança do paciente. Infecção hospitalar.

REORGANIZACIÓN DEL CENTRO DE MATERIAL Y ESTERILIZACIÓN: CONTRIBUCIÓN DEL EQUIPO DE ENFERMERÍA

RESUMEN

Objetivo: analizar las estrategias utilizadas por las enfermeras para la organización y planificación en el proceso de centralización del Centro de Material y Esterilización en un Hospital General.

Método: se trata de un estudio de la historia de la actualidad, con enfoque cualitativo, realizado a través de una entrevista, con 8 profesionales de enfermería, entre ellos enfermeros y técnicos de enfermería en un Hospital de la ciudad de Petrópolis, estado de Rio de Janeiro, Brasil. La recolección de datos se realizó entre septiembre de 2017 y agosto de 2018. Para el análisis e interpretación del *corpus* documental se consideró la pertinencia, suficiencia, exaustividad, representatividad, homogeneidad y organización de los documentos en orden cronológico de los hechos durante el período investigado. Se trianguló el contexto histórico, con las estructuras sociales y el universo simbólico resultante de las entrevistas y el análisis documental, emergiendo las categorías de análisis.

Resultados: las estrategias utilizadas por los enfermeros se dieron a través de la organización y nuevas prácticas de trabajo, la valorización del Centro de Material y Esterilización, la contratación de nuevos técnicos de enfermería, la formación de equipos y la inserción de nuevas tecnologías, antes, durante y después de la centralización del Centro de Material y Esterilización.

Conclusión: continuó la esterilización de materiales en el Hospital Santa Teresa con cuidados de enfermería fraccionados entre pacientes quirúrgicos y procesamiento de materiales. Las estrategias para centralizar la unidad de esterilización contribuyeron a la correcta esterilización de los materiales hospitalarios, resultando en ganancias expresivas para enfermería, Hospital Santa Teresa, sociedad y control de Infecciones Relacionadas con la Salud.

DESCRITORES: Historia de la enfermería. Esterilización. Atención de enfermería. Seguridad del paciente. Infección hospitalaria.

INTRODUCTION

The Central Supply Sterile Department (CSSD) is a hospital unit dedicated to the processing of health care products (PHCP), which refers to a set of good practices related to the organization of service in CSSD. CSSD supplies care services with materials used by health professionals, properly processed, aiming at guaranteeing quality and sufficient quantity for safe health care.¹

The necessary requirements for the sterilization steps, according to ANVISA Board Resolution (RDC - *Resolução da Diretoria Colegiada*) March 15, 2012, include reception, cleaning, inspection, preparation, sterilization, storage, management and distribution of medical-surgical materials, aiming, in addition to patient safety, reducing hospital costs and length of stay.¹ All steps must be performed in different areas through a unidirectional flow, which contributes to the control of Health-Care Associated Infections (HAI).²

HAIs are defined as infections acquired by patients during a care procedure or during the period of their hospitalization. Reducing the risks of its occurrence is a challenge for health professionals, especially those linked to the sterilization unit. These challenges include processes related to sterilization and compliance with protocols that guide infection prevention measures, with a view to patient safety.³

CSSD, in this context, plays an important role in the world panorama, in which millions of people are affected by infections associated with the care provided in the hospital environment. When sterilization center activities are carried out inappropriately, this unit becomes a link that triggers such infections.⁴

Therefore, CSSD must be understood as a specific unit, whose care provided to patients occurs indirectly, through the work associated with hospital material sterilization that will be used for direct and quality care to patients.⁵

Despite the importance of indirect care, it is clear that their development is still often perceived as routine and repetitive activities. Thus, there is a gap about the importance of the work process at CSSD, as there is an understanding that professional training in nursing is directed towards direct care. However, the nursing staff acquires specific skills in all care functions - whether direct or indirect care - such as technological and scientific skills, which increasingly involve the process of sterilizing materials.⁶

The sterilization unit centralization in our country was determined by RDC 307, promulgated in 2002 by the Brazilian Sanitary Surveillance Agency (ANVISA - *Agência Nacional de Vigilância Sanitária*). This Resolution stipulated a period of two years for Health Care Establishments (HCE) to reorganize the physical spaces necessary in order to provide quality and effective care in HAI control.⁷

Until 2004, the hospital's sterilization unit, the setting for this study, maintained its activities in the same physical space as the operating room. In this context, nursing professionals divided their duties between assisting surgical patients and processing hospital materials. The need to centralize the sterilization service required investments in the construction of a new building, which occurred between the end of 2004 and the beginning of 2005. Considering these changes, it became essential to review the planning and organization of the CSSD centralization in that hospital.

The nursing staff assigned to the hospital's operating room was partly relocated to compose the new CSSD after its centralization. Therefore, it was necessary to reorganize indirect care during and after the process of centralizing this service. Thus, the objective is to analyze the reorganization of indirect nursing care, in the CSSD centralization process in a general hospital.

METHOD

This is a research of present time history. History is not only a study of the past, but also analyzes the present with less indentation and particular methods.⁸ The time frame adopted in this study ranges from 2002 to 2007. The initial milestone is supported by ANVISA's initiative in publishing the rules for HCE restructuring. The final milestone is sustained when the CSSD of that hospital was configured as an autonomous unit.

The historical sources used to develop this study consisted of written documents and oral testimonies. The written documents were laws, resolutions, Standard Operating Procedure (SOP), minutes book and ANVISA rules in force at that time. The oral sources were interviews recorded, digitally, and later transcribed and validated by participants, upon prior reading and subsequent authorization. The interviews were consented by signing the Informed Consent Term (ICF) after clarifying the objectives of this research.

From February to March 2018, eight nursing professionals were interviewed; among them two were nurses and six were nursing technicians involved in the CSSD centralization process at the hospital, whose time varied from 25 to 40 minutes. These professionals still work in the context of this research, being previously contacted about the availability and interest of being interviewed, in addition to the indication of other possible participants. Contacts were facilitated because some lived in the same municipality where they worked and, therefore, easily located. The interviews were carried out in a place chosen by participants. For all interviews, we used a semi-structured script containing questions about the work developed in the sterilization during and after the centralization of that service.

Nursing professionals who participated in the centralization process of the sterilization unit at the hospital were included. Nursing professionals unable to grant an interview due to illness or impaired memory were excluded. Participants were identified by means of an acronym corresponding to the profession, followed by a sequential number, namely nurses: NUR 1; NUR 2; nursing technicians: NUR TECH 1; NUR TECH 2; NUR TECH 3; NUR TECH 4; NUR TECH 5; NUR TECH 6.

The scenario of this research was a large and private general hospital, with 191 hospital beds and performs an average of 700 procedures per month. The operating room has ten rooms for surgical interventions and ten beds for anesthetic recovery.

Data analysis considered the documentary corpus composition from primary and secondary sources. The documentary analysis included pertinence, sufficiency, completeness, representativeness, homogeneity and organization of documents.⁹ Reliability of results was ensured by documentary set valuation, typical of historical research, and not only of isolated documents. Moreover, the chronology of events during the investigated period was considered. The historical context was also triangulated with existing social structures and with the symbolic universe resulting from interviews and documentary analysis, which made it possible to highlight the categories of analysis.

The study met all the formal requirements contained in the research standards that involve human beings and was approved by a Research Ethics Committee.

RESULTS

In the initial phase of CSSD centralization, this service was still connected to the operating room. Thus, nurses and nursing technicians divided their responsibilities between direct care in surgical care and indirect care, related to material processing.

The organization of nursing work in sterilization service was on the same scale as the operating room, elaborated by the latter's nurse. One of the strategies she used was to allocate nursing technicians with aptitude and preference in the sterilization unit to perform material cleaning and sterilization tasks, as noted in an interview excerpt: [...] *We kept in the CSSD those employees who were qualified and who liked the sterilization service. There were professionals who were really good at what they did, they knew a lot about the clamps, the material, so they provided us with a certain tranquility* (NUR 1).

However, several times, nursing technicians intercalated their performance in direct nursing care, related to the care of surgical patients and the requests of the medical staff; and also in indirect care, in material sterilization processing:

[...] *Each one had their own rooms to care for, prepare, care for patients before and after surgery, afterwards we had tasks with the materials. When we were not in the rooms, we had tasks, each one took care of a part of the sector: one of the hospital supplies, another of surgical supplies, another of sterilization* (NUR TECH 3).

[...] *There was a task schedule on Sundays. There was a room change schedule. In one month, I was in a room: orthopedics, otolaryngology or ophthalmology. Sterilization was done by us* (NUR TECH 4).

The work carried out in material sterilization, without due legislative recommendations, compromised incorrect processing of materials, increasing HAI rates. This situation occurred mainly when this activity was carried out in the most contaminated area of a sterilization unit - the purge - a critical place in nursing activities aimed at sterilization, as recalled by the interviewees:

[...] *Because the purge was small. It was a corridor, in fact, so the contaminated material was kept there. I didn't think this was appropriate, because we passed clean material in front of the purge for the next surgery and the cart was still there in the purge and with dirty material, sometimes covered, sometimes uncovered, because some cover it, others don't, without a specific routine* (NUR TECH 1).

[...] *People entered the purge, washed materials and prepared and then returned to the operating room. At the time, there was little sense. Today we understand that the infection rate was high due to what happened: crossing of flow of personnel and material* (NUR 2).

As a strategy to circumvent the difficulties in the work of sterilizing materials, operating room nurses began to place more emphasis on the sterilization unit activities in the last months of 2004, with a view to centralizing the CSSD. The orientation of this process, as already mentioned, was guided by the determinations of RDC 307 of 2002.

The emphasis given by professionals was due to changes planned in the space to be built for the CSSD centralization, and also by the increased complexity of surgical materials, which required greater care in their processing.

It is possible to perceive, through records made on duty shifts, that the nursing staff was more involved with issues of sterilization and management of surgical materials. The registration of a nurse in the minutes book, on August 25, 2004, signaled a new routine for making and distributing materials, which was contained in a new SOP, exclusive to the sterilization unit.

When incorporating new routines associated with PHCP, the nursing staff started to acquire new professional practices, attitudes, knowledge, care and attitudes related to the control of HAIs, as shown in the following statement:

[...] Nursing sterilized material from Consumer Units separately from the operating room. We inserted the separate material in the autoclave and a test for sterilization control, those chemical tests, was also entered. I already had a biological test for this control too [...] (NUR TECH 6).

These strategies were incorporated into the staff's work, so that it was possible for nurses in the operating room to organize, during the CSSD centralization period, the professional staff that would compose this new unit, as mentioned by a nurse:

[...] Over time, we observed those professionals who liked and performed material sterilization. They performed very well, without having such strict nursing supervision [...] (NUR 1).

In order to guarantee continuity of nursing care in the operating room and supply the staff sizing in the new CSSD, it was decided to hire new nursing technicians. This initiative went against professionals' profiles who already worked in the sterilization unit, who were generally elderly with health problems, close to retirement or with some physical or mental impairment:

[...] The nursing manager who participated in the hospital board gave me a huge amount of resumes for me to evaluate and hire. I said "here is my opportunity to be different from everything I had seen in hospitals I knew in Rio de Janeiro, related to age, health problems". So I said "I'm going to put a youth at CSSD. I'm going to renew". So, I took the resumes and started hiring young people from nineteen to twenty years old (NUR 1).

During the interviews with the new nursing technicians, the nurse at the operating room - assigned to take over the new CSSD's coordination - also used a persuasive speech so that they accepted the challenge of working on the new CSSD - a totally reorganized structure, with challenges and laws to be complied with in order for the service to guarantee the quality of direct care:

[...] You, nursing technicians, go to CSSD, you will know everything about material, how the process is done, this will be very important in your professional life afterwards, there in direct care. Then, over the course of months, maybe years, we will replace you. In six months, a year later, I had a big surprise, they fell in love with CSSD and not one of them asked me to leave, nor did one of them charge me if the opportunity had already arrived to exchange (NUR 1).

From there, the next step was training the nursing staff. With the new building in an advanced stage of construction, at the end of 2004, the nurse undertook a guided visit with the nursing technicians to introduce them to the directional flow of materials through the new CSSD areas. At the same time, she carried out health education with topics relevant to material preparation, sterilization and disposal, according to the following reports:

[...] The nurse always brought new material, she always talked and talked. Ah, if a scientific article came out, she would tell us, you know? About the correct sterilization time and some changes in the sterilization process (NUR TECH 1).

[...] Then, there was training on how to assemble na care cart to go down to surgery with sterile materials for use in surgery, as well as washing and preparing surgical materials (NUR TECH 5).

The hospital board at the time, having to comply with RDC 307 provisions, supported an entire change of the sterilization unit, as it aimed for an updated, less expensive and high-quality service in nosocomial infection control. The following reports by the nurses involved in setting up the new CSSD confirm the hospital director's position:

[...] *The director at the time was young, and when I sat down with him and showed him what that CSSD would be, how we would save, because we would stop working with outsourced service, it would be very, very hard work; but, for that, there would be a need for training for equipment with low-temperature physical-chemical sterilization, and that we needed to set up a reprocessing committee, because it was a very large load of thermosensitive materials. He understood, embraced the cause and helped the group that was there in the operating room a lot. In those last days, it was a great wear, even spending nights and days in that hospital (NUR 1).*

[...] *So, I was very lucky, because we had an executive director, at the time, who loved the service of the new CSSD. This part of the operating room, the operating room itself. He gave himself totally, and he trusted our work a lot (NUR 2).*

The CSSD centralization, at the beginning of 2005, marked, first, the separation between sterilization service and operating room. The nurse, who had already been dedicating herself more to the sterilization processes in the old operating room, took over the leadership at CSSD, while another nurse took charge of the operating room. We can find in NUR 1 statements a clear demonstration of how this division occurred:

[...] *As CSSD, already completely autonomous, was on the fifth floor of the new building, and the operating room on the fourth floor, there was no way for you to take over both sectors. I stayed with CSSD and another nurse took over the operating room, and we, for a period, due to adaptation of nursing technicians, mixed the scale, by mutual agreement. So, we took one or two who wanted to work in direct care, and we gave them the opportunity to work a little bit in the operating room, then they returned to CSSD. We worked on this partnership and it worked very well (NUR 1).*

Another strategy was nursing staff arrangement through centralized CSSD spaces, aiming to compose each of the areas of this service such as purge, preparation, sterilization, storage and distribution. In other words, each of them with its specificity and complexity; however, all articulated to fulfill material sterilization. According to the statements, we can perceive the division of labor in the new physical space, suitable for the unidirectional flow, in order to avoid cross-infection between professionals and materials:

[...] *I have already been placed in CSSD in an area, which, at first, was storage, precisely to equip care carts with materials for surgeries. It had a routine, all the CSSD areas had a specific routine (NUR TECH 1).*

[...] *But today, in 2005, there is a whole scale. I am in the field of disposable materials. I pack and take care of those materials. There is the purge staff, who are two nursing technicians on the scale. There is the part of the thermosensitive material, such as cardiac surgery catheter, which is another person who takes care (NUR TECH 2).*

Once the nursing staff was trained, sterilization management of the materials used by the hospital's Consumer Units (CU) became more efficient in each CSSD area; it was possible to implement the Nursing Process (NP) related to indirect care. After the centralization of sterilization activities was completed, it was possible to evaluate, according to excerpts from the interviews below, the benefits arising from the strategies associated with the management of the processed materials:

[...] *With the centralized CSSD, we started to control the quantity of materials dispensed for the Consumer Units to use in the care. Before the CSSD centralization, the units' professionals took many materials and returned a lot, because sterilization was due (NUR TECH 1).*

[...] *There was a lot of damage with material sterilization, because there are expenses with professionals to sterilize, with the sterilized material itself, expenses with autoclaves and with each sterilization cycle* (NUR TECH 3).

As a strategy for acquisition of new specific knowledge - necessary for implementing indirect care and HAI control-, the nursing staff received training and guidance, both from the nurse in charge of CSSD, and from the companies that supply new equipment, according to participants' statements:

[...] *When there was an update, the nurses passed it to the staff. They gave training here at CSSD, when a routine changes. ANVISA demands, everything is passed on to us. They show, there is a protocol, it is well organized* (NUR TECH 6).

[...] *We got training from equipment and input companies. That's how we started to make partnerships. When I came to supervision, I didn't understand. I understood how to prepare the material, but I didn't understand the capacity in liters of an autoclave, why one input was better than the other. I took a specialization course, but also looking for suppliers* (NUR 1).

Another strategy that contributed to HAI control, from the CSSD centralization, refers to a technology that was implemented in the new workspace, according to excerpts from the interviews:

[...] *When we arrived here at CSSD, we had a fully computerized system and connected to Consumer Units. The tweezers had barcode reading, something that was working* (NUR 2).

[...] *The materials used by Consumer Units, such as bedpans, were previously washed, packaged and sterilized. Now, with the centralized CSSD, there is a machine that is the thermal disinfectant, which does the entire cleaning and disinfection procedure* (NUR TECH 1).

[...] *They had new routines at CSSD because the process carried out with the materials was more modernized with the acquisition of new equipment* (NUR TECH 3).

Training strategies and insertion of technologies in the new CSSD impacted the hospital's financial management. As a result of this centralization, expenses with material reprocessing decreased, as the administrative control favored the number of sterilization adequate to each need of CU. A relationship of greater trust and visibility was then added to indirect care. Through the interviews, we verified this institutional and professional recognition:

[...] *Consumer Units followed the new CSSD routine in relation to sterile materials. The nursing technicians who worked in these units asked for the materials in the morning, so they could be delivered in the afternoon for the next shift to process again* (NUR TECH 4).

[...] *Patient care was safer with the sterilized materials correctly. Physicians also trusted more in the use of materials processed in the new CSSD* (NUR TECH 1).

In addition to expanding the scientific capital of CSSD professionals, it appears that the hospital was the pioneer in centralizing the activities of sterilizing hospital materials in the mountainous region of the state of Rio de Janeiro. This is an important gain for society that has been able to count, since 2005, with a quality service in HAI control. Even today, in 2019, the hospital is the only one in the region that has a centralized CSSD, with a service that processes materials for all CU.

DISCUSSION

A study carried out in southern Brazil pointed out some aspects considered important for an effective work of nursing professionals based in a CSSD. Such aspects contribute, in a great way, in recognition, and, therefore, visibility of this service and professionals who work there, namely: adopting a practice based on scientific knowledge, considering the experiences of nurses in this service and consumer units; permanent education with the purpose of training professionals in all material processing stages; prioritizing the selection of workers with qualifications and interest in working at CSSD; permanent and effective communication with consumer units; strategies for disseminating the work performed in that service; institutional support, translated into the necessary technological investment and understanding of the relevance of all activities developed at CSSD.¹⁰

Considering the qualifications listed and realizing the need to hire more nursing technicians to work at CSSD, when centralized, an autonomous sector in the scenario of this study, younger professionals without much experience were prioritized, with the subsequent purpose of adapt to the new work dynamics at CSSD; consistent investment in in-service training and permanent education was considered. Therefore, the care of nurses to adopt criteria contrary to the historical professional profile of the sterilization sector stands out. By training the staff of nursing professionals for CSSD, the training was planned in two ways: a guided visit by nurses to that CSSD under construction, to clarify new routines yet to be implemented, and health education with themes relevant to PHCP.

Acquiring new scientific and technological knowledge by the nursing staff in the processing of materials influenced the definition of professional selection criteria, with a view to forming a nursing staff in relation to the attributes listed above, which are fundamental for the new CSSD to function. In this regard, it was observed which nursing technicians had more aptitude and whether they expressed interest in working in such functions, provided that they are supported by a permanent education program.

A research carried out in a public hospital in the city of Rio de Janeiro with nursing professionals showed that in-service training and permanent education are tools that instrumentalize these professionals, providing changes in the work environment. Training promotes cognition, contributes to qualification and job satisfaction, which increases the performance of activities developed with visible results in care.¹¹

Another research involving nursing professionals in a CSSD shows that it is essential to have professionals who develop their activities in CSSD, interested and available to follow the growing technological and scientific development in this area. Therefore, it is concluded that the participation of nurses is essential in updating the labor process of material sterilization as well as in identifying the needs of their staff. With this, it is expected to guarantee efficiency of processes and contribute to infection prevention. Thus, verifying difficulties requires professionals to mobilize themselves to implement changes in the work process and to overcome weaknesses.¹²

The activities developed by the nursing staff at CSSD are complex, indirect and developed through the object of work: materials used to perform different care in the hospital environment, aiming at quality. Nurses are responsible for the management of material, physical and human resources, using specific knowledge about the stages of safe processing in the sterilization of such materials.¹³

Material management, including processing and sterilization, favors ideal conditions for hospital institutions to continue with care activities. Material management aims to balance said offer through availability of quality resources. The growth in demand for health care services, promoted by the principle of universalization of the Unified Health System (SUS - *Sistema Único de Saúde*), associated with the adoption of innovative technologies, led to a financial gap in meeting this demand.

In order to balance this disparity, necessary knowledge, based on practices and evidence from the cost management process with hospital materials, is required to obtain positive economic results.¹⁴

Technologies have an impact on the work process with materials, especially those that require complex cleaning. Therefore, its effectiveness should be discussed, among managers, in relation to operational benefits and costs, through acquisition of new equipment that facilitates PHCP.¹⁵

In this regard, all strategies adopted for the CSSD centralization and its proper functioning were motivated by the hospital board, setting of this study, which aspired to a more up-to-date sterilization service, with new equipment and of higher quality for hospital infection control. This initiative translates into the understanding on the part of managers, of the relevant role of CSSD as a unit with the mission of converting critical, contaminated and dirty products, into clean and sterilized, maintaining its functions after being subjected to the sterilization processes necessary to control infections. To this end, there is a need for safe sterilization equipment for microorganism elimination, with total control at each stage of this process.¹⁶

For this purpose, the nursing activities adopted in the new CSSD space were distributed in areas such as purge, preparation room, sterilization and distribution of materials. This strategy provided the process and administration of material sterilization. To ensure a sterilization process suitable for the new CSSD space, a nurse organized training with companies that supply new equipment, enabling the nursing staff to understand each step material processing step, such as cleaning, decontamination and sterilization.

The nurses who administer a CSSD face several challenges, from the management of human and material resources to organize all stages of the sterilization process. Divided into specific areas, CSSD presents industrial characteristics as a producer of materials for health. Furthermore, it must be a unit that guarantees patient care safety, with material control and safety.¹⁷

A study developed with nurse students from professional and academic master's programs - both multiprofessional -, whose participants graduated from five different higher education institutions (HEI), concluded, among other issues, that these professionals, in their professional training process, did not develop much interest in indirect care, aimed at material sterilization. They reported an absence of stimulus for the acquisition of this knowledge, considering lack of necessary contact, capable of arousing greater interest in this area, during the undergraduate nursing course.¹⁸ This would explain, to some extent, the difficulty that exists to attract more professional nurses committed to the processing of materials and its impact on the health of hospitalized people.

This study sought to elucidate the challenges of nursing professionals to reorganize an indirect care developed at CSSD as an autonomous unit. With this, it contributes to leaders who intend to centralize sterilization activities in other hospital units.

This research points, as a limitation, the need to invest in new studies that show HAI control before and after the CSSD centralization, as well as considering the relevance of other studies in managing material processing in CSSD and in consumer units. Certainly, such an investment has a financial impact for the health institution.

The vanguard in other studies can contribute to highlight the historical role of nursing involved in the sterilization process of hospital materials.

CONCLUSION

The nursing staff at the hospital's CSSD, as in other hospitals in our country, continued with fractional care, provided to surgical staffs and the preparation of all material used before and after each surgical procedure. In other words, a double function in the same social space as the operating room. However, direct care figured prominently due to professional nursing training guiding a care directly to patients - a fact that contributes to the invisibility of the CSSD unit, often observed as secondary or complementary.

The social role of nursing in CSSD, whether among peers or with other health professionals, needs to be reaffirmed through the positive impact on the management of all material processed and destined for consumer units. Improvements in communication and dissemination of the work developed may also point to a new look at CSSD.

Material sterilization was centralized and better administered. Such strategies have led to a significant gain for nursing, the Hospital and society, which have benefited from hospital care with better control of HAIs. Explaining better, through correct sterilization of materials used by health professionals in that institution; better workforce management by avoiding unnecessary reprocessing of materials accumulated in consumer units, having a direct financial impact for the institution.

The work developed by the CSSD's coordinating nurse, in nursing staff qualification, made it possible to reorganize indirect care in that institution and capitalization of institutional and professional recognition and visibility for the nursing staff, namely for nurses in this hospital, setting of this study.

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NOTES

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CONFLICT OF INTEREST

There is no conflict of interest.

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