

Nurses conduct in the surgical center in the COVID-19 pandemic scenario

RESUMO | Objetivo: descrever o que tem sido escrito cientificamente sobre a adequação da assistência da enfermeira no centro cirúrgico no cenário da pandemia por Covid-19. Método: Trata-se de uma revisão integrativa de literatura. Como critérios de inclusão, elegeu-se: artigos completos disponíveis em português e inglês, publicados a partir de 2020, ano que deu início a pandemia até janeiro de 2022. Para organização e análise dos dados, recorreu-se ao Método de Análise de Conteúdo. Resultados: Foram selecionados 8 artigos. Como categorias de análise, emergiram os seguintes temas: o estabelecimento de protocolos operacionais específicos para a realização de cirurgias durante a pandemia da Covid-19 e a necessidade de readequação dos profissionais de saúde e a importância da enfermeira neste contexto. Conclusão: A enfermeira teve papel fundamental em todo o processo de estruturação e direcionamento do cuidado ao paciente, destacando seu potencial como protagonista no processo de cuidar em saúde.

Descritores: Enfermeira; Centros Cirúrgicos; Enfermagem de Centro Cirúrgico; Pandemias; Covid-19.

ABSTRACT | Objective: to describe what has been scientifically written about the adequacy of nurse assistance in the surgical center in the context of the Covid-19 pandemic. Methodology: This is an integrative literature review. As inclusion criteria, the following were chosen: full articles available in Portuguese and English, published from 2020, the year the pandemic started until January 2022. For data organization and analysis, the Content Analysis Method was used. Results: Eight articles were selected. As categories of analysis, the following themes emerged: the establishment of specific operational protocols for performing surgeries during the Covid-19 pandemic and the need to readjust health professionals and the importance of the nurse in this context. conclusion: The nurse played a fundamental role in the entire process of structuring and directing patient care, highlighting her potential as a protagonist in the health care process.

Keywords: Nurse; Surgical Centers; Surgical Center Nursing; Pandemics; Covid-19.

RESUMEN | Objetivo: describir lo que científicamente se ha escrito sobre la adecuación de la asistencia de enfermería en el centro quirúrgico en el contexto de la pandemia de la Covid-19. Metodología: Esta es una revisión integrativa de la literatura. Como criterios de inclusión, se eligieron: artículos completos disponibles en portugués e inglés, publicados a partir de 2020, año de inicio de la pandemia, hasta enero de 2022. Para la organización y análisis de los datos, se utilizó el Método de Análisis de Contenido. Resultados: Se seleccionaron ocho artículos. Como categorías de análisis surgieron los siguientes temas: el establecimiento de protocolos operativos específicos para la realización de cirugías durante la pandemia de Covid-19 y la necesidad de readaptación de los profesionales de la salud y la importancia del enfermero en este contexto. Conclusión La enfermera jugó un papel fundamental en todo el proceso de estructuración y dirección del cuidado del paciente, destacando su potencial como protagonista en el proceso de atención a la salud.

Palabras claves: Enfermero; Centros Quirúrgicos; Centro Quirúrgico de Enfermería; pandemias; COVID-19.

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1 INTRODUÇÃO

The Surgical Center (SC) is a closed environment within the health service in which invasive and complex procedures are performed, which requires specialized, qualified and trained professionals to provide care aimed at recovering the health of clients.⁽¹⁾

The nurse must receive the client and accompany him at all stages of the surgical procedure, whether even in the preoperative care, performed before the patient is referred to the SC, intraoperatively (care provided from the moment the patient is admitted to the operating room until his transfer to the Post-Anesthesia Care Unity - PACU) and postoperatively (from the moment he is admitted to the PACU until he is discharged). In these stages, the nurse must coordinate the team, promote training and continuing education programs, manage the SC and provide nursing care in a systematic, humanized and continuous manner.⁽²⁾

Nursing care must be objective, dynamic, individualized and human, focusing on the success of the intervention that aims to restore the patient's health, improve the quality of life or even diagnose diseases.⁽³⁾ It is an environment where socialization with the patient is often restricted, as their stay in the SC is quick, where most of the time the patient will be sedated or anesthetized.

In this context, considering that the patient is entering an environment that is not usually part of their knowledge and that they will undergo an invasive procedure that involves the risk of evolving to death, the nurse's attitude must be welcoming, promoting active listening, so that the professional can early identify some problems such as fear, anxiety and excessive concern.⁽⁴⁾ It is worth mentioning that most of the nursing work takes place in a bedside environment, which advocates the physical approximation of the professional with the client.

In 2020, the pandemic caused by CO-

VID-19 devastated the world and, specifically, in Brazil, the beginning of restrictive actions took place in March of the same year. Because it is an unknown virus, the SC professionals were unsure about the measures that would be taken to prevent the transmission of this infection in their work environment, since the operating rooms were identified as environments with a high potential for contamination and spread of the virus.⁽⁵⁾

With the beginning of community transmission of the coronavirus, the increase in mortality and morbidity of the population, the shortage of personal protective equipment (PPE), the high demand for direct assistance to people with flu syndromes and the need to resize personnel and material for intensive care units (ICU), new protocols had to be created to direct the population's safe health care in the various sectors, including the operating room.⁽⁵⁾

Given this context and the various competencies about the SC, considering the Covid-19 pandemic, what would be the duties of the nurse in this sector?

Therefore, this work aims to describe what has been scientifically written about the adequacy of nurse care in the surgical center in the context of the COVID-19 pandemic.

The proposal consists of expanding and presenting knowledge about the performances, activities and functions of the SC nurse during the period of the new coronavirus pandemic. It seeks to show one of the specializations in relation to the area of nursing, in favor of total scientific knowledge, in order to deepen knowledge in this area.

METHOD

This is an integrative literature review with a descriptive, exploratory and qualitative approach. This approach allows the researcher to investigate meanings, relationships and perceptions about a given object. In this study, the analysis of documents that had as object of study the nurse's duties in the perioperative period during the

COVID-19 pandemic was prioritized.

The integrative literature review is a study technique in which a range of research and its results will be sought, selected and evaluated.⁽⁶⁾ Original articles, manuals and review research were analyzed. For the research of articles, the Public Medline (access through the PUBMED portal), the Latin American and Caribbean Health Sciences Literature (LILACS), Scientific Electronic Library Online (SCIELO) and Medical Literature Analysis and Retrieval Online (MEDLINE), accessed through the Virtual Health Library (VHL) portal, following the following inclusion criteria: language in Portuguese and English, complete and original articles, available for free, published from 2020, the year the pandemic started, until January 2022. Exclusion criteria were: articles that did not talk about the nurse, but about the nursing category, articles that did not answer the guiding question of this article, theses and dissertations.

Data collection was carried out in January and February 2022. The review question was formulated by adopting the PICO strategy, in which: (P) Participants: nursing professionals; (I) Intervention: assistance in the perioperative period; (Co) Outcomes or Outcome: describe the nurse's assistance in the perioperative period during the Covid-19 pandemic. The Health Science Descriptors (DeCS) with the use of Boolean operators chosen for the search were: Centro Cirúrgico AND nurse AND Covid-19 OR Centro Cirúrgico AND nurse AND pandemic. And the descriptors in the Medical Subject Headings (MeSH) with the descriptors: Surgery Department, Nurses, COVID 19, Pandemics. Using the same strategy with Boolean operators.

First, reading was performed in the order of title, abstract, keywords. The listed studies that answered the research question were read in full and their references analyzed in search of additional studies. The publications selected as the study corpus were exported and analyzed using the EndNote®20 software, also used to identify possible duplicates. The selection followed the recommendations of the Preferred Re-

porting Items for Systematic reviews and MetaAnalyses (PRISMA) (figure 1).

In a specific instrument, after selecting and reading the titles and abstracts of the publications, the following data were recorded: title of the article, year of publication, name of the main author, state where the study was carried out, name of the journal and type of study, presented in a box in the results.

Subsequently, for the organization and analysis of the data, the Content Analysis Method was used, which according to Marconi and Lakatos⁽⁷⁾ this is defined by a set of techniques that, through systematic and objective procedures, are able to describe and compile the content of messages. Thus, the results were synthesized and the articles were organized into categories of analysis, according to the similarity of content.

RESULTS

In the last 2 years, 8 articles were produced that address the topic of the nurse's conduct in the surgical center during the COVID-19 pandemic. Most of these publications are from 2021 (5 articles) and are experience reports (6 articles). The researchers are from São Paulo (25%), Rio Grande do Sul (25%), Pernambuco, Goiás, Pará, Santa Catarina.

The journals that published the most on this topic were: Rev. SOBECC (4 articles), Research, Society and Development (2 articles), Rev. electronic nursing and Revista Ciência & Amp; Humanization of the Hospital de Clínicas de Passo Fundo, as described in the table below.

DISCUSSION

As categories of analysis, the following themes emerged: the establishment of specific operational protocols for performing surgeries during the COVID-19 pandemic (6 articles) and the need to readjust health professionals and the importance of nurses in this context (8 articles).

protocols for performing surgeries during the COVID-19 pandemic

When the pandemic was declared in March 2020, the government established a series of measures to contain the spread of the new coronavirus. One of these new measures was the cancellation and postponement of elective surgical procedures. Only urgent or emergency invasive procedures were performed. This created a new challenge for health professionals and institutions, as it created a gigantic demand for clients on the waiting list to perform their surgery. The postponement of treatments created a new challenge for the health system, which was not prepared to meet this great demand, with the damming of cases and an increase in complications.⁽⁸⁾

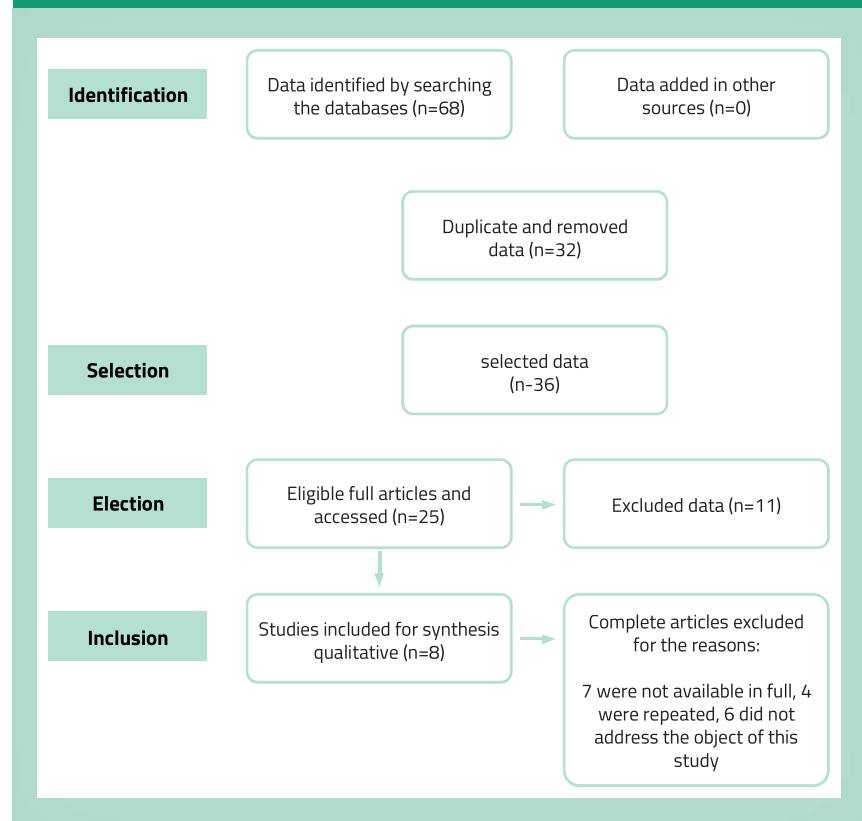
The return to procedures took place gradually, in compliance with government determinations, local resources and locore-

gional epidemiological data on the presence and burden of the disease. In order for there to be a return to the normal functioning of the SC, the institutions had to strictly adhere to the new health care protocols.

Between April and May 2020, a flow called Covid Free was created, which based on security protocols and exclusive and segregated flows within the health institution, aimed at the safe return of elective surgeries, with the minimum possibility of contamination of the patient.⁽⁹⁾

This protocol involved measures such as the creation of exclusive and isolated beds for the inpatient and intensive care unit, elevators for exclusive use, reinforcement of protocols and hygiene in the environments, testing of the patient by the PCR SARS-CoV 2 nasal swab method in 48 to 72 hours before the procedure, application of a specific consent form, direct admission to

Figure 1 - Flowchart of the Search and Selection Process of Studies-adapted from PRISMA. Salvador BA, 2022.



Source: Authors, 2022

The establishment of specific operational

the bed (without going through the reception), screening with temperature measurement and questionnaire of symptoms in the last 24 hours of all employees, doctors and third parties who access the hospital, blocking of visitors, use of a disposable surgical mask on the patient, use of an N95 mask by the care team involved in the surgical procedure, use of filters in laparoscopic surgeries due to the risk of aerosol dispersion in the dispersion of carbon dioxide used in pneumoperitoneum.⁽⁸⁾

As the resumption took place, other challenges emerged, such as high demand from laboratories to perform the PCR test, which caused a delay in the dissemination of results and postponement of procedures, increase in the rate of absenteeism of professionals due to contamination in the environment other than work, phase regression of the state plan, with new restrictions and isolation measures, which generated feelings of fear and insecurity in people when returning to the hospital.⁽⁸⁾

According to the authors, the arrival of the immunization process against SARS-CoV-2 brought hope, security and increased expectation to the population to return to normal activities. Elective surgical procedures were thus able to gradually return to the usual frequency of the scenario before the pandemic. At this moment, the systematization of flows during the preoperative period continued to require the presentation of RT-PCR tests, as well as proof of the vaccination schedule, in some specific situations.⁽⁸⁾

Corroborating this information, GOMES et al.⁽⁵⁾ also state that there was adaptation of care protocols associated with the routine flow of patients in the operating room and assistance in the operating room in order to better serve patients and reduce the risk of contamination of other patients and professionals. Queiroz et al.⁽¹⁰⁾ still state that the implementation of the standard operating protocol (SOP), although challenging, was essential for the continuity of safer surgical care in the pandemic context for patients, health workers and the institution.

Table: Characterization of the articles found, Salvador-BA, 2022.

| Article name | Authors/Year | Journal / FU of the study | Method |
|--|--------------------------------|---|-------------------------------|
| Preparation of a surgical center in Northeast Brazil for surgeries during the COVID-19 pandemic (Preparação de um centro cirúrgico do Nordeste do Brasil para cirurgias durante a pandemia da COVID-19) | GOMES et al., 2021 | Rev. SOBECC/ PE | Experience report |
| Restructuring work in the operating room with the Covid-19 pandemic (Reestruturando o trabalho no bloco cirúrgico com a pandemia da Covid-19) | TAKEITI, OLIVEIRA & CRUZ, 2021 | Rev. SOBECC/ SP | Experience report |
| Biosafety for intraoperative care for suspected or confirmed COVID-19 patients: experience report (Biossegurança para a assistência transoperatória a pacientes suspeitos ou confirmados da COVID-19: relato de experiência) | Queiroz et al, 2021. | Rev. eletrônica enferm/ GO | Experience report |
| Surgical center: recommendations for the care of patients with suspected or carriers of COVID-19. (Centro cirúrgico: recomendações para o atendimento de pacientes com suspeita ou portadores de COVID-19.) | Trevilato et al, 2020. | Rev. SOBECC/ RGS | Literature review |
| Training and qualification of nursing professionals in the operating room to care for patients infected with SARS-CoV-2 coronavirus in external areas (Treinamento e qualificação dos profissionais de enfermagem do bloco cirúrgico para atendimento de pacientes infectados com coronavírus SARS-CoV-2 em áreas externas) | Sousa; Acuña, 2020 | Rev. SOBECC, SP | Experience report |
| The role of nursing in a COVID-19 surgical/obstetric center in care adaptations: experience report (O protagonismo da enfermagem em um centro cirúrgico/obstétrico COVID-19 nas adaptações assistenciais: relato de experiência) | Nascimento et al, 2021 | Pesquisa, Sociedade e Desenvolvimento, SC | Experience report |
| The nurse's role in preventing SARS-CoV2 infections in the operating room during the COVID-19 pandemic (O papel do enfermeiro na prevenção de infecções por SARS-CoV2 na sala de cirurgia durante a pandemia de COVID-19) | Parente et al., 2021 | Pesquisa, Sociedade e Desenvolvimento, PA | Integrative literature review |
| Nursing management in the surgical center of a philanthropic hospital, in the face of the COVID-19 pandemic (Gestão de enfermagem no centro cirúrgico em hospital filantrópico, frente à pandemia COVID-19) | MARTINS et al, 2020. | Revista Ciência & RGS | Experience report |

Fonte: (autores, 2022).

The need for readjustment of health professionals and the importance of nurses in this context

Another category of analysis that emerged in this research was the need for profes-

sional readjustment to this new reality and the importance of the nurse in this adaptation.

The recommendations suggested by the health services guide nurses to offer the most appropriate care to each patient, ba-

sed on the scientific evidence recommended by reference institutions, in order to promote safe and quality care for patients and safety for professionals. ⁽¹¹⁾

Sousa and Acuña ⁽¹²⁾ bring the view of nurses in the area who have experienced different feelings such as fear of being contaminated or transmitting the virus to their family and friends, need to help the population with their service, absence of patients in his sector and uncertainty of the time that all this would take. In addition, there was a need for SC nurses to be transferred to the Intensive Care Units, bringing with it the feeling of uncertainty when entering a new sector, a new routine, a new team, new attributions and developing another look at the critically ill patient.

It is worth mentioning that the nurse has a fundamental role in the entire process of structuring and directing patient care, thus highlighting potential as a protagonist in the health care process.

The nurse's role in this context is fundamental, as it is one of the professions in which there is greater contact with bedside

patients and, in this sense, It is important that they take specific actions to prevent the spread of microorganisms in the hospital, especially in the center during the COVID-19 pandemic. ⁽¹³⁻¹⁵⁾ Thus, the management of good health practices, such as hand hygiene, infection control, use of aseptic techniques, favors the Patient Safety culture and control of Health-Related Infections.

CONCLUSION

In the last 2 years, 8 articles were produced that address the topic of the nurse's conduct in the surgical center during the COVID-19 pandemic. Most of these publications are from 2021 and are experience reports. As categories of analysis, the following themes emerged: the establishment of specific operational protocols for performing surgeries during the covid-19 pandemic and the need to readjust health professionals and the importance of nurses in this context.

There was a need to readjust the care provided to surgical patients in order to

avoid contamination of users and professionals with the new coronavirus. At first, elective surgeries had to be suspended due to high demand in the covid ICU. The new approaches aimed at the safety of the people involved in the perioperative period, preventing the development of lesions, promoting the patient's analgesic comfort, promoting contact with the family, observing and identifying in advance the cases of hemodynamic instability.

The pandemic has not yet ended and it is still necessary to promote continuing education activities in order to train the nursing professionals who work in the SC, responsible for managing the flow of patients, so that care occurs in the safest possible way.

The limitation of this production is characterized by the small number of articles that were found focusing on the theme and the lack of original articles and meta-analyses. New publications related to the theme of the nurse's role in SC, in times of COVID-19, are suggested, in order to contribute to society. 🌱

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