Effects on nursing actions in the covid-19 pandemic scenario

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INTRODUCTION

The pandemic of the new coronavirus (COVID-19), caused by the SARS-CoV-2 virus, has brought significant changes in the provision of care in health services. At the hospital level, there was a need for an increase in the number of beds, especially in the intensive care unit, where acute cases of COVID-19 are monitored. In primary care, there was a need to divide services into four points: health surveillance actions in the territories, care for users affected by COVID, support for vulnerable groups and continuity of actions that were already characteristic of Primary Health Care (APS). 1

In the year chosen to be the year of nursing, as a way of promoting greater appreciation of the category, these professionals experienced an uncertain and chaotic health scenario determined by COVID-19. This circumstance allowed us to recall the essential principles of care initiated by Florence Nightingale about 200 years ago. This class that represents about 59% of all health professionals in the world (about 28 million) and who were on the front lines against COVID-19, stood out in the pandemic, showing the world its skills and abilities to adapt and react quickly and efficiently in the face of crises. 2-4

The nursing work process was highlighted as fundamental during the new coronavirus pandemic. The nurse, through his clinical and holistic analysis, offers unique care to the patient, involving his family and the community. In this way, he is able to diagnose problems and propose necessary interventions to maintain the patient’s quality of life, community safety, as well as the prevention of health complications. 5

In the COVID-19 scenario, this nursing potential raises discussions about the urgency of restructuring health services, starting with Primary Health Care, which is the patient’s gateway to the Unified Health System. 6 This is because, regardless of the pandemic, the world has always faced chronic problems in public health that could be tackled more incisively if there were greater investments in expanding public health systems and continuing nursing training.

From the changes in service flows and routines, nurses suffered from the high demand of work with patients affected by COVID-19. A study highlighted that, despite the technical competence, skill and emotional control over the practice, the nursing team suffered physical exhaustion given the complexity and increase in cases of patients with COVID-19. 6 In turn, it was necessary to overcome the negative impacts, even without the support of the managers themselves to restore strength, reorganize thoughts and recover the emotional to face an unknown disease. This action helped to reveal working conditions, often precarious, illness and the honorable performance of professionals who lost their lives facing the pandemic. 3,7

This highlight was also evidenced in a documentary study that portrayed the situation of nursing in Brazil by revealing the satisfaction of the national population with the services provided by nursing, considered essential for coping with a health crisis. 4 However, it is known that despite all the recognition, this is still insufficient to preserve the physical, emotional and intellectual integrity of these professionals.
It is noteworthy that, for the first time, the world noticed other nursing actions inherent to health, such as the management of people, materials, referral flows and decision-making at individual and collective levels. 4,8

Frontline professionals in the fight against COVID-19 were impacted by several situations, which affected not only the physical dimension, but mainly their mental health. For Duarte et al., 9 the main mental disorders were depression, anxiety, insomnia and anguish, factors that contributed to the removal of several professionals from their jobs, causing a shortage of manpower. Consequently, the feeling of guilt, frustration, anger and sadness emerged, however, more than that, it caused an overload of work for others and a deficit in the effectiveness of the care provided. 9

It is clear that the pandemic has increased the number of patients, and frontline professionals, because they are directly linked to the care of cases of the new coronavirus, were overloaded with activities, responsibilities and susceptible to psychic, physical and emotional wear. Given the above, this study aimed to describe the repercussions of the COVID-19 pandemic on nursing actions.

METHODS

Integrative literature review to investigate, evaluate and synthesize available research results in order to interpret information and related factors from a given population. 10 The structuring process followed the steps guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist 11, being: the establishment of the guiding question; data search; determination of criteria and extraction of information; evaluation and interpretation of the results followed by the presentation of the summary review of the collected data. From these steps, the present study was guided by the guiding question: What repercussions did the COVID-19 pandemic bring to the work process of nursing actions?

The search for this investigation took place between the months of June and September 2021 and was carried out in the MEDLINE database, Latin American and Caribbean Literature on Health Sciences (LILACS), Nursing Database (BDENF) and Coeleciona SUS. Descriptors in Health Sciences (DeCS) were used in Portuguese and English, combined with the Boolean operator AND: Enfermagem/Nursing, Cuidados de Enfermagem/Nursing Care, Condições de Trabalho/Working Condition, Equipe de Enfermagem/Nursing Team, COVID-19/COVID-19, Pandemias/Pandemics. Em seguida, agrupamos em quatro estratégias de busca: i) (Enfermagem) AND (Cuidados de Enfermagem) AND (Condições de Trabalho) AND (Equipe de Enfermagem) AND (COVID-19) AND (Pandemias); ii) (Enfermagem) AND (Cuidados de Enfermagem) AND (COVID-19) AND (Pandemias); iii) (Condições de Trabalho) AND (Equipe de Enfermagem) AND (COVID-19) AND (Pandemias); iv) (Equipe de Enfermagem) AND (Cuidados de Enfermagem) AND (COVID-19) AND (Pandemias).

The inclusion criteria were original articles, in Portuguese and English, with full texts, published between the years 2020 and 2021, when the new coronavirus pandemic occurred. The articles chosen needed to describe the repercussions of nursing actions in the face of the COVID-19 pandemic, a scenario that brought changes in the nursing work process. For studies that were not available in full, exclusion was chosen due to the difficulty of accessing articles outside the university environment, since this review was carried out in a home environment, in a remote period of classes caused by the SARS-CoV-2 pandemic. Exclusion criteria were duplicate publications in databases and review-type studies and experience reports.

Subsequently, the articles were submitted to evaluation by the Rayyan QCRL.
software to identify and exclude duplicates. The next step consisted of reading the titles, objectives and abstracts to select those that would meet the inclusion criteria. Three authors, independently, were responsible for this step. A fourth author was asked to assess the points of disagreement in this first screening of articles.

The articles selected based on the agreement of all authors and reviewers were read in full to extract variables of interest that answer the problem question of this study, that is, those that did not describe the repercussions of the COVID-19 pandemic for the nursing work process.

Figure 1 shows the flowchart in which the steps to reach the final sample were outlined. The synthesis stage was developed by the main author and the extraction of data from the final sample was organized in an Excel spreadsheet created by the authors with the variables: a) title, objective, methodological design, country where the study was carried out, results and evidence level of the articles (Chart 1).

To give greater rigor to the methodological analysis of the evaluation of the studies, four levels of evidence were adopted, suggested by the Collaborating Center of the Joanna Briggs Institute. These are characterized hierarchically, depending on the research design. Therefore, the final sample was evaluated as follows: level I – evidence from a systematic review of randomized controlled clinical trials; level II – evidence based on a randomized controlled clinical trial; level III,1 – evidence obtained through controlled clinical trials, without randomization; level III,2 – evidence acquired from well-designed cohort or case-control studies; level III,3 – evidence based on multiple time series, with or without intervention and dramatic results in uncontrolled experiments and, finally, level IV – opinions of authorities based on clinical criteria, descriptive studies or expert committee reports.

Finally, the last step consisted of the analysis of the variables analyzed: description of the repercussions of COVID-19 for the nursing work process and the element(s) that allowed the new work process, organized in Table 2.

RESULTS

Based on the steps performed and guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist, the final sample, Table 1, comprised five articles, two (40.0%) published in 2020 and three (60.0%) published in 2021.

Regarding the methodological design, one study (20.0%) was found that used the descriptive cross-sectional design method, one (20.0%) that used a descriptive study, one (20.0%) reflective essay, one (20.0%) case study and one (20%) convergent of mixed methods (quantitative and qualitative). Thus, the corresponding levels of evidence were III and IV.

Regarding the variables analyzed to investigate the repercussions that the COVID-19 pandemic brought to the nursing work process, the studies had positive repercussions, such as the need for nursing leaders to reassess their workforce and use the skills of existing professionals to quickly meet the demand of critically ill patients by COVID-19. 13,14

The intensification of teamwork, the role of nurses as a result of their effective and incisive action against the new coronavirus and the use of the Omaha system to streamline care and implement a management plan were also positive actions evidenced. 15,16

However, negative repercussions such as reduced quality of professional life, increased anguish due to the lack of support from executive leaders and the need to assume functions outside their regular area of prac-

| Table 1 - Synthesis of the final sample according to the title, objective, method and results of the articles in the final sample, Divinopolis, MG, Brazil, 2021 |
|----------------------------------------|---------------------------------|-------------------------------|
| **Objectives**                       | **Method**                      | **Results**                   |
| A case study of a collaborative allied health and nursing crisis response (2020) 13 | Assess how an interprofessional workforce from a wider organization could be supported to work in critical care as part of a crisis response. | Case study | The nursing workforce responded to the needs of patients in critical care as part of a crisis response. |
| An illumination of the ICN’s core competencies in disaster nursing version 2.0: Advanced nursing response to COVID-19 outbreak in China (2021) 14 | Report on the actions and incident management of advanced practice nurses on a disaster operations team that were deployed in response to the COVID-19 outbreak | Descriptive study | The advanced nurses’ response approach to COVID-19 covered preparedness and planning, communication, incident management systems, safety and security, assessment and intervention. |
Nurse work in the context of the COVID-19 pandemic  
Reflect on the work experienced by nurses in the face of the COVID-19 pandemic experienced in a public hospital in the state of Rio Grande do Norte  
Reflective essay  
He highlighted the effective role of nursing in the organization of health services to face COVID-19 and the exercise of nursing care management in the midst of stress, psychological suffering, wear and tear on nurses’ performance, little professional recognition and deficits in material and personnel in the services.

Nursing care management based on the Omaha system for patients diagnosed with COVID-19: An electronic health record study (2021)  
Identify the clinical characteristics of patients diagnosed with COVID-19 and existing nursing issues based on the Omaha System, and establish a nursing care management plan  
Descriptive transversal  
By using the Omaha System, it was possible to quickly observe the problems of the patients and obtain significant improvement in the scores of knowledge, behavior and status of the patients before and after the intervention, allowing to diagnose, plan and implement appropriate interventions for COVID-19 patients.

Understand the impact of occupational stressors on the quality of working life and moral distress of nurses and other healthcare professionals during the COVID-19 pandemic  
Convergent mixed methods (quantitative and qualitative)  
Perceived lack of support from executive leadership, access to personal protective equipment, and constant change of guidelines led to a decrease in the quality of working life and an increase in moral distress.

Source: The Authors, 2021

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tice to support each other in the clinical environment were also listed. These points deserve special attention, as the reflection on the restructuring of public health policies emerges, as it is evidence that can be the scenario of other health services with nursing professionals. 17

**DISCUSSION**

In March 2020, the COVID-19 pandemic was declared and the need for trained health professionals to face an unknown disease was discussed. The need to think about the nursing work in the face of infection prevention and control became necessary, since its direct, continuous and prolonged care with infected patients configured the core of health systems in the world. 18

With the growth of cases, the work of the nursing team intensified, making it necessary for nursing leaders to reassess their workforce and add the skills of professionals to meet the high demand of patients with COVID-19. It is believed that this combination of skills and work intensification allowed nurses to share interventions and achieve faster mobilization in the face of cases, in addition to improving team communication and collaboration among themselves. 13,19

It is known that the care activity is of paramount importance for the well-being of society and specific knowledge and different professional actions are capable of pro-

<table>
<thead>
<tr>
<th>Title</th>
<th>Description of the repercussion(s) of COVID-19 for the nursing work process</th>
<th>Element(s) that allowed the new nursing work process</th>
</tr>
</thead>
<tbody>
<tr>
<td>A case study of a collaborative allied health and nursing crisis response (2020)</td>
<td>Nursing leaders needed to overhaul their workforce and blend the skills of existing professionals to quickly serve critically ill COVID-19 patients. Intensified teamwork.</td>
<td>Organizational reform, improved communication with faster feedback on work shifts and responsive leadership.</td>
</tr>
<tr>
<td>An Illumination of the ICN score competencies in disaster nursing version 2.0: Advanced Nursing response to COVID-19 outbreak in China (2021)</td>
<td>Intensified teamwork.</td>
<td>Improved communication between manager and team and between teams</td>
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<tr>
<td>Nurse work in the context of the COVID-19 pandemic (2021)</td>
<td>Protagonism of nurses for their effective and incisive action against the new coronavirus in an environment often lacking structural, material, personnel, physical and emotional exhaustion and low pay</td>
<td>Strengthening of interdisciplinary work that collaborates to overcome the crisis caused by the pandemic</td>
</tr>
<tr>
<td>Nursing care management based on the Omaha system for in patients diagnosed with COVID-19: Na electronic health record study (2021)</td>
<td>Used the Omaha System method to expedite calls and implement a management plan. This increased the quality of care, as it facilitated the treatment and recovery process.</td>
<td>Establishing effective guidelines for diagnosing problems, planning and implementing interventions for COVID-19 patients</td>
</tr>
<tr>
<td>Leadership, professional quality of life and moral distress during COVID-19: A mixed-methods approach (2021)</td>
<td>Decreased quality of working life, increased distress among professionals due to lack of support from executive leaders and having to take on roles outside their regular area of practice to support one another in the clinical environment</td>
<td>Improved inter and intradisciplinary collaboration, and aroused a new sense of respect for other members of the care team</td>
</tr>
</tbody>
</table>

Source: The Authors, 2021

viding prevention, promotion and health treatment. However, after the beginning of the pandemic, in addition to care actions for sick people, there was an increase in procedures, patient admission and prolonged working hours. Nevertheless, from the collaboration of nursing professionals between the teams, it was noticed the strengthening of nursing practices, making care agile and effective in the face of the complexity of the clinical conditions caused by COVID-19. 14,20

It is clear that problems such as lack of supplies, fewer professionals in the team, low pay and lack of appreciation are always current challenges for nursing, and, in the context of the COVID-19 pandemic, this problem has intensified even more. 21-23 It is noteworthy that the nurse, through the Systematization of Nursing Care, provides not only direct care to the patient, but also deals with the management of the environment, personnel management, care and support for the teams. 24 To manage the current health crisis, the Federal Nursing Council (COFEN), 25 prepared guidelines for the nursing service in 2020. They contain guidelines on care in suspected and confirmed cases of COVID-19, readjusting nursing care in the face of the crisis and ensuring the maximum possible safety for the professional. 25

In addition, the mental suffering caused as a result of the pandemic is a factor that must be considered. The insecurity caused due to the lack of personal protective equipment (PPE), the fear of contaminating oneself with the disease and transmitting it to other people, such as their family members and social isolation, are factors that increase insecurity and cause mental problems and, consequently, physical. 26

The pandemic also highlighted and presented to the world population the complexity and need for nursing care for the growing demands in health crisis situations. This is because there is a common sense that care is restricted to hygiene and medication, so countless people have learned and recognized the science, competence and all clinical skills that integrate the systematic actions of nursing. It was also possible to perceive the precariousness of the structures directed to the performance of these professionals, since, in most institutions, essential and indispensable supplies and PPE for patient care were lacking. This made the teams unfold themselves to work with the available resources and, even so, the nursing team overcame this challenge by showing the execution of care with quality and efficiency to the patient. 5

Added to all this, it is important to highlight the physical and mental exhaustion of these professionals that caused a public health crisis, parallel to the pandemic. At the same time that the number of hospitalized patients increased, the cases of sick leave, death and the high risk of contamination by COVID increased. 18 Generalized anxiety disorder, chronic stress and worker exhaustion increased in the face of work overload. 27

The pandemic also brought sleep disturbance, irritability, inability to relax, stress, difficulty concentrating, sadness, apathy and a negative feeling of the future for nursing professionals, in addition to experiencing daily weakness at work. 28-30

Faced with this scenario, although so many challenges have threatened the health, life and psychological integrity of nursing professionals, it is noteworthy that the pandemic brought knowledge and experiences that could promote new care actions to respond immediately to health needs at a time of global health crisis. 15,31
The pandemic has also led to international recognition for nursing as an essential health care profession. However, this recognition, especially in Brazil, was not enough to lead the authorities to offer safer working conditions and improve remuneration.

The role of nursing during the COVID-19 pandemic can be seen in all areas of nursing practice. A study showed the role of nurse managers, analyzing general competencies in managerial practice, as follows: communication, decision-making, leadership, administration and management, health care and continuing education, so these actions are essential for the restructuring of the service in the face of the pandemic.

Teamwork and interprofessional communication were also highlighted during this pandemic, as health systems were faced with a greater demand than their services could offer and, for this, relied on their collaboration to organize and restructure health care in a safer and more efficient manner. In addition to promoting the training of new hires and professionals already working, it was also essential that the link and communication between them were aligned so that there were no discrepancies in the information passed on to the population.

According to the literature, the use of technologies and protocols during the pandemic has increased, bringing an immediate and more effective response to health crisis situations. This is confirmed in the study by Souza et al., 26, which affirms the importance of developing new protocols that supported the performance of Nursing, basing them on scientific evidence, clarifying doubts and consolidating the team's knowledge. With regard to technologies, Duarte et al. 5 state that they directly collaborated to combat the pandemic, whether in the nursing teleconsultation process, or even in the dissemination of information on prevention, care, guidelines, clarifications, among others.

This research has as limitations the fact that it considers the results of publications in a delimited period, that is, it does not include studies published later that could bring new developments to the investigation. The reflections and observations open the perspective for investments in nursing research to improve clinical care protocols in emergency situations, pandemics and local health crises. In addition, it highlights the importance of future studies investigating how nursing work differs in different states, regions and countries to characterize the demands of these professionals and improve working conditions, remuneration and increase their physical and emotional safety.

CONCLUSION

The repercussions of nursing actions in the COVID-19 pandemic scenario allowed for discussions to implement, restructure and offer better working conditions, health and well-being to nursing workers. In addition to these, remuneration, emotional support, continued qualification, investment in technologies and research are necessary elements to minimize the negative impacts of a pandemic, as well as any other health crisis situation.

REFERENCES


9 Duarte MLC, Silva DG, Bagatini MMC. Enfermagem e saúde mental: uma reflexão em meio à pandemia de coronavírus. Rev
REFERENCES

Gaúcha Enferm [Internet]. 2020 [citado 19 nov 2021];42(especial2020140. Disponível em: https://www.scielo.br/vrgenf/article/MnRHiwvqgg3fR1H7q3PSLR7H/abstract/pdf&lang=pt

34 Tedecossi SPC, Ferreira JC, Oliveira RM, Santos RP, Carvalho 2022; (12) ESPECIAL COVID • saúdecoletiva 9642
REFERENCES
