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# Reflection on the working conditions of nursing professionals in the face of the COVID-19 pandemic

Reflexão sobre as condições de trabalho dos profissionais de enfermagem frente à pandemia da

COVID-19

Reflexión sobre las condiciones laborales de los profesionales de enfermería ante la pandemia de COVID-19

Vanessa Augusto Bardaquim<sup>1</sup>, Sérgio Valverde Marques dos Santos<sup>2</sup>, Ernandes Gonçalves Dias<sup>1</sup>, Luiz Almeida da Silva<sup>3</sup>, Rita de Cássia de Marchi Barcellos Dalri<sup>1</sup>, Maria Lucia do Carmo Cruz Robazzi<sup>1</sup>

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<sup>1</sup> University of São Paulo/USP, College of Nursing of Ribeirão Preto, Department of Nursing, Ribeirão Preto, São Paulo, Brazil.

<sup>2</sup> State University of Minas Gerais, Department of Nursing, Passos, Minas Gerais, Brazil.

<sup>3</sup> Federal University of Catalão, Department of Nursing, Catalão, Goiás, Brazil.

#### **ABSTRACT**

Introduction: The World Health Organization (WHO) was notified of the presence of a new virus, highly contagious, by China in 2019. In 2020, WHO declared a Public Health emergency and a new pandemic. The strain of this new virus has become known as coronavirus 2, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and COVID-19. Outline: This article is a theoretical-reflective, descriptive, narrative analysis based on two guiding categories to reflect on the working and health conditions of nursing professionals in coping with COVID-19 in Brazil. Results: two categories were formed "the novel coronavirus and COVID-19: situation and challenges posed" and "the working conditions and health of nursing professionals in coping with COVID-19". Implications: It was understood that the COVID-19 pandemic is capable of generating many uncertainties in the professional environment, especially regarding the transmissibility of the infectious viral particles and the protection of the professional; therefore, special attention is needed for nursing workers who are exposed to the care of infected patients, sometimes subjected to unhealthy working conditions. Managers are recommended to intensify efforts to make sure that these workers are ensured the necessary conditions to carry out their activities safely.

# DESCRIPTORS

Coronavirus Infections; SARS Virus; Nursing Services; Occupational Health.

Corresponding author: Vanessa Augusto Bardaquim Address: Rua Prof. Hélio Lourenço, 3900, Vila Monte Alegre CEP: 14040-902 – Ribeirão Preto, São Paulo, Brazil Telephone: +55 (16) 3315-4321 E-mail: va.bardaquim@gmail.com

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# INTRODUCTION

The World Health Organization (WHO) was notified of the presence of a new, highly contagious virus, in December 2019, by China, following the outbreak of a new disease that occurred in the city of Wuhan. In late January 2020, WHO declared an international Public Health emergency, characterizing it on March 11, 2020 as a pandemic. This new strain of virus has officially become known as coronavirus 2, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and also as COVID-19.<sup>1-3</sup>

It is known that the new SARS-CoV-2 virus was isolated from asymptomatic individuals and infected patients two weeks after the symptoms ceased. Substantial morbidity and socioeconomic impact have required drastic measures on all continents, including blockades, social isolation, and border closures in many countries.<sup>4</sup>

However, essential workers continued their work, exposing themselves to the risk of contracting the disease and/or becoming potential transmitters. Among these workers are nursing professionals who are at the forefront of combating the novel coronavirus.

As a result, the nursing team has played a fundamental role in combating the pandemic, not only because of its technical capacity, but also because it is the largest professional category active in health services. If these professionals fall ill, it will have a negative impact on the general population, both because of the risk of spreading the disease and because of the increased burden on health services.<sup>5</sup>

The survey of cases of this disease portrays the impact of infections among nurses, technicians, and assistants. In China, a total of 1,716 health workers were infected and five died from COVID-19.<sup>1</sup>

This fact portrays the importance of maintaining preventive care for the novel coronavirus by all health professionals and, especially, the nursing team; these workers are always at the forefront in combating this disease, often exceeding the limits of personal care to maintain and restore people's health. Therefore, if these workers fall ill, it might represent a collapse in the coping with COVID-19, due to the lack of professionals to work in health institutions.

With no intention of wanting to minimize occupational risks in other fields of work in Nursing, the hospital sector is quite worrying, it is also one of the nurses' work areas considered to be more dangerous to workers' health, since it is related to exposure to a large number of occupational diseases and work accidents.<sup>6</sup>

In this way, in view of the above and in view of the limitation of studies related to this theme, the need to promote more knowledge about the COVID-19 pandemic and Brazilian nursing professionals is justified.

Thus, this study aimed to reflect on the working conditions and health of nursing professionals in coping with COVID-19 in Brazil. To this end, two guiding categories were developed to support the study's reflection: "the novel coronavirus and COVID-19: scenario and situation posed", and "the working conditions and health of nursing professionals in coping with COVID-19". The reflection is built from a theoretical-reflective, descriptive, narrative analysis, in order to portray the current situation of the working conditions of the nursing team in Brazil.

# THE NOVEL CORONAVIRUS AND COVID-19: SITUATION AND CHALLENGES POSED

SARS-COV-2 virus and COVID-19 are spreading globally and rapidly.<sup>4,7</sup> Coronavirus is a type of virus where its surface resembles the shape of a crown, it is a complex pathogen due to the ability to infect multiple hosts and causes different complications, despite the common association with acute respiratory infections in humans.<sup>8</sup>

COVID-19 is highly contagious, WHO has declared it a global Public Health emergency.<sup>9</sup> SARS-COV-2 virus and COVID-19 disease have become a pandemic.<sup>7</sup> This virus is recent, and what is known about its origin is that at the end of 2019, an unidentified case of pneumonia was reported in the People's Republic of China. Its clinical characteristics were very similar to those of viral pneumonias. After analysis of respiratory samples, experts declared that pneumonia was caused by a novel coronavirus.<sup>8</sup>

The WHO has officially named the disease COVID-19. The International Virus Taxonomy Committee (ICTV) has named the virus coronavirus 2, the provider of SARS-CoV-2. This virus belongs to B-coronavirus, a large class of viruses prevalent in nature, similar to other viruses, has many potential natural hosts, and this poses great challenges in terms of prevention and treatment compared to Severe Acute Respiratory Syndrome (SARS) and to Middle East Respiratory Syndrome (MERS), viral disease first reported in Saudi Arabia in 2012 and has spread to several countries worldwide due to increased transmission and infection.9 It is estimated that two to three people may be infected from a patient infected with the novel coronavirus.<sup>4</sup>

In the SARS coronavirus, viral ribonucleic acid (RNA) is detectable in the respiratory secretions and feces of some patients after the onset of the disease for more than a month, but the live virus could not be detected by the culture after a week; therefore, there is an inability to differentiate between infectious and non-infectious viruses (killed or neutralized by antibodies).<sup>10</sup>

Moreover, the new infection has significant implications for cardiac patients; if the person acquires COVID-19 and has а pre-existing cardiovascular disease (CVD), they have an increased risk of serious illness and death; the infection has been associated with multiple direct and indirect complications, cardiovascular including acute myocardial injury, myocarditis, arrhythmias, and venous thromboembolism, it should be added that therapies under investigation for COVID-19 may have cardiovascular side effects; in addition, the response to COVID-19 may compromise the rapid screening of non-COVID-19 patients with cardiovascular diseases.<sup>11</sup>

In addition to cardiovascular disease, people with digestive or respiratory diseases were also considered to be more likely to become infected with the coronavirus. The reason for this greater probability is that these diseases cause the immune system to weaken and find it difficult to fight the infection.<sup>12</sup>

Cancer patients are considered a highly vulnerable group in the current COVID-19 pandemic, their conditions are deteriorated, and bad results happen when they acquire it. The recommendation is that those receiving anti-tumor treatments should make a rigorous screening for COVID-19 infection and avoid treatments that cause immunosuppression in the event of coinfection caused by the SARS virus.<sup>13</sup>

Also, in view of its form of contagion, many people may be subject to exposure and infection by the novel coronavirus and, possibly, individual immunity can positively or negatively influence the infection caused by it. Transmission of the novel coronavirus usually occurs through air or through personal contact with contaminated secretions, such as saliva droplets, sneezing, coughing, phlegm, close personal contact, such as touching or handshaking, contact with contaminated objects or surfaces, followed by contact with the mouth, nose, or eyes.<sup>14-16</sup>

The incubation period for SARS-CoV-2 infection is 1 to 14 days, usually 3 to 7 days. Some infected are asymptomatic while others have clinical manifestations that include fever, fatigue, and dry cough. Some patients have symptoms of the upper respiratory tract, such as nasal obstruction, runny nose, and sore throat, and some have gastrointestinal symptoms, such as abdominal discomfort, nausea, vomiting, stomachache, and diarrhea. From the current situation, it is known that pediatric cases mostly have relatively mild clinical manifestations, without fever or pneumonia and have a good prognosis. Most children recover within 1 to 2 weeks,

but some pediatric cases can progress to lessening the respiratory tract infection.<sup>17</sup>

However, health care is largely based on protocols and models from rich countries; however, an interesting situation that has been observed is the fact that COVID-19 shows that countries with better technologies and greater capacity do not always have better responses from the health service in facing the pandemic. The USA and United Kingdom governments provided the worst responses to the pandemic; did not have the appropriate number of rapid tests, as strongly recommended by the WHO, along with difficulties in the treatment and tracking of contacts. On the other hand, Asian countries have provided quick and effective responses, in part, thanks to their recent experience with outbreaks of the Middle East respiratory syndrome in 2015 and the severe epidemic of acute respiratory syndrome from 2002-2003. African countries, despite limited resources, have also adopted measures that are worth imitating, provided reliable information and diagnoses made through rapid tests, that is, global health will never be the same after COVID-19, as it belied the notion that knowledge is concentrated by legacy powers and historically rich states.<sup>18</sup>

Currently, it is identified that in any country, health professionals do not have adequate access to Personal Protective Equipment (PPE), nor are there enough hospital beds to accommodate the number of patients;<sup>18</sup> thus, care provision can place health professionals in a position of vulnerability as they become hosts and/or vectors of this viral transmission.<sup>4</sup> As for the use of PPE, it is necessary that health professionals keep themselves protected using the equipment as indicated by the national security agencies, as well as adopt other forms of prevention available in the service.<sup>19</sup>

There is still no proven effective therapy against the virus, and the impact on other diseases is also uncertain, as, for example, in relation to the distinct syndromes of hereditary arrhythmia. An arrhythmogenic effect of COVID-19 can be expected, and this may be important for patients at increased risk for cardiac arrhythmias, secondary to acquired conditions or comorbidities or consequent to inherited syndromes; tachycardias in the COVID-19 pandemic situation can be particularly challenging.<sup>7</sup>

Presently, in terms of treatment, the SARS-CoV-2 vaccine is still in development, and there is no specific drug. Treatment is mainly for symptomatic and supportive. Even keeping the internal environment stable and the patient's respiratory rate, with oxygen therapy according to the need. Some antiviral drugs (Interferon) can be effective, if combined with a bacterial infection, patients can be treated with appropriate antibiotics after medical evaluation.<sup>17</sup>

Faced with this situation, COVID-19 is characterized as a worldwide public health problem and of great importance to pay attention to the protection of health workers, especially those who work on the front lines, such as nursing.

# WORKING CONDITIONS AND HEALTH FOR NURSING PROFESSIONALS IN COPING WITH COVID-19

During pandemics, the population faces a stop or deceleration of daily activities, and people are encouraged to implement social distancing, in order to reduce interactions among them and, consequently, the possibility of new infections.<sup>15</sup> However, many professionals need to work to ensure, exactly, the survival of those who are confined or sick.

Various workers provide care to patients with COVID-19; Primary Care professionals such as nurses, nursing technicians and doctors are in direct contact with patients and their body fluids and are more vulnerable to infection.<sup>15</sup> However, it was unanimous in the literature consulted that, in many situations, workers were unprepared and, in addition, did not perform their tasks with enough and proper equipment.<sup>18</sup>

In the 1980s, with the HIV / AIDS pandemic, hospital institutions became more concerned with the

health of their workers.<sup>20</sup> And with this situation, recommendations were made to improve the health and safety of these professionals. Many institutions have adopted standard precautions as protective measures for workers, such as wearing PPE and hand washing.<sup>21</sup>

Workers who provide care to infected patients are at high risk of being infected and must be adequately protected and trained, as in addition to assisting such patients, they also collect and dispose of their body waste.<sup>10</sup> In this sense, it is important that such workers feel prepared both technically and emotionally to face the pandemic that arrived abruptly without the services and workers being prepared.

Another aspect to be considered is that there is a fear of self-inoculation, as well as a concern about the possibility of spreading the virus to their families, friends, or colleagues, and this can lead these workers to isolate their own nuclear family, to change routine and restriction of your social support network.<sup>15</sup>

Worldwide, 4,170,424 cases of COVID-19 and 287,399 deaths (4,245 new deaths compared to the previous day) were confirmed by May 13, 2020.<sup>3</sup> In Brazil, 188,974 cases of coronavirus and 13,149 deaths from the disease are recorded on the same date.<sup>22</sup> Among health workers in Brazil, data released on May 7, 2020 alludes to 11,000 cases of infected and suspected professionals, with 98 deaths from COVID-19.<sup>23</sup>

The current working conditions offered to nursing workers are considered inhumane, as they mainly expose them to biological risks, due to direct care for infected people and the lack of an adequate supply of PPE. As a result of the foregoing, a large number of professionals who were also infected with SARS-CoV-2 were record, who needed to be away from work, drastically reducing the number of these professionals to meet the high demand of patients who need care during this pandemic.<sup>24</sup> It is assumed that given the situations experienced by these workers, who are in direct contact with infected patients, they need to have their mental health regularly examined and monitored. Likewise, it is essential to identify professionals with a history of exposure to psychosocial risk factors.<sup>15</sup>

Nursing professionals need care, attention, and rest. These workers are exposed to totally adverse situations. They face a shortage of PPE, which are basic and necessary elements for patient care. This equipment is essential to maintain the health and safety of the worker. Thus, in their absence, a totally painful scenario is formed for safe professional practice. These are issues that can affect the living, working, physical and mental health conditions of health professionals. Therefore, these workers need more attention, protection, recognition, valuing life and working conditions.<sup>25</sup>

In a session held by videoconference on April 29, 2020, the Plenary of the Supreme Court (STF) suspended article 29 of the Provisional Measure (MP) 927/2020, which authorizes employers to take exceptional measures due to the state of public calamity resulting from the novel coronavirus pandemic, and then the contamination of workers by the coronavirus was recognized as an occupational disease.<sup>26</sup>

In this situation, in the face of the pandemic, it is important to redefine public policies aimed at working conditions and actions that contribute to the valorization of nursing workers, including reducing the workload and providing enough and proper PPE. It is essential that these professionals are treated with dignity, not only on the influence on the quality of care provided but also about the human dignity of nursing workers.<sup>27</sup>

# FINAL CONSIDERATIONS

At the present time, when the new pandemic respiratory syndrome, called COVID-19, associated with the novel coronavirus SARS-CoV-2, is capable of generating many uncertainties in the professional environment, especially regarding the transmissibility of the infectious viral particles and the protection of the professional, special attention is needed for nursing workers who are exposed to the care of infected patients, sometimes subjected to unhealthy working conditions.

This study has as a limitation the short space for the pandemic to unfold, especially in Brazil, and the still limited knowledge about the virus, which may also limit the reflections already made. However, the study contributed to reflect and reinforce the role of nursing professionals in coping with a pandemic, but it still lacks professional recognition and more effective policies to offer less unhealthy working conditions. The pandemic has shown how limited health services around the world, including developed countries, are to cope with facing an aggravation of this magnitude, for example, they have difficulties in adequately supplying health services with enough and proper PPE.

Managers are recommended to intensify efforts to make sure that these workers are ensured the necessary conditions to carry out their activities safely, to avoid that nursing professionals fall ill and consequently stay away from work because they are essential in coping with this disease.

## RESUMO

Introdução: A Organização Mundial da Saúde (OMS) foi notificada da presença de um novo vírus, altamente contagioso, pela China em 2019. Em 2020 a OMS declarou emergência de Saúde Pública e uma nova pandemia. A cepa desse novo vírus tornou-se conhecida como coronavírus 2, Síndrome Respiratória Aguda Grave Coronavírus 2 (SARS-CoV-2) e COVID-19. Delineamento: Este artigo é uma análise teórico-reflexiva, descritiva, narrativa elaborada a partir de duas categorias norteadoras da reflexão sobre as condições de trabalho e saúde dos profissionais de enfermagem no enfrentamento da COVID-19 no Brasil. Resultados: Duas categorias foram formadas "o novo coronavírus e a COVID-19". Implicações: Compreendeu-se que a pandemia da COVID-19 é capaz de gerar muitas incertezas no ambiente profissional, em especial quanto à transmissibilidade das partículas virais infectantes e a proteção do profissional, dessa maneira faz-se necessária atenção especial aos trabalhadores da enfermagem que estão expostos no cuidado de pacientes infectados, às vezes submetidos a condições de trabalho insalubres. Recomenda-se aos gestores intensificar esforços para garantir que esses trabalhadores tenham garantidas as condições necessárias para exercer suas atividades de forma segura.

## DESCRITORES

Infecções por Coronavirus; Vírus da SARS; Serviços de Enfermagem; Saúde do Trabalhador.

#### RESUMEN

Introducción: La Organización Mundial de la Salud (OMS) fue notifica de la presencia de un nuevo virus altamente contagioso por China en 2019. En 2020, la OMS declaró una emergencia de salud pública y una nueva pandemia. La cepa de este nuevo virus se ha conocido como coronavirus 2, síndrome respiratorio agudo severo Coronavirus 2 (SARS-CoV-2) y COVID-19. Delineación: Este artículo es un análisis narrativo teórico-reflexivo, descriptivo basado en dos categorías orientadoras para la reflexión sobre las condiciones de trabajo y la salud de los profesionales de enfermería al hacer frente a COVID-19 en Brasil. Resultados: Se formaron dos categorías: "el nuevo coronavirus y COVID-19: escenario y desafíos planteados" y "las condiciones de trabajo y la salud de los profesionales de netermería a COVID-19". Implicaciones: Se entendió que la pandemia de COVID-19 es capaz de generar muchas incertidumbres en el ámbito profesional, especialmente en cuanto a la transmisibilidad de las partículas virales infecciosas y la protección del profesional, por lo que es necesario prestar especial atención a los trabajadores de enfermería que están expuestos en la atención de pacientes infectados, a veces sujetos a condiciones de trabajo insalubres. Se recomienda a los gerentes que intensifiquen los esfuerzos para que estos trabajadores tengan garantizadas las condiciones necesarias para realizar sus actividades de manera segura.

#### DESCRIPTORES

Infecciones por Coronavirus; Virus del SRAS; Servicios de Enfermería; Salud Laboral.

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# **COLLABORATIONS**

VAB and EGD: Participated in all phases of the study: data survey, analysis and interpretation; elaboration of the manuscript; critical review and approval of the version to be published. SVMS, LAS, RCMBD and MLCCR: Participated in data survey, analysis and interpretation; elaboration of the manuscript; critical review. All the authors agree and take responsibility for the content of this manuscript version to be published.

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# CONFLICTS OF INTEREST

There are no conflicts of interest to declare.