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# **New Coronavirus pandemic (SARS-CoV-2): nursing** protagonism - a relation of the past with the present and perspectives for the future

ABSTRACT | Objectives: Carry out a reflection on the global pandemic of the new coronavirus SARS-CoV-2 and the role of nursing in this context, relating the present with the past and perspectives for the future. Methodology: Study of theoretical and descriptive reflection in a social-economic-political context. Results: Describes the SARS-CoV-2 that causes COVID-19 disease; it also points out the global strategies to minimize its rapid spread. She reports the role of nursing in this context, as they are the professionals who are at the forefront of infection control of a disease without specific treatment and for being on the side of patients 24 hours a day, from basic to intensive care. Add to these factors the work done with the scarcity, the absence or lack of quality and safety of personal protective equipment, the lack of human resources, professionals away from work due to COVID-19, deaths and a lack of social visibility from the past that is present in this pandemic. Conclusion: Nursing in this pandemic has gained visibility and prominence in the world. The perspectives for the future of nursing and the importance of carrying out political actions must therefore aim at meeting the identified demands to avoid the problems of the past, abundantly evidenced in this pandemic.

RESUMEN | Objetivos: Realizar una reflexión sobre la pandemia global del nuevo coronavirus SARS-CoV-2 y el papel de la enfermería en este contexto, relacionando el presente con el pasado y las perspectivas para el futuro. Metodología: Estudio de la reflexión teórica y descriptiva en un contexto socio-económico-político. Resultados: describe el SARS-CoV-2 que causa la enfermedad COVID-19; También señala las estrategias globales para minimizar su rápida propagación. Ella informa sobre el papel de la enfermería en este contexto, ya que son los profesionales que están a la vanguardia del control de infecciones de una enfermedad sin un tratamiento específico y por estar del lado de los pacientes las 24 horas del día, desde cuidados básicos hasta cuidados intensivos. Agregue a estos factores el trabajo realizado con la escasez, la ausencia de falta de calidad y seguridad del equipo de protección personal, la falta de recursos humanos, profesionales fuera del trabajo debido a COVID-19, muertes y falta de visibilidad social. del pasado presente en esta pandemia. Conclusión: La enfermería en esta pandemia ha ganado visibilidad y prominencia en el mundo. Por lo

tanto, las perspectivas para el futuro de la enfermería y la importancia de llevar a cabo acciones políticas deben apuntar a satisfacer

Palavras claves: Coronavirus; Enfermería; Control de Infección; Historia de la Enfermería.

las demandas identificadas para evitar los problemas del pasado, ampliamente evidenciados en esta pandemia.

**Keywords:** Coronavirus: Nursing: Infection Control: History of Nursing.

RESUMO | Objetivos: Realizar uma reflexão sobre a pandemia global do novo coronavírus SARS-CoV-2 e o protagonismo da enfermagem neste contexto, relacionando o presente com o passado e perspectivas para o futuro. Metodologia: Estudo de reflexão teórica e descritiva em um contexto social-econômico-político. Resultados: Descreve o SARS-CoV-2 que causa a doenca COVID-19: pontua também as estratégias globais para minimizar sua rápida disseminação. Relata o protagonismo da enfermagem neste contexto, por serem os profissionais que estão na linha de frente nos cuidados de controle da infecção de uma doença sem tratamento específico e por estarem do lado dos pacientes 24 horas/dia, desde os cuidados básicos aos intensivos. Acrescentem-se a estes fatores o trabalho realizado com a escassez, a ausência ou falta de qualidade e segurança dos equipamentos de proteção individual, a carência de recursos humanos, profissionais afastados do trabalho devido à COVID-19, óbitos e uma falta de visibilidade social do passado que se faz presente nesta pandemia. Conclusão: A enfermagem nesta pandemia ganhou visibilidade e protagonismo no mundo. As perspectivas para o futuro da enfermagem e a importância de se concretizarem ações políticas devem visar, portanto, ao suprimento das demandas identificadas para que se evitem os problemas do passado, abundantemente evidenciados nesta pandemia.

### Palayras-chayes: Coronavírus: Enfermagem: Controle de Infecção: História da Enfermagem

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## INTRODUCTION

n times of pandemic, the scenario that involves populations and health professionals causes great distress, requiring rapid decision-making to mitigate its effects. This is no different. Because it is caused by a new type of coronavirus, called SARS-CoV-2, which until then had not been identified in humans, it required global strategies from authorities and official health agencies to minimize its rapid spread(1).

Nursing had no social visibility like the one we are currently experiencing. For this reason, it is necessary to highlight that a global campaign, initiated in 2018, with the theme Nursing Now (Nursing Now), anticipated an international action to present the professionals of the category as the true protagonists of health in the year of 2020. In addition, a celebration on nurses' day on May 12, 2020 with the

theme "Nurses: a voice to lead - Nursing in the world for health and the bicentenary celebrations of the birth of Florence Nighthingale, precursor of modern nursing", contributed to highlight the category importance<sup>(2-3)</sup>.

Hygiene, comfort and food nursing care instituted by Florence<sup>(4,5)</sup> in the past, the basis of science for the area, they evolved with total scientific basis and evidence-based practices, including for intensive care, so present in this pandemic<sup>(6-7)</sup>.

Nursing is at the forefront in the care of infection control of the disease in which there is no possibility of specific treatment. It is the nursing professionals who stand by the patient 24 hours a day, who bring relief from the signs and symptoms and the hemodynamic changes that are caused in the body by the SARS-CoV-2<sup>(6,8-9,13)</sup>.

In the exercise of their functions, all over the world, the problems that these professionals have faced in this pandemic are striking, in the front line in the care of the control of the infection caused by the disease COVID-19 due to the scarcity of personal protective equipment (PPE) and the lack of human resources in health services that increased due to sick leave due to contamination by the disease and deaths<sup>(8,10,13)</sup>.

Given this scenario, a study is relevant to reflect on the global pandemic of the new coronavirus SARS-CoV-2 and the role of nursing in this context, relating the present with the past and perspectives for the future.

#### **METHODOLOGY**

Study of theoretical and descriptive reflection in a social-economic-political context, with a qualitative approach to content analysis by Bardin(11), from pre-defined categories on the theme, with the objective of reflecting on the global pandemic of the new SARS-CoV-2 coronavirus and the role of nursing in this context, relating

the present with the past and perspectives for the future.

The theoretical basis was built in May 2020, considering the unusual circumstance of a global pandemic by a new pathogen - the new coronavirus SARS-CoV-2 and the scarcity of studies on the subject, with significance and relevance to the use of electronic documents inspection bodies of professional nursing practice - the Federal Nursing Council, the Regional Nursing Council of São Paulo, and other bodies such as the International Nurses Council, the Ministry of Health and the World Health Organization (WHO) and plus three studies/articles selected from databases, PubMed Central and SciELO. The descriptors used: "coronavirus", "nursing", "infection control" and "nursing history".

Following the stages of Bardin's content analysis, pre-analysis, material exploration, treatment of the results obtained, inference and interpretation. The description was carried out in two thematic categories: 1. The global pandemic of the new coronavirus (SARS-Cov-2) causing the disease CO-VID-19; 2. The role of nursing in the face of the pandemic: a relationship between the present and the past and perspectives for the future. Then, the discussion of the results of the categories found is presented.

# RESULTS

Global pandemic of the new coronavirus (SARS-CoV-2) causing CO-VID-19 disease

On December 31, 2019, the World Health Organization (WHO) was alerted to several cases of pneumonia in the city of Wuhan, Hubei province, in the People's Republic of China. It was the most recent type (strain) discovered of coronavirus that had not been previously identified in humans, a beta-coronavirus that received the name of SARS-CoV-2<sup>(1,9)</sup>.

The SARS-CoV-2 is highly pathogenic and responsible for causing respiratory and gastrointestinal syndrome, symptoms of the disease called COVID-19. At first, many of the outbreak patients in China, where the new coronavirus is assumed to have originated, would have had some kind of link to a large seafood and wildlife market in the city of Wuhan, suggesting a spread of the animal virus. For people. Then, it was realized that an increasing number of patients had not had any exposure in that market. After numerous investigations, it was observed that SARS-CoV-2 had a high and sustained transmission from person to person<sup>(9)</sup>.

Coronaviruses, before being considered highly pathogenic, circulated in humans, and caused mild and immunocompetent respiratory and intestinal infections. They are also the second leading cause of common cold (after rhinovirus). In all, seven human coronaviruses (strains - HCo-Vs) have already been identified, four of which are considered mild: HCo-V-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1<sup>(12)</sup>.

In the beginning of the 21st century, two more types of coronavirus (betacoronavirus) were suggested, which are also highly transmissible and pathogenic and responsible for causing respiratory and gastrointestinal syndrome in humans: the severe acute respiratory syndrome (SARS--CoV) coronavirus originated in China, in the year 2002, and the coronavirus of the Middle East respiratory syndrome (MERS-CoV) originated in the Middle East, in the year 2012. The two coronaviruses were transmitted directly to humans from market civets and dromedary camels, and believes both viruses are thought to have originated from bats(12).

The new coronavirus, SARS--CoV-2, the last of the seven already discovered, has a clinical spectrum

ranging from asymptomatic infections to more severe conditions. The majority (about 80%) of patients with COVID-19 can be asymptomatic or symptomatic, and approximately 20% of the detected cases require hospital care due to respiratory difficulties, of which approximately 5% may require ventilatory support, which may lead to death. The most common signs and symptoms of these infections are cough, fever, runny nose, sore throat and dyspnea. Fever may not be present in some patients, such as children, the elderly, the immunosuppressed, or taking medication to reduce fever<sup>(9)</sup>.

People in risk groups are people over 60 and high-risk pregnant women, and the most prevalent comorbidities are also in people over 60 and pregnant women, people with cardiovascular disease, kidney disease, diabetes, chronic lung disease, neoplasms, immunosuppressed and pneumopaths. Transmission occurs from a sick person to another through close contact by touch, droplets of saliva, sneezing, coughing, phlegm, contaminated objects or surfaces(9).

The SARS-CoV-2 incubation period is believed to be 2 to 14 days after exposure. The disease can be transmitted during the symptomatic period and it is suggested that the transmission can also occur even without the appearance of signs and symptoms. Home isolation of all suspected or confirmed cases of CO-VID-19 is recommended for 14 days after the onset of symptoms (9,13).

Susceptibility is general, as it is a new virus. Regarding immunity, it is not known whether the infection in humans that did not evolve to death will generate immunity against new infections and whether that immunity is long-lasting(9).

As for the treatment of COVID-19 disease, so far, there is no specific medication. There are scientific studies on the use of different drugs in



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the hope of finding the one that will cure the disease, but there is nothing conclusive. In addition to the use of these drugs, supportive measures must be implemented and adequate clinical management(9).

On January 30, 2020, WHO declared that the SARS-CoV-2 outbreak constituted a Public Health Emergency of International Importance - the Organization's highest level of alert, as provided for in the International Health Regulations. On March 11, 2020, it classified the disease COVID-19 as a pandemic and has provided technical support to countries and recommended to keep the surveillance system alert, prepared to detect, isolate and early care for patients infected with the new coronavirus(1).

On March 18, 2020, WHO guided countries to increase their capacity to detect cases, care for patients and ensure that hospitals have the space, supplies and staff needed to provide care.

Add to that, the need for health leaders to involve citizens and other sectors in supporting public health actions to contain the situation, flatten the epidemic curve and, thus, avoid overloading health services so that they can offer the necessary care. to all the people who need it. All of this so as not to cause the collapse of health services, which would indicate a lack of possibility to serve people with safety and quality. As health professionals were the first line of defense in infection control of this pandemic, hospitals were encouraged to develop emergency plans and ensure that these professionals had the necessary PPE and training to prevent infection(1).

Most countries have adopted these measures to reduce the rate of transmission and protect their populations in this pandemic. In addition to the hospital environment, they observe measures from declaring a state of emergency and closing borders, scho-



ols, businesses and universities, to promote social distancing<sup>(1)</sup>.

In Brazil, on March 11, 2020, social distance began with the closing of schools and the banning of events(1), and on March 14, 2020, the Ministry of Health updated and defined non--pharmacological measures to reduce the possibility of virus transmission, slowing the progression of the pandemic and reducing the number of cases. These measures aimed at delaying the peak of the pandemic and reducing the height of the peak and decreasing the speed of the spread of the disease, allowing for a better distribution of cases over time and to avoid the depletion of health services and also to allow time to make available more health services and equip them with PPE, laboratory tests and human resources. Many states have adhered to non-pharmacological measures and increased social distance(14).

Worldwide, until June 1, 2020, we had 6,057,853 confirmed cases and 371,166 deaths from the new coronavirus (SARS-CoV-2). In Brazil, 498,440 cases were detected and 28,834 deaths<sup>(15)</sup>.

The role of nursing in the face of the pandemic: a relationship between the present and the past and perspectives for the future

We are probably experiencing a historic milestone in the nursing profession, and worldwide. Until the arrival of this pandemic caused by SARS-CoV-2, the nursing profession had no social visibility like the one we are currently observing, given that nursing is at the forefront in the control of infection caused by the disease COVID- 19.

But even with this lack of social visibility, which is also due to the lack of recognition, self-knowledge and appreciation of the category itself, nursing has evolved with total scientific basis for the care of practice based on scientific evidence<sup>(6-7)</sup>.

Nursing has evolved a lot since the forerunner of the nursing profession in the world, Florence Nightingale (1820–1910), became a protagonist in the history of modern nursing. On May 12, 2020, its bicentenary (200 years) is celebrated. Florence marked history at the end of the 19th century working in the Crimean War (1854–56). She was a hero to the British soldiers she cared for. Since then, it has been an example for humanity, mainly for the professionalization of nursing, as it has changed the health conditions of society<sup>(4-5)</sup>.

The time that Florence worked in the War, at the Scutari Hospital, allowed to prove that hygiene, comfort, and food care were essential and that they could help solve part of the health problems of the 19th century. At that time, treatment with medications was rare, occurring 20 years before Pasteur and Koch divulged the germ theory and a century before the creation of the first antibiotics, with the singular exception of quinine therapy for malaria. Doctors had few drugs to manage infectious diseases<sup>(4-5)</sup>.

In this current "war", in the fight against SARS-CoV-2, nursing professionals represent the largest category active in the health area, whether in public or private institutions, and are the only professionals present in direct assistance without interruption to patients. In these circumstances, they are much more susceptible to contamination due to their performance in welcoming, detecting and evaluating suspected situations of contagion of the new coronavirus when they perform their functions with the recommended technical capacity<sup>(8,10,13)</sup>.

In Brazil, on June 1, 2020, the record of 165 deaths and 16,904 cases of nursing professionals infected by the disease COVID-19 was released<sup>(10)</sup>. The survey portrays the impact of infections caused by SARS-CoV-2 among nurses, technicians, and assis-

tants. This situation is due to the scarcity of EPIS, the adequate training of the teams, the lack of flows/protocols, work overload and the undersizing of the teams<sup>(8)</sup>.

It is known that the use of PPE by health professionals, protective glasses or face shield (face shield), N95/PFF2 mask, surgical mask, apron, procedure gloves and cap (for procedures that generate aerosols) is recommended. Likewise, health services must make PPE available and provide training to all health professionals<sup>(13)</sup>.

The WHO declared in the midst of the pandemic that nursing is extremely important in the global effort to reach the Sustainable Development Goals, which include universal health coverage, mental health and non--communicable diseases, emergency response, patient safety and the offer of comprehensive and humanized care. At the same time, WHO recognizes that a global agenda to contain the epidemic must necessarily include articulated and sustainable efforts to maximize the contribution of the nursing workforce and its role in healthcare teams(16).

In view of the current chaotic and uncertain scenario existing in our health system, in which nursing is the front line in the pandemic, it is observed that campaigns have already been taking place to value nursing professionals as protagonists in health and disease worldwide without that, here, if you give due importance<sup>(7)</sup>. Among these, Nursing Now, is a three-year global campaign, started in 2018 and ending in 2020, and is carried out in collaboration with the International Council of Nurses (ICN) and WHO. It is a great international action to present professionals in the category as the true protagonists of health in  $2020^{(2-3)}$ .

The ICN celebrates the international day of nurses on May 12th, and for 2020 the official theme is Nurses:

a voice to lead - Nursing in the world for health. This 2020 campaign also marks the bicentenary of the birth of Florence Nightingale, as already mentioned(3).

The WHO, Nursing Now and ICN issued an important report on the global situation of nursing in April 2020. It identifies that there are not enough nurses and midwives in the world, and a global deficit of 5.9 million nurses is revealed. Even with a deficit, nursing is the largest occupation group in the health sector, representing approximately 59% of health professions. In this report, future guidelines for nursing workforce policy are: to increase funding to educate and employ nurses; countries should strengthen the capacity to collect, analyze and use health workforce data; verify these calculations and use them for data analysis of the health labor market; nurses' mobility and migration must be effectively monitored, accountable and managed ethically, and necessary actions include strengthening the implementation of the WHO Global Code of Practice for International Recruitment of Health Personnel, by countries, recruiters and stakeholders international; education and training programs for nurses must train nurses to drive progress, especially in universal coverage in primary health care; the actions also include investment in the nursing faculty, availability of clinical assessment sites and accessibility of the programs offered to attract a diverse nursing student body; actions include establishing and supporting the role of a senior nurse in the government responsible for strengthening the national nursing workforce and contributing to health policy decisions; effective models of care led by nurses must be expanded to meet the health needs of the population and improve access to primary care services; policy makers, employers and regulators must coordinate actions in support of decent work; countries must provide an enabling environment for nursing by improving the attraction, deployment, retention and motivation of the nursing staff; they must provide adequate levels of occupational safety and health personnel; countries must also deliberately plan category--sensitive nursing policies and workforces; Actions should include the implementation of an equitable and neutral category system, remuneration among health workers and ensuring that policies and laws that address the gender pay gap also apply to the private sector<sup>(16)</sup>.

In Brazil, on April 24, 2019, the Nursing Now Campaign was launched. Some established goals are: investment and strengthening in education and development of nursing professionals with a focus on leadership; the search for improving the working conditions of nursing professionals: the dissemination of effective and innovative nursing practices based on scientific evidence at national and regional levels(7).

#### DISCUSSION

Worldwide, the disease COVID-19 caused by the SARS-CoV-2 virus, highly pathogenic due to the potential rate of dissemination and without the possibility of specific treatment, has afflicted the population and global strategies were necessary to contain the spread of the disease(1,9,14).

Strategies such as increased social distance, increased number of beds with respirators in hospitals, construction of campaign hospitals and hiring health professionals, especially nursing professionals, were necessary to minimize the number of deaths caused by the disease.

In this context, nursing professionals are at the forefront of care for infection control by COVID-19 disease. They represent the largest active category in the health area, whether in public or private institutions, and have faced great challenges due to the scarcity of PPE, lack of human resources, absences due to a high rate of contamination and deaths(8,10,13).

It appears that nursing has experienced many problems in this pandemic, despite the various strategies established, due to its performance in primary, secondary, and tertiary care in the health and disease process.

The nursing profession had no social visibility like the one we are recognizing today, since the time when the precursor of the nursing profession, Florence Nightingale, in the Crimean War at Scutari Hospital, became a protagonist in the history of modern nursing, in the world, proving that hygiene, comfort and food care were essential to solve part of the health and disease problems of the 19th century, at a time when treatments with medications were rare to fight infectious diseases(4-5).

Relating this past described to the present, the nursing care instituted by Florence, hygiene, comfort, and food, are part of the basis of today's care, with full technical evolution of practices based on scientific evidence. Nursing that sees people as holistic beings, who have a family, culture, have a past and a future and have beliefs and values that influence health and illness experiences.

In this current "war", nursing fights against a disease in which there is no possibility of specific treatment, which also brings us back to the past, to a simple reminder of Florence's times, when she worked in the care of patients who also had illnesses without a specific cure and, mainly, with medications that were rare. The fact is that after almost two centuries we are faced, once again, with a disease that still has no specific treatment and in which the

working conditions are also difficult, but with different perspectives.

Almost anticipating the pandemic, global campaigns by WHO, Nursing Now and ICN were initiated in 2018 to present nursing professionals as the real protagonists of health. In addition to a celebration on nurses' day on May 12, 2020 with the theme Nurses: a voice to lead - Nursing of the world and celebration of the bicentenary of the birth of Florence Nightingale<sup>(2-3,7)</sup>. In addition to campaigns and celebrations around the world, an important report was issued in April 2020 on the global situation of the nursing profession<sup>(16)</sup>.

It is worth mentioning that the lack of social visibility in nursing occurs, among other aspects, also due to the lack of recognition, self-knowledge and appreciation of the category

itself<sup>(6)</sup>. However, it seems that the problems of the past acquire transparency in view of the measures taken by the world health agencies and by the organs of the category itself, marking the present in the history of nursing, and it can even be said that the profession, until then almost "invisible", gains relevance in the world in this pandemic. Consequently, not only does the category awaken to its important role in society, but it also promotes the recognition of the entire population for its role.

As perspectives for the future of nursing, it is important to implement the guidelines for actions highlighted in the report, which guide the need for policies to meet the demands arising from past problems, abundantly present in this pandemic in the world.

#### CONCLUSION

In this approach, it is concluded that, worldwide, the SARS-CoV-2 pandemic, which causes COVID-19 disease, has plagued our populations due to the lack of specific treatment and global strategies were necessary to minimize its rapid spread.

Nursing professionals, in this context, have been the front line in this pandemic, becoming protagonists in the care of infection control caused by the disease and gaining visibility in the world.

Finally, the perspectives for the future of nursing are embodied in the realization of the political actions of each country that must aim at meeting the demands identified by the health agencies and the category, thereby avoiding the repetition of past problems.

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