


Frontline Nursing Care: The COVID-19 Pandemic and the Brazilian Health System

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Alisson Fernandes Bolina, RN, MSc, PhD¹,
Emiliana Bomfim, RN, MSc² and
Luís Carlos Lopes-Júnior, RN, OCN, MSc, PhD³ 

Abstract

Emerging and reemerging infectious diseases are constant challenges for global public health. After the World Health Organization declared COVID-19 a pandemic on March 11, 2020, the spread of SARS-CoV-2 has been the focus of attention for scientists, governments and populations worldwide. In Brazil, the first case of COVID-19 was identified on February 26 2020, being the first country in Latin America to have affected patients. Almost four months later, more than one million confirmed cases of COVID-19 have been identified in the country, and the virus has spread across all 27 states and is responsible for at least 48,954 deaths until June 19, 2020. In addition, a global outbreak requires the active participation of the nursing workforce in clinical care, education, and sharing of accurate information of public health and policies. This year is particularly important for Nursing, as 2020 is the international year for Nursing and Midwifery Professionals. Nursing professionals corresponds to more than half of the health workforce in the country, being crucial in implementing public health policies and programs. Nurses and frontline health care workers have a critical role in the COVID-19 prevention and response, not only by providing direct assistance to patients and communities, but also in the implementation of health promotion and prevention strategies. Hence, we provide a reflection on the strengths and weaknesses of how the nursing profession is engaged with the COVID-19 response in Brazil.

Keywords

coronavirus, SARS-CoV-2, public health nursing, health workforce, Unified Health System

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The first months of 2020 saw the spread of Coronavirus Disease 2019 (COVID-19), which is caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The virus has since been the epicenter of the attention of scientists, government authorities, policy makers, and the general population of virtually all countries (Wang et al., 2020). On March 11, 2020, the World Health Organization (WHO) officially declared COVID-19 as a pandemic (Mahase, 2020; Lopes-Júnior et al., 2020), that at the time this manuscript was written (June 19, 2020), has affected more than 8,728,161 people in 213 countries and territories around the world and taken 461,232 lives, since it's first notification in Wuhan, China, in December of 2019 (Roser et al., 2020). In Brazil, the first case of COVID-19 was identified on February 26 2020. Brazil was, therefore, the first country in Latin America to have a confirmed case of

COVID-19 (da Cunha et al., 2020). Almost four months later, more than one million confirmed cases of COVID-19 have been identified in the country, and the virus has spread across all 27 states and is responsible for at least 48,954 deaths (Roser et al., 2020). Modeling scenarios of the epidemic in Brazil, estimates that the number of cases in the country will duplicate every 54 hours and

¹Faculty of Health Sciences, University of Brasilia, Brasília, Brazil

²College of Medicine, University of Saskatchewan, Saskatoon, Canada

³Department of Nursing, Health Sciences Center, Federal University of Espírito Santo, Vitória, Brazil

Corresponding Author:

Luís Carlos Lopes-Júnior, Department of Nursing, Health Sciences Center, Federal University of Espírito Santo, Avenida Marechal Campos, 1468—Maruípe, CEP 29.043-900, Vitória, ES, Brazil.
Email: lopesjr.lc@gmail.com



43 minutes (Observatório COVID-19 BR), indicating that Brazil has the same rate of transmission as that observed in the United States, United Kingdom and Italy (Sociedade Brasileira Para o Progresso da Ciência, 2020), which has by far the highest numbers of COVID-19 related deaths in the world. It is possible that these numbers are underestimated as the Brazilian Government initially determined to carry out confirmatory tests only in severe cases. In addition, the website that shows a detailed figure of active cases and deaths in Brazilian states, has been taken down by the federal Ministry of Health in June 2020. Twenty-four hours later, as the website was reestablished, the total numbers of active cases and deaths per Brazilian state, were no longer available. The website was limited to showing information from the last 24 hours only (“The Guardian Global Report,” 2020).

Despite the alarming data already known in Brazil, the President, Jair Bolsonaro has minimized the pandemic by discrediting public health authorities in Brazil and abroad regarding measures to mitigate the virus spread, turning him into a target for criticism from the media and political opponents worldwide. This position by the president calls into question all the mitigation measures that has been endorsed by the WHO and by scientists and experts in the areas of virology and epidemiology, creating confusion among Brazilians regarding what actions to take (The Lancet, 2020a).

While the virus spreads in Brazil and worldwide, the scientific community are pursuing many efforts to generate and spread knowledge about COVID-19. On February 13th, 2020, the COVID-19 vocabulary had already been added to the MeSH terms as a subject descriptor indexed in the Medical Literature Analysis and Retrieval System Online – MEDLINE database. On June 19, the new coronavirus had already been cited in 24,215 publications indexed in PubMed. However, little has been reported about the work of nurses, an essential health profession, that acts on the front line of the fight against COVID-19, mainly in Brazil. Hence, we provide an exploration of the strengths and weaknesses of how the nursing profession is engaged with the COVID-19 response in the Brazilian Unified Health System,

Discussion of the Topic

The “*Sistema Único de Saúde*” (SUS), is the largest government-run and publicly administered Universal Health System (UHS) in the world with 190 million users (Paim et al., 2011), recognized by international authorities as the largest and most efficient UHS in the world. It was created to offer services to all Brazilians: distributed in 5570 municipalities (Castro et al., 2019; Massuda et al., 2018).

In a recent study evaluating the first 30 years of SUS’ existence, the authors highlighted the significant contributions of this system on health services access and reductions in health inequality indicators in Brazil (Castro et al., 2019). However, public health experts reaffirmed that the system’s main challenges are political (Paim et al., 2011; Victora et al., 2011). Political disputes within SUS have led to an underfunded system, mainly due to a political agenda that prioritizes adjustment policies, economic growth, and competitiveness (Paim et al., 2011).

In addition, the neoliberal agenda that has been installed in the country in recent years, have reduced the federal budget in several sectors, including the health sector, along with sustained high inflation rates (Government of Brazil, 2016). This has threatened the sustainability and capacity of the system to offer universal access for all in the midst of the COVID-19 pandemic. Therefore, these fiscal austerity measures are called into question by showing a lack of structure and capacity of the political system to offer adequate responses to the population’s health needs. Although this has been causing a gradual scrapping of the SUS at various levels, the COVID-19 pandemic might encourage society mobilization in defense of SUS as universal health system (Giovanela et al., 2018; Victora et al., 2011).

This current pandemic certainly has painfully exacerbated the persisting health inequalities in Brazil. For instance, one of the major concerns refers to the Intensive Care Unit (ICU) beds available in each health region. Estimates show that in 72% of the country’s health regions, the number of ICU beds per 100 thousand inhabitants is less than the minimum standards, even for a typical year, without considering the COVID-19 demand. For instance, if taken the country’s number of beds (i.e. private and public sector), there is a ratio of 15.6 ICU beds per 100,000 inhabitants, however, if taken into consideration only the public sector (i.e. SUS) availability, this ratio is of 7.1 beds per 100,000 inhabitants nationwide. Including all ICU beds (SUS and private plans), more than half of the regions (279 out of 436) have less than 10 beds per 100 thousand inhabitants. In addition, a total of 316 health regions, already operate with an adequate number of ICU beds (below the minimum number needed), and a total of 142 regions have no beds. This means that 14.9% of the population that is exclusively dependent on SUS does not have enough ICU beds in the region where they live. In a hypothetical scenario where 20% of the population are diagnosed with COVID-19, if 5% of those infected need an ICU bed for 5 days, a total of 294 of the 436 health regions in the country would exceed the 100% occupancy rate. In particular, 53% of them would need at least twice as many beds compared to

2019 to treat the most critical cases of COVID-19 (Rache et al., 2020).

Current Insights and Interpretations

It is in this context of potentialities and challenges of the SUS that Brazilian nurses fight against this pandemic. Among the historical challenges in Brazil that still impact the daily work of these professionals, a survey conducted by the Federal Nursing Council and Oswaldo Cruz Foundation revealed important adverse nursing working conditions, such as long working hours, employment contract volatility, inadequate nursing personnel dimensioning, job insecurity, and wage discrepancy in relation to other health professionals. Also, the high degree of workplace violence, bullying, harassment, and the lack of sufficient resting rooms, even when these professionals fall ill due to working conditions are common problems faced by nursing staff in most hospitals across the country (Federal Nursing Council, 2013, 2020a).

Nursing professionals, being crucial in implementing public health policies and programs, correspond to more than half of the health workforce in the country. It is estimated that Brazil has more than 2 million nursing professionals (nurses, nursing technicians, and nursing assistants) actively working in several levels of the SUS (i.e. primary care, outpatient clinics, rehabilitation, emergency units, etc.). Nurses are considered the backbone of health systems, not only for its majority representation in the health workforce, but also for its presence and performance in the health services. Nurses coordinate and provide uninterrupted assistance to patients and ensuring that each individual receives the best possible care from start to finish (Silva & Machado, 2020). Nurses are playing a crucial role in the COVID-19 pandemic, therefore, without them, it would not be possible to efficiently fight against this pandemic.

The arrival of the COVID-19 pandemic revealed this position of systematic and historical devaluation of nursing professionals in Brazil, as well as the weaknesses of SUS in facing the pandemic. Since the beginning of the pandemic in Brazil, reports from the Regional Nursing Councils across the country showed that these professionals are working under intense pressure, in inadequate environments, and unsanitary conditions. These reports also highlighted restricted or non-existent access to personal protective equipment (PPE) and lack of basic supplies, such as alcohol gel and soap, in addition to the lack of training in the use of PPE and protocols determined by the Ministry of Health (Federal Nursing Council, 2020b). Moreover, in a technical note published on March 21, 2020, and following the WHO guidelines, the National Health Surveillance Agency of Brazil (ANVISA) demanded the use of surgical, N95 or

FFP2 masks, or equivalent during aerosol-generating procedures (Agência Nacional de Vigilância Sanitária, 2020). Although there is no consensus on the prevention and control of COVID-19 contamination risks among health workers, other global agencies (i.e. Center for Disease Control and Prevention and European Center for Disease Prevention and Control) have been more rigorous in selecting respiratory protection, making Brazilian recommendations subject to criticism by experts (Xie et al., 2020). As the pandemic progresses, the protection of health workers has been of great concern in a global order (The Lancet, 2019). Deaths by COVID-19 among nurses in Brazil is already higher than in the United States. In Brazil 169 health professionals have died of COVID-19 so far, and a total of 98 out of these 169 professionals were nurses. Indeed, Brazil alone accounts for 38% of health professionals deaths worldwide (Federal Nursing Council, 2020c). Despite the occupational risks and immediate need of better working conditions, nurses worldwide have taken the lead in the fight against COVID-19, demonstrating their ethical principles, human commitment, and responsibility towards their profession (Mitchell, 2020).

We must mention that claims to the public authorities in favor of the valorization of nursing professionals in Brazil are historical. For instance, the National Congress remains silent regarding two project acts (PL 4924/2009; PL 459/2015) that claim for a more structured salary bands for nurses, as well as equal pay for nursing staff nationwide. In addition, a second act that regulates nursing workload (PL 2295/2000), has been under analysis in the National Congress for over 19 years. It is urgent that Brazilian public authorities recognize nursing professionals not only as resources to fight the pandemic, but as “human beings” endowed with biopsychosocial needs (The Lancet, 2020b). Also, in order to improving compensation and working conditions, other reflections must be considered in this scenario of potential health system collapse. First, it is important to reflect on the safety of health professionals who live in the same place as the population considered vulnerable to COVID-19. Second, it is crucial to determine what support will be offered to professionals who have children who are being impacted by school closures and measures of social distance. Third, we must also reflect, at a minimum, on the psychological support needs, given the extreme physical and mental burden to which they are being subjected (Silva-Junior et al., 2020).

All nurses have a pivotal role in the COVID-19 prevention and response, not only by providing direct patient assistance, but also in implementing prevention and health promotion strategies in a community level and for other health care professionals. For instance, in a community level, nurses have an important

educational role in instructing patients, families, and society about the current outbreak, which includes facing misinformation, driving communities to follow the recommendations of public health authorities, and promoting measures to prevent new infections. In a professional level, nursing leaders are responsible for providing continuing education to nursing staff, which includes, but are not limited to providing up-to-date information in the event of an outbreak and updating nursing staff on occupational health and safety procedures (i.e. engineering controls and administrative controls). For instance, an essential activity that must be encouraged during an outbreak is the point-of-care risk assessment (PCRA). It is crucial that every nurse and frontline health care workers conduct a PCRA before every patient to determine the level of risk they are exposed to and how to protect themselves. While assessing and controlling personal risk, nurses rely on individual nurses' professional judgment (i.e., knowledge, skills, reasoning, and education). Ultimately, if any worker feels the PPE they have been provided is not sufficient or inadequate, given the patient acuity, environment or other factors, they should be able to access a higher level of PPE.

A global outbreak requires the active participation of the nursing workforce in clinical care, education and sharing of accurate information of public health and policies (von Strauss et al., 2017). In addition, it is critical that nurses advocate for the response of local, regional, and national policies during COVID-19 outbreak and support local health promotion and prevention efforts (International Council of Nursing, 2020; Smith et al., 2020). Nurses around the world are engaged in responding to COVID-19 and, with appropriate support, will be decisive in ending the outbreak (Choi et al., 2020). Therefore, on one hand, fighting the pandemic represents a great challenge for nurses (Jiang et al., 2020), on the other hand, it will be an opportune time for nursing professionals to demonstrate its decisive role in delivering healthcare around the world.

This year is particularly important for Nursing, as 2020 is the international year for Nursing and Midwifery Professionals (WHO, 2020). It is the 200th anniversary of Florence Nightingale's birth, the most iconic figure in the professional class, and known as the founding figure of modern nursing (The Lancet, 2019). Nightingale's contributions have played an important role in the prevention and control of infections and isolation measures (WHO, 2020). For instance, in the context of Nursing history in Brazil, the performance of the Brazilian nurse Wanda de Aguiar Horta stands out in particular, as she was recognized for her tremendous contribution to nursing profession in the country. She helped in consolidating the profession's scientific bases based on the Theory of Basic Human

Needs. Through her work, Horta established the importance of care planning and the Nursing Process in order to strengthen the autonomy of nurses and bridge the gap between art and science. She wanted Brazilian nurses to rediscover the art of nursing through evidence-based practice (Horta, 1974). These historical aspects need to be redeemed to create greater awareness of nurses' potential and indispensable role in the current situation.

Conclusion

As nurses, our knowledge, skills, reasoning, and education are essential on how to effectively deal with public health issues, with or without a pandemic outbreak. We recognize the efforts of Brazilian nurses, who have shown courage, wisdom, and a sense of responsibility during the COVID-19 outbreak and who are gaining the respect of Brazilians. On March 19, 2020, several cities across Brazil registered communities getting together to give a round of applause for health professionals working on the front lines of the COVID-19 outbreak, hailed as heroes in danger. The challenge now is to turn this applause into a truthful recognition of nurses, through measures that guarantee decent working conditions, decent salaries, and fair workload. The nursing profession needs to be recognized not only in times of crisis, but also to receive its due merit as a key element in the healthcare sector by taking care of individuals and communities.

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Author Contributions

AFB wrote, planned as well as interpreted the data in the article, critically reviewed successive versions of the paper and approved the final version to be published. EB wrote as well as interpreted the data in the article, critically reviewed successive versions of the paper and approved the final version to be published. LCLJr conceived the paper, planned, supervised, wrote and interpreted the data, also critically reviewed successive versions of the paper and approved the final version to be published.

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ORCID iD

Luís Carlos Lopes-Júnior  <https://orcid.org/0000-0002-2424-6510>

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