

# COVID-19 and the nursing labor market: lessons learned by analogies between historical events

*COVID-19 e mercado de trabalho da enfermagem: lições aprendidas por analogias entre eventos históricos*

*COVID-19 y el mercado laboral de enfermería: lecciones aprendidas por analogías entre hechos históricos*

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## ABSTRACT

**Objectives:** to reflect on the impacts of Brazil's response to the COVID-19 pandemic demands on the nursing labor market in light of the recovery of experiences in the USA during the World War II. **Methods:** this is a discursive formulation, which discusses the nursing labor market, establishing analogies between historical events. **Results:** measures implemented in the World War II by the USA are similar to those that the Brazilian Federal Government has adopted, and, as in the USA, such measures strongly affected both professional training and the nursing labor market. In Brazil, the measures can also deepen problems in the national nursing labor market, reverberating in precariousness. **Conclusions:** a better way to meet the demand for nursing workers can be with the existing supply of trained and available workers. **Descriptors:** Nursing; History of Nursing; World War II; Coronavirus Infections; Employment.

## RESUMO

**Objetivos:** refletir sobre os impactos da resposta do Brasil às demandas da pandemia de COVID-19 ao mercado de trabalho da enfermagem à luz do resgate de experiências havidas nos EUA por ocasião da Segunda Guerra Mundial. **Métodos:** formulação discursiva, que discute o mercado de trabalho da enfermagem, estabelecendo analogias entre eventos históricos. **Resultados:** medidas implementadas na Segunda Guerra Mundial pelos EUA se assemelham às que o Governo Federal brasileiro tem adotado, e, assim como nos EUA, tais medidas atingiram fortemente tanto a formação profissional quanto o mercado de trabalho da enfermagem. No Brasil, as medidas também podem aprofundar problemas do mercado de trabalho da enfermagem nacional, reverberando na precarização. **Conclusões:** uma forma mais acertada de atender à demanda por trabalhadores de enfermagem pode ser com a oferta já existente de trabalhadores treinados e disponíveis.

**Descritores:** Enfermagem; História da Enfermagem; II Guerra Mundial; Infecções por Coronavírus; Mercado de Trabalho.

## RESUMEN

**Objetivos:** reflexionar sobre los impactos de la respuesta de Brasil a las demandas de la pandemia de COVID-19 en el mercado laboral de enfermería a la luz de la recuperación de experiencias en Estados Unidos durante la Segunda Guerra Mundial. **Métodos:** formulación discursiva, que analiza el mercado laboral de enfermería, estableciendo analogías entre hechos históricos. **Resultados:** las medidas implementadas en la Segunda Guerra Mundial por los Estados Unidos. Son similares a las adoptadas por el Gobierno Federal de Brasil y, al igual que en los Estados Unidos, estas medidas afectaron fuertemente tanto a la formación profesional como al mercado laboral de enfermería. En Brasil, las medidas también pueden profundizar los problemas en el mercado laboral nacional de enfermería, repercutiendo en la precariedad. **Conclusiones:** una mejor manera de satisfacer la demanda de trabajadores de enfermería puede ser con la oferta existente de trabajadores capacitados y disponibles. **Descritores:** Enfermería; Historia de la Enfermería; Segunda Guerra Mundial; Infecciones por Coronavirus; Mercado de Trabajo.

## INTRODUCTION

The nursing labor market in Brazil is experiencing a paradox. There is, at the same time, both a strong pent-up demand for nursing workers and a large supply of unemployed nursing workers, in addition to workers who have left their profession to work in another field<sup>(1)</sup>. Major financial crises, such as the one that the global capitalist system was already experiencing since before the COVID-19 pandemic, affect the labor market in all branches of the economy. However, when major events that greatly increase the demand for health workers occur, the broad and chronic deficiencies of the nursing labor market are exposed to the light of day.

COVID-19 is a disease caused by Betacoronavirus SARS-CoV-2<sup>(2)</sup>. After detecting cases of pneumonia of unknown cause since early December 2019 in Wuhan City, Hubei Province, and having identified the genetic code of the new coronavirus two days earlier, the disease was reported for the first time by Chinese national authorities to the World Health Organization on December 31, 2019<sup>(2)</sup>. The broad clinical spectrum of COVID-19 can range from asymptomatic to sepsis, which causes the syndrome of multiple organ dysfunction, through dry cough and respiratory failure, which requires admission to an Intensive Care Unit to obtain ventilatory support<sup>(2)</sup>.

Of the total of 158,517,286 confirmed cases on the planet as of May 10, 2021, there are a total of 3,296,584 confirmed deaths from COVID-19, although these numbers do not adequately represent the reality due to the global shortage of tests<sup>(3)</sup>. In Brazil, until this same date, there were 15,184,790 confirmed cases and 422,340 confirmed deaths in a national setting of profound shortage of tests<sup>(3)</sup>. Given the high transmissibility of the disease and the high incidence of hospitalizations, COVID-19 imposes an overload on health systems that affects the health labor market, especially in nursing. Furthermore, mortality among health professionals tends to be higher in relative terms, as they are constantly exposed to many people in their jobs and eventually provide assistance directly to people infected with SARS-CoV-2.

The Federal Government of Brazil has taken a series of measures to circumvent the repressed demand for workers in the Unified Health System (SUS – *Sistema Único de Saúde*). These measures directly impact not only the nursing labor market, but also the training of nurses and the quality and safety of health services. The nursing labor market in Brazil is currently experiencing a setting similar to that of the United States of America (USA) in the 1940s, when there was, on the one hand, a high demand for nurses in hospital services due to an event of global proportions that pressured health systems for hospital admissions and, on the other hand, a setting of chronic unemployment in the category<sup>(4)</sup>.

## OBJECTIVES

To reflect on the impacts of Brazil's response to the COVID-19 pandemic demands on the nursing labor market in light of the recovery of experiences in the USA during the World War II.

## COVID-19 pandemic and the nursing labor market in Brazil

Coronaviruses are single-stranded positive RNA viruses of the *Coronaviridae* family<sup>(2)</sup>. The subfamily *Orthocoronavirinae* has four

genus: Alphacoronavirus, Betacoronavirus, Deltacoronavirus and Gammacoronavirus<sup>(2)</sup>. There are, so far, seven coronaviruses that infect humans. Betacoronaviruses HCoV-OC43 and HCoV-HKU1 and Alphacoronaviruses HCoV-229E and HCoV-NL63 cause common colds and self-limiting upper respiratory tract infections, while Betacoronaviruses SARS-CoV, SARS-CoV-2 and MERS-CoV can cause respiratory symptoms serious and a lethality of up to 35%<sup>(2)</sup>.

COVID-19 is the disease caused by SARS-CoV-2. Named in reference to SARS-CoV due to its high nucleotide identity, SARS-CoV-2 has an elliptical shape, although eventually pleomorphic, with a diameter around 60-140 nm<sup>(2)</sup>. Genomic analyzes indicate that SARS-CoV-2 would have been the result of a mutation that triggered the virulence in humans of a coronavirus that infect bats<sup>(2)</sup>. SARS-CoV-2 is believed to be transmitted between humans by respiratory droplets and there is evidence of the feasibility of aerosol transmission in closed spaces<sup>(5)</sup>.

Pandemic coping situations provoke strong anxiety in frontline health professionals. Some of the sources of anxiety during the COVID-19 pandemic among health professionals are problems with access to personal protective equipment, the possibility of transmitting the virus to their families, not having access to diagnostic tests when they have symptoms, uncertainty about the access of infected family members to health services, lack of access to care for their children during mitigation or suppression measures, insecurity in working in a sector that is unfamiliar and lacking access to up-to-date information and the media<sup>(6)</sup>.

Inspection of COFEN/Regional Boards System pointed out that there were reports of lack of N95/PFF2 masks and other personal protective equipment to assist patients suspected or confirmed of COVID-19 in about 90% of the institutions consulted across the country<sup>(7)</sup>. The report also pointed out that, as of April 13, 2020, there was a deficit of 7,603 nursing workers, 2,689 nurses and 4,914 nursing technicians and assistants<sup>(7)</sup>.

In 2013 there were 80,631 unemployed nursing workers and 6,521 who had abandoned the profession<sup>(1)</sup>. The 77.4% increase in the unemployment rate of the Brazilian population between the last quarter of 2013 and the last quarter of 2019 may have further aggravated nursing unemployment<sup>(8)</sup>. Moreover, 500,161 nursing workers reported having more than one employment relationship<sup>(1)</sup>; 65.9% of Brazilian nursing workers perform stressful activities; in the public sector, 62.5% have wages of up to 3,000 *reais* (about US\$588); 14.4% have sub wages (up to one thousand *reais*, about US\$192); in the private sector, 68.2% have wages of up to 3,000 *reais* (about US\$588); 22.1% have sub wages; in the philanthropic sector, 70.1% have wages of up to 3,000 *reais* (about US\$588); and 22.1% have sub wages<sup>(9)</sup>.

One of the responses of the Federal Government, to meet the demand for health professionals amidst the public health emergency of national concern resulting from COVID-19, was established by Ordinance 492/2020 of the Ministry of Health, which provides for the 'O Brasil Conta Comigo' Strategic Action. Ordinance 492/2020 deals with the public call of nursing, physiotherapy and pharmacy students in the last year of their respective undergraduate and medical courses of the last two years to undertake a mandatory curricular internship within the scope of combating COVID-19; according to Notice 4/2020 of the Ministry of Health, they will receive a scholarship in the amount

of one minimum wage per month to fulfill weekly workloads of 40 hours. Additionally, it also calls students from any curricular stage of these courses to work in the fight against COVID-19, receiving, also according to Public Notice 4/2020 of the Ministry of Health, a scholarship in the amount of half the minimum wage per month to fulfill weekly loads of 20 hours work.

Summoning graduate students in the health area to act in a setting as complex as that of combating COVID-19 can be disservice to the population, as it will have the assistance of people who, although they have a certain amount of knowledge, skills and abilities in the area, they still need to develop them to act professionally. Furthermore, this setting can be harmful to the students themselves<sup>(10)</sup>, as their supervision by health professionals will likely be greatly affected by the workload and there is no clarity on a number of legal aspects, such as potential indemnities and student employment contracts and the professionals who will be in charge of their supervision.

Strategic action further aggravates the problematic situation of the health labor market, especially in nursing, which will suffer from the competition of this vast and very cheap workforce. In 2017, there were 795 Higher Education Institutions (HEIs) offering 990 nursing courses between face-to-face and distance learning, with 285,097 students enrolled, 249,958 in private HEIs and 35,139 in public HEIs<sup>(11)</sup>. On the other hand, we have examples such as the one in the state of Rio Grande do Norte, where a significant number of nurses who complete their undergraduate course do not enter the labor market due to lack of opportunities<sup>(12)</sup>. Moreover, using student labor can mask the rates of work accidents, since any accident that may occur with those who do not have an employment relationship will not be configured as a work accident. Nurse was the highest-level occupation most affected by work accidents involving biological material, both in absolute and relative terms, according to data analysis of the Reporting Diseases Information System<sup>(13)</sup>. A survey in 22 public hospitals in the state of Bahia identified that 34.7% of nurses left work for health reasons, an outcome statistically significantly associated with frequent repetitive strain and the presence of noise at work<sup>(14)</sup>.

Although to a lesser extent, another threat to the nursing labor market was instituted through Ordinance 374/2020 of the Ministry of Education, which makes the anticipation of graduation for students in medicine, nursing, pharmacy and physiotherapy courses more flexible. Such anticipation, if carried out without adequate completeness of training with regard to the skills required for professional practice, puts the health and lives of users of health services at risk, further aggravating the sanitary crisis in Brazilian society.

The flexibility of nursing training in Brazil and the precariousness of the labor market observed in the context of this pandemic are close to what happened in the US during the crisis caused by World War II, when measures of this magnitude were also implemented by that country.

Although we know that a World War and the confrontation of a pandemic are distinct events, and the socio-political and economic contexts of the countries in question are also different, the measures of US interference in the nursing labor market during World War II are similar to those that Brazil has implemented to face the COVID-19 health crisis. Therefore, there is not, properly,

the intention of comparing contexts, but rather to raise awareness that past histories of other countries and their lessons should not be neglected, which can be useful to inform decisions to be taken in Brazil amidst of public health emergency of national importance resulting from a pandemic such as that of COVID-19.

### **World War II and the US nursing labor market**

World War II was the biggest war in human history. Although they had no interest in joining the war at first, after the fall in 1940 of the Neutrality Act of 1935 and the Japanese attack on the Pearl Harbor military base on December 7, 1941, the United States of America (USA) declared war on Japan on December 8, 1941<sup>(15)</sup>. Meanwhile, Axis members along with Japan, Germany and Italy declared war on the US three days later<sup>(15)</sup>.

US nursing leaders had been prepared since 1940, when they set up the Nursing Board for National Defense, later called the National Nursing Board for War Service. The Board was formed by representatives of the American Nursing Association (ANA), the National League for Nursing, the National Association of Public Health Nursing, the Association of Collegiate Schools of Nursing, the National Association of Colored Graduate Nurses, the American Association of Industrial Nurses, Federal Nursing Services, and the American Hospital Association<sup>(15)</sup>. The federal government demanded a series of 'war efforts', with a strong patriotic appeal to meet the hospitals' demand for nursing workers. Working conditions, however, were appalling and wages very unrewarding, which led the Board to withdraw even more rights from female nurses and to increase competition in their labor market<sup>(4)</sup>.

The nursing labor market in the 1930s in the USA was marked by massive unemployment, mostly due to the consequences of the crisis that led to the New York stock crash exchange in 1929<sup>(4)</sup>. Hospital occupancy rates dropped drastically over the period and the chances of private nurses being hired by a family were very low. In response to this setting, ANA and some actors in the hospital and education sector developed a strategy to close poor quality nurse training schools, establish a maximum daily working day of 8 hours for private nurses, create support services to hiring nurses and developing an hourly nurse hiring experience<sup>(4)</sup>. Basically, all the measures failed, either because of ANA's own lack of interest or because of nurses' resistance to the loss of security in the work relationship or autonomy.

An important step taken in favor of nurses was the demand from ANA, in 1932, to replace the use of work force of apprentices and to hire registered nurses with security of employment, wages and benefits<sup>(4)</sup>. However, jobs for nurses would have their wages reduced and a strong division of labor would be enforced through Taylorist principles<sup>(4)</sup>. During this period, the category Licensed Practical Nurse (LPN) emerged, nurses graduated in a one-year technical program, time and movement studies on nursing activities and the functional nursing model, where each nurse was responsible for performing a certain task with all patients in the sector along the lines of a Fordist production line<sup>(4)</sup>. The appalling working conditions led the nursing workers to seek unionization, but these efforts were promptly rejected by ANA itself<sup>(4)</sup>.

With the advance of private health insurance, such as Blue Cross, hospitalization in the 1940s became a much more accessible option for the population than traditional home care<sup>(4)</sup>. To meet the demand for nursing workers in hospitals, the Board, instead of qualifying the supply of jobs, promoting the improvement of working conditions, wages, job security and benefits for nursing workers, decided to undo all the advances achieved in the past decade that had some positive effect on the nursing labor market. In this way, the Board has freed up the training of an additional 50,000 nurses per year, lowered the entry requirements for nursing training programs, shortened the minimum time required for the duration of these programs, allowed the return to use of the nursing student workforce and legally recognized and endorsed the creation of LPN training courses – more than 200,000 of these workers were trained during the war<sup>(4)</sup>.

The result of Board's actions was to force workers to receive wages as low as half of what was necessary to survive, a sudden drop in the quality of services and even deaths of nurses due to work overload, fatigue and susceptibility to illnesses<sup>(4)</sup>. With the increase in demand for factory workers caused by the war, factory wages became more advantageous than that of nurses in hospitals at the time, creating a merely artificial shortage of nurses for the hospital service<sup>(4)</sup>. Men were prohibited from practicing nursing, black nurses were not accepted by hospitals at the time and nurses over 40 years of age suffered prejudice at work<sup>(4)</sup>.

It is observed that, given the crisis situation imposed on the USA in the context of World War II, the actions implemented by the country strongly affected both professional training and the nursing labor market. The costs of such measures were paid for strategies to make the entry profile more flexible and for the acceleration of the exit from the course, and, in the market, the costs were high unemployment, precariousness and vulnerabilities to female workers.

In Brazil, reflections on coping with COVID-19, through relativization strategies in nursing education, led to the conclusion that the application of empirical and ethical standards in nursing care may be compromised, which raises doubts about the feasibility and benefits of such measures, especially when combined with previous experiences in other countries and world settings<sup>(16)</sup>.

The analysis of the situation that occurred in the USA with the measures implemented in World War II joins these reflections and further reinforces the position that the insertion of students and professionals who received early training in care amidst a health crisis such as the one currently experienced, it further aggravates not only quality of training, but also the nursing labor market, as well as its precariousness.

In this sense, knowing the recent history of the countries, the crises experienced and the responses to the problems arising from

them can, from possible approaches, serve to inform potential decisions and prospectively analyze their consequences, in this case, for the nursing labor market.

## CONCLUSIONS

In the 20<sup>th</sup> century, even in a setting of chronic unemployment among nursing workers before and during World War II, the US government pressured the National Nursing Board for War Service to, among other measures, increase the supply of vacancies for training nursing workers and to allow the return of nursing students workforce exploitation in exchange for very low pay. In this 21<sup>st</sup> century, amidst the public health emergency of national importance resulting from COVID-19, the Brazilian government acts on the nursing labor market, which is experiencing a setting of significant unemployment and profession abandonment, imposing inadequate working conditions – including biosafety – and calling graduate students to work in frontline services in exchange for very low pay through the 'O Brasil Conta Comigo' Strategic Action. Although under different circumstances, the strategies adopted by both countries put the entire category in a situation of vulnerability, whether those who are employed, those who are unemployed and those who are in their training process. Saving expenses by calling on students and professionals who have not completed their training to combat this serious threat to the health and lives of its people can have serious consequences.

Acting together with political and organizational nursing entities, without sparing efforts to protect and value nursing workers, so that they act safely in the prevention and tackling of COVID-19, is an important and necessary strategy to be applied by the government to mitigate the effects of the pandemic in the country. History teaches us that actions such as those that the Federal Government has implemented can generate harmful consequences for quality of health care. Acting on the nursing labor market, in order to fill the demand with the existing supply of trained and available workers may be the right decision.

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