

# Public Health Emergency: Social vulnerability from the perspective of workers affected by COVID-19

Emergência em Saúde Pública: vulnerabilidade social sob a perspectiva de trabalhadores afetados pela covid-19

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ABSTRACT Public Health Emergencies (PHEs) are characterized by situations demanding the urgent implementation of control, prevention, and risk containment measures. COVID-19 was one of the most lethal PHEs of the 21st century, directly impacting the social vulnerability of numerous workers due to potential reductions in working hours and the actual loss of employment ties due to the illness and its sequelae. This study aimed to understand the experience of social vulnerability among diverse workers affected by the sequelae of COVID-19 (long COVID), who were receiving care at a public outpatient clinic located in the state of Bahia, Brazil. In-depth interviews were conducted using a semi-structured questionnaire, and narratives from eight workers were analyzed based on hermeneutic-dialectics and social health sciences approaches. The findings confirm that long COVID exacerbates social vulnerability, particularly among workers lacking access to social security protections. The feminization of caregiving and the overburdening on women were evident, alongside the lack of social recognition of long COVID as a legitimate barrier to labor market reintegration. The study revealed that COVID-19 is not a socially neutral disease, disproportionately affecting socially disadvantaged groups.

KEYWORDS Emergency. COVID-19. Worker's health. Social vulnerability. Rehabilitation centers.

RESUMO Emergências em Saúde Pública (ESP) caracterizam-se pela ocorrência de situações que demandem emprego urgente de medidas de controle, prevenção e contenção de riscos. A covid-19 foi uma das ESP mais letais do século XXI, repercutindo diretamente na vulnerabilidade social de inúmeros trabalhadores, haja vista a possibilidade de redução de carga horária e perda real de vínculo empregatício devido ao adoecimento e suas sequelas. O objetivo desta pesquisa foi compreender a experiência de vulnerabilidade social de distintos trabalhadores afetados pelas sequelas da covid-19 (covid longa), acompanhados em um ambulatório público, localizado no estado da Bahia, Brasil. Por meio de entrevista em profundidade utilizando questionário semiestruturado, obtiveram-se narrativas de oito trabalhadores, analisadas a partir de aproximações com a hermenêutica-dialética e estudos das ciências sociais em saúde. Os resultados confirmam que o adoecimento por covid longa amplifica a vulnerabilidade social, principalmente daqueles trabalhadores sem garantias da seguridade social. Observaram-se a feminização do cuidado e a sobrecarga das mulheres, além do não reconhecimento social da covid longa como barreira para o retorno ao mercado de trabalho. O estudo revelou que a covid-19 não é uma 'doença socialmente neutra', atingindo, sobretudo, grupos em desvantagem social.

**PALAVRAS-CHAVE** Emergências. Covid-19. Saúde do trabalhador. Vulnerabilidade social. Centros de reabilitação.

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### Introduction

The International Health Regulations 2005 (IHR 2005)<sup>1</sup> define Public Health Emergencies of International Concern (PHEIC) as extraordinary events that pose a public health risk to other countries and require a coordinated international response. Since 2011, according to data from the World Health Organization (WHO), more than 1,200 outbreaks of potentially epidemic diseases have occurred in 188 countries<sup>2</sup>.

The COVID-19 pandemic emerged as one of the deadliest of the 21st century, with estimates of 15 million direct and indirect deaths between 2020 and 2021<sup>3</sup>. In Brazil, as of February 2025, a total of 714,959 deaths have been officially attributed to the disease<sup>4</sup>. Beyond its high mortality, the pandemic has had long-lasting impacts on population health, among which the condition known as long COVID stands out<sup>5</sup>.

National studies indicate that individuals affected by moderate or severe forms of COVID-19 experience persistent symptoms, such as fatigue, myalgia, dyspnea, and cognitive impairment, even six months after hospital discharge<sup>5</sup>. Although most patients have returned to work, many have reported impaired functioning and difficulties in maintaining their previous work pace<sup>5</sup>. Another survey found that some affected workers were forced to reduce their working hours or cease their professional activities altogether, often without access to legal benefits or sick leave<sup>6</sup>.

Globally, work disability associated with illness leads to significant socioeconomic costs, with direct implications for Return to Work (RTW)<sup>7</sup>. This complex process is influenced by various factors that may function as either facilitators or barriers, including: clinical condition, psychosocial aspects, work leave and/or workplace modifications, received support, and the availability of RTW programs<sup>7</sup>. This perspective also helps to understand better the challenges and processes

involved in returning to work for individuals affected by long COVID.

However, it is worth noting the lack of official data in the country on the prevalence of long COVID<sup>8</sup> and the lack of studies that consider the occupation of the subjects surveyed<sup>5,9</sup>. Thus, this research aims to analyze the experience of social vulnerability of workers, with different insertion in the formal and informal economy sectors, directly affected by COVID-19 in Brazil.

This study adopts a framework that understands vulnerability as the result of individual, social, and programmatic factors, with an emphasis on the social dimension<sup>10</sup>. This approach allows for examining how structural inequalities – especially those linked to gender and race – intersect with the labor environment and increase exposure to illness and its impacts<sup>10</sup>. The literature indicates that the zone of vulnerability, as proposed by Castel<sup>11</sup>, refers to contexts characterized by job insecurity and fragile support networks within an environment of increasing social protection gaps.

Gender is understood as a historical and social construct that shapes power relations within unequal societies, such as Brazil<sup>12,13</sup>. Similarly, race is conceived as a socio-historical category that hierarchizes social groups based on phenotypic markers, such as skin color, rooted in nineteenth-century conceptions<sup>14</sup>. The intersection of gender and race can lead to complex experiences of social vulnerability following illness<sup>12-14</sup>.

Although the formal public health emergency ended in 2023<sup>15</sup>, the effects of the pandemic persist, particularly in the areas of mental health and work capacity. In Brazil, there is a noticeable lack of effective public policies to support workers affected by COVID-19<sup>8,16</sup>. In light of this, and considering the possibility of future pandemics<sup>17,18</sup>, this research aims to contribute to the body of knowledge on the social and occupational impacts of COVID-19, with a focus on the inequalities embedded in these experiences.

### Material and methods

This qualitative, descriptive-analytical study examines the meanings workers attribute to their experiences of vulnerability after contracting COVID-19<sup>19</sup>. It was conducted at a public outpatient clinic within a hospital in the state of Bahia and represents one of the outcomes of a dissertation by one of the authors of this study. The choice of location was influenced by the researcher's involvement as a health worker in this clinic at the time.

The study employed purposive sampling, comprising eight workers monitored by the researcher through the outpatient clinic's psychology service. Each participant was diagnosed with long COVID and was individually approached to partake in the research, ensuring alignment with the study's core focus<sup>19</sup>. It was explicitly communicated to all invitees that refusal to participate would have no impact on the continuity or quality of the healthcare they received.

The inclusion criteria for workers in this study were as follows: individuals of any gender over 18 years of age, experiencing persistent symptoms of COVID-19 for more than four weeks, currently working or not, undergoing psychological treatment due to illness caused by COVID-19, and responding to the race/color question. Exclusion criteria comprised patients from the outpatient clinic who were not receiving psychological services, and individuals under 18 years old.

Data were collected through in-depth interviews, a qualitative methodological tool that enables a comprehensive understanding of participants' experiences, perceptions, and information that can be analyzed scientifically<sup>20</sup>.

Individual interviews were audio-recorded and conducted between April and July 2022 in a single session lasting approximately one hour, held in a private setting within the outpatient clinic. A semi-structured questionnaire was used during the interviews, initially covering sociodemographic data and subsequently addressing five thematic areas: (1) persistent

post-COVID-19 symptoms and mood/behavioral changes; (2) social vulnerability before and after COVID-19 infection; (3) mental health during the pandemic; (4) expectations and working conditions after COVID-19; and (5) psychological distress and work activity in the post-COVID-19 context.

The interviews were transcribed by the researchers, who engaged in repeated readings to interpret the meanings that the workers attributed to their experiences of illness within a context of vulnerability. To preserve anonymity, pseudonyms were assigned to all participants. Their narratives were then grouped into thematic categories based on similarities in meaning, following an analytical approach inspired by Hans-Georg Gadamer's 'Truth and Method', particularly the principles of interpretive understanding and the hermeneutic circle<sup>21</sup>.

In recognizing that interpretation must guard against the arbitrariness of sudden intuitions and instead direct its attention to "the things themselves"<sup>21(271)</sup>, the analysis of narratives considers not only the spoken words but also elements that transcend verbal language, such as silences, gestures, and facial expressions<sup>21</sup>. The reading of what remains unspoken allows for a deeper understanding of the fears, daily challenges, hopes, and life changes experienced by workers with long COVID as a result of their illness.

Here, the dialectical exchange between the researcher and the interviewees revealed the meanings attributed by the study participants, while also acknowledging the interpretive potential inherent in the narratives *per se*<sup>22</sup>. From the analysis of the narratives, the following meaning units emerged: "To work is to be useful": to whom? "Housework is always hers": the feminization of care and overload in long COVID; and "My fear is not being able to cope": returning to work after COVID-19.

In the interpretive process, studies from the social sciences in health were employed in an effort to understand the lived experience of long COVID among workers. However, it is equally important to acknowledge the researcher's standpoint: a psychologist, cisgender woman, white, a worker within the Unified Health System (SUS), and someone with professional, theoretical, and personal engagement with the subject matter. Accordingly, the researcher acknowledges that her own identification with certain race/color and gender categories may, to some extent, influence the analysis of the data<sup>23</sup>.

The study was approved by the Research Ethics Committee of the Faculty of Medicine at the Federal University of Bahia, under the Ethical Appraisal Submission Certificate (CAAE) No. 56502722.5.0000.5577 and Opinion No. 5.302.998. Participants signed the Informed Consent Form, the hospital institution housing the outpatient clinic provided authorization through a Term of Consent, and the guidelines established by Resolution No. 466/2012 of the National Health Council were strictly adhered to<sup>24</sup>.

This article was developed following the Consolidated Criteria for Reporting Qualitative

Research (COREQ) – a thirty-two-item check-list<sup>25</sup> designed to enhance the completeness and transparency of qualitative studies while ensuring their methodological rigor. As proposed by the COREQ checklist<sup>25</sup>, both the interviewees and the healthcare professionals from the outpatient clinic were present at the dissertation defense that gave rise to this study, to receive feedback on the findings.

#### **Results and discussion**

# Characteristics of workers affected by long COVID

The study subjects consisted of eight workers undergoing post-COVID rehabilitation, monitored at the psychology outpatient clinic of a hospital in the state of Bahia, Brazil. Below is a descriptive table.

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Name	Age	Gender	Race/color	Education	Marital status
Jorge	65	Male – cis	Brown	Incomplete elementary education	Common-law marriage
Lia	47	Female – cis	Black	Completed high school education	Single
Maria	52	Female – cis	Black	Incomplete elementary education	Single
Denise	44	Female – cis	Brown	Incomplete higher education	Divorced
Ricardo	54	Male – cis	Black	Incomplete elementary education	Married
Rosa	54	Female – cis	Brown	Completed higher education	Common-law marriage
Mabel	43	Female – cis	Black	Completed high school	Married
Neide	67	Female – cis	Black	Completed high school	Widow (husband died of COVID-19)

Source: Own elaboration.

In terms of employment, most participants worked in the informal sector, earning between R\$400 and R\$2,424 (two Brazilian minimum wages) – approximately USD 72–\$434 as of July 29, 2025. One woman reported having no

income and described herself as a caregiver for her husband.

As for COVID-19 infection, participants fell ill at different stages during the pandemic (between June 2020 and January 2022). Half

of them experienced symptoms consistent with COVID-19 on two separate occasions, with some cases confirmed by laboratory testing. Four of the eight participants were hospitalized and received treatment in intensive care units (ICUs), with two requiring intubations. The remaining four managed their illness at home during the acute phase, following the social isolation guidelines.

Four interviewees were on sick leave from their duties due to long COVID, while those who had returned to paid or unpaid work (four of them) reported difficulties performing their routine tasks. When asked whether they provided unpaid care for others, only women (six in total) identified themselves as caregivers.

The participants' self-reported long COVID symptoms primarily involved a range of physical and emotional issues affecting multiple body systems, including:

Fluid in my knee [...] I feel dizzy, tired, stomach ache [...] it affected my vision, it affected my lungs, it affected everything in my body. (Maria, 52, domestic worker).

After I had COVID, I haven't been able to work anymore because my physical condition changed a lot – I have many body aches, and now my head has started hurting too. (Ricardo, 54, automotive painter).

Based on the narratives collected, it was observed that the workers understood the physical, cognitive, and psychological resources necessary to perform their tasks, as they recognized the impacts of their health conditions, limitations, and possibilities within the work context. Overall, the participants emphasized the significance and centrality of work in their lives, the deterioration of formal employment during the pandemic, and informality as a marker of vulnerability, as illustrated below.

#### "WORKING IS BEING USEFUL": TO WHOM?

The participants considered work to be central in their lives, enabling dignity, a sense of usefulness and importance, as well as providing social recognition. In this regard, it is important to highlight that there are multiple conceptual perspectives<sup>26</sup> on the centrality of work, namely: ontological, the political centrality of workers, and in daily life.

According to Lessa<sup>26</sup>, work activities in daily life gain importance through the way labor power is allocated at different stages of the reproductive process, with an emphasis on social life and its interaction with people and nature – a point that emerges clearly in the following statements: "Work is life; it's doing your best and being recognized" (Lia, 47, office assistant). In another excerpt, Maria (52, domestic worker) says: "Work means everything to me! It used to bring me satisfaction [...] Today, I really miss my job... I want to regain my dignity".

For Bandini and Lucca<sup>27</sup>, work acquires value within societies as it serves as a space for both individual and collective recognition, contributing to the construction of identities, social inclusion, a sense of empowerment, and the establishment of cooperative and supportive relationships. The men interviewed considered work to be intrinsic to their existence: "Work is everything to me [...]. A man without work is nothing. How is he going to live? Depend on a woman?". This man, who was living with long COVID and began doing household chores while his wife worked outside the home, saw himself as unproductive because his work was neither visible to the public nor paid. His views on the subject align with those of Jorge (65, shopkeeper): "[...] work dignifies a man! If I have nothing to do, I feel like I have nothing".

These voices echo Zanello's<sup>13</sup> perspective, who also notes that the moral value of work for men sets the standard by which their dignity and honor are judged. In this study, the pandemic experience proved to be different for formal and informal workers. On this point, a formally employed worker recounted being pressured to work despite experiencing symptoms of COVID-19: "I had symptoms, and they said at work: 'if you don't have a doctor's note,

you have to work. If you stay home, you'll get a pay cut'" (Mabel, 43, receptionist).

The fear of losing her job reflects this worker's submission to domination and control by her employer, despite having a formal employment contract<sup>28</sup>. According to Carvalho and colleagues<sup>29</sup>, she is an 'invisible' worker, devalued by employers in both the realm of caregiving and the fight against the virus. Furthermore, as a Black woman, she experiences in both her body and subjectivity the harmful effects of racism<sup>14</sup>.

In line with this finding, a study published by the Oswaldo Cruz Foundation<sup>30</sup> revealed a lack of institutional support reported by 70% of the workers surveyed, and that 35.5% admitted to experiencing violence or discrimination in the workplace, in their neighborhoods, or during their commute to and from work during the public health emergency.

On the other hand, the vulnerability experienced by informal workers stands out. According to data from the Continuous National Household Sample Survey, conducted by the Brazilian Institute of Geography and Statistics (IBGE), informal workers saw a significant increase in vulnerability in the second quarter of 2022<sup>31</sup>.

Ricardo (54, automotive painter) found himself in this very situation. As a self-employed worker, he was unable to remain in home isolation before his COVID-19 infection and eventually fell ill. Afterward, the lack of social protection threatened his ability to continue with post-COVID rehabilitation, as he reported:

To come here [to the clinic], my wife has to give me money because I took an Uber. When I was discharged from the hospital, my family helped a lot, but once I started to improve a little, they stopped helping, and things got really difficult. [...] It's deeply embarrassing.

His rehabilitation process at the outpatient clinic was discontinued due to a lack of income. In this regard, it is worth noting that, especially for those who were hospitalized, recovery depends on post-COVID rehabilitation care<sup>32</sup>, which is a prerequisite for these workers to effectively return to the workforce.

The extended family, who provided financial support during the most critical phase of the illness, assumed that Ricardo was cured after his hospital discharge and the easing of the most severe symptoms. Consequently, they considered him fit to return to work and support himself, and therefore withdrew their financial assistance.

In Gadamer's work<sup>21</sup>, the term 'durée' is seen, which here refers to the ongoing nature of the individual's illness, contradicting the objective view of life perceived by outsiders. Thus, his vulnerable situation was worsened by the lack of social recognition of long COVID as a disabling condition.

The experiences of long COVID documented in this study underscore the critical need for a guaranteed minimum income to support workers' recovery. Yet, public policies addressing long COVID – and aimed at reducing the vulnerabilities these individuals endure – remain notably absent.

#### "DOMESTIC WORK, IT'S ALWAYS HERS": FEMINIZATION OF CARE AND OVERWORK IN LONG COVID

The naturalization of domestic work as an inherent role of women is not new in contemporary society. In Gadamer's work<sup>21(251)</sup>, the concept of Husserl's 'lifeworld' is evident:

[...] The world into which we are immersed simply by living our natural attitude, which, as such, can never become objective for us, but which represents the ground of all experience.

In this context, the narratives revealed a lack of recognition, even among the women interviewed, of domestic tasks as unpaid labor. Nevertheless, this lack of acknowledgment did not prevent Neide (67, retiree) from recognizing the importance of such work in the

fight against SARS-CoV-2: "I had to take care of the house [to prevent COVID-19]". Maria (52, domestic worker), by contrast, valued domestic labor primarily for its potential to generate income: "Knowing I'm going out and getting paid, that means everything to me!".

In this regard, the Pan American Health Organization<sup>33</sup> has stated that COVID-19 has had devastating health and socioeconomic impacts on women, as exemplified by the case of Maria (52, domestic worker), for whom paid domestic labor provided her both autonomy and empowerment.

According to Ricardo Ayres<sup>10</sup>, gender relations are social phenomena that make individuals vulnerable to certain experiences. In turn, Zanello<sup>13</sup> states that gender technology includes all means of communication and induction, such as magazines, movies, music, and soap operas, that encourage men and women to behave in specific ways. From this perspective, the woman is defined as a subject through the 'amorous and maternal construct'. In contrast, the man is determined through the 'efficacy apparatus', especially that which relates to sexual and labor-related virility. However, what does this imply?

The maternal construct is constituted by the naturalization of the idea that the capacity for procreation (having a uterus) is inherently linked to caregiving, thereby placing women at the center of, and subjecting them to, the social expectation of care<sup>13</sup>. In line with this dynamic, and as observed in this study, women live within a heterocentric framework that leads them to prioritize and care for others more than for themselves, exemplified by Denise, a woman who, despite living with two men, assumed sole responsibility for cleaning the house: "The work was heavy and extremely exhausting. I had to clean the house every day with bleach" (Denise, 44 years old, bakery manager).

This constitutes a depiction of the 'feminization' of care<sup>13</sup>, reaffirmed by the participants in the study when questioned about their unpaid caregiving practices – women

perceived themselves as caregivers for all (stepchildren, spouses, children), whereas no man reported feeling the same.

Furthermore, the psychological and physical impacts of the effort exerted by women in fulfilling domestic tasks were observed, as illustrated by the experience of an elderly woman (Neide, 67 years old, pensioner), whose body could not withstand the excessive demands: "I had to clean the house all the time! [...] I had to undergo surgery on both wrists due to the excessive strain from cleaning the floor".

This study demonstrated that COVID-19 is not a 'socially neutral disease', disproportionately affecting socially disadvantaged groups<sup>34</sup>. Neide exemplifies what has been reported in other research on long COVID regarding the impairment of individuals' ability to perform daily activities while living with the disease<sup>5,9,35</sup>.

Additional narrative excerpts reaffirm the feminization of care and the invisibility of domestic labor:

Housework is always hers [a woman]. (Jorge, 65 years old, shopkeeper).

Housework has always fallen on me - he doesn't help at all. After COVID, it got even worse [...] I became a workhorse! That's how I feel! (Rosa, 54, housewife).

The narratives reflected what other studies have identified regarding the burden and the feminization of care<sup>13,36</sup>, particularly among Black and low-income women. The vulnerability of the Black women included in this study following COVID-19 infection aligns with findings from a study conducted in the United States of America<sup>37</sup>, thereby highlighting the global scope of this issue.

In contrast to the findings of a study on the impact of family dynamics in the illness experience of public servants – which identified a process of family restructuring mediated by a space for negotiation and adaptation to the post-illness context and its resulting limitations<sup>38</sup> – this study found that Rosa, Neide, and Denise, in addition to coping with the effects of the illness in their own lives, continued to assume the role of caregivers.

The findings of this study indicate that during the COVID-19 pandemic, the burden of caregiving fell more heavily on women, particularly those affected by gender, racial, and class inequalities. This scenario is illustrated in the narrative of Maria (52 years old, domestic worker): "I felt more cornered and trapped; I endured humiliation because he was the provider, and I even felt ashamed". This finding aligns with the social division and hierarchy of labor that assigns responsibility to women for caring for the home, their children, and adult household members<sup>36</sup>, while simultaneously exposing them to numerous forms of violence.

## "MY FEAR IS NOT BEING ABLE TO": RETURNING TO WORK AFTER COVID-19

All participants in this study reported experiencing adverse impacts on their ability to engage in or return to work, both in formal and informal employment. When questioned about this, the majority expressed feelings of fear, stemming from a self-perceived functional impairment and the consequent decline in performance compared to the period before infection, as illustrated in the following narratives:

I am afraid of returning to work and not being able to do what I used to do. When I start cleaning the house, I have to stop and sit down. (Denise, 44, office assistant).

I was afraid they would say, 'No, you're not performing well enough, so you'll have to leave'. (Mabel, 43 years old, receptionist).

The narratives reveal that COVID-19 has extended its impact to impairments in performing daily activities, both inside and outside the home, and has generated fear of returning to work. In this regard, an international cohort study conducted by Davis et al.<sup>9</sup> in 56 countries

showed that 45.2% of respondents demanded a reduction in working hours and that 22.3% were not working due to long COVID.

According to Ribeiro and Léda<sup>39</sup>, in contemporary society, a person's value is determined by their social position; consequently, the concepts of person and commodity become synonymous, as expressed by Denise and Mabel. These workers were situated in conditions of heightened socioeconomic vulnerability, which suggests that work acquired even greater value as it represented the possibility of survival and sustenance.

These women's fears regarding their return to work after COVID-19 were amplified by the perception that their inability to perform as before constituted a threat to their survival. The role that labor occupied in their lives stood as a symbol of the exercise of autonomy, independence, and social engagement.

In this regard, it is important to consider that the official inclusion of COVID-19 on the List of Occupational Diseases occurred only in 2023, one year after these interviews were conducted<sup>40</sup>. This change increases the possibility of granting social security and labor rights through the establishment of a causal nexus. However, the lack of social recognition surrounding long COVID was evident in the narratives collected, particularly reflecting fears of functional impairment and income loss.

Lia's case effectively illustrates this phenomenon: after her sick leave benefits were discontinued, she returned to work but remained physically weakened and unable to perform her duties. When explaining her difficulties in performing activities of daily living to the occupational physician, the response she received was: "It could be psychological" [...] 'Have you seen a psychiatrist?".

This experience underscores the need to raise awareness and disseminate information about long COVID, particularly among healthcare professionals, as the literature indicates that the identification of persistent symptoms following influenza-like illnesses dates back to 1892, when Josephine Butler reported persistent fatigue after contracting the 'Russian flu pandemic'. Viral

infections such as those caused by the SARS-CoV-1 and MERS-CoV viruses have also been associated with the persistence of symptoms<sup>41</sup>, similar to what is observed in the cases of SARS-CoV-2 infection presented here.

The workers in this study who had already returned to work reported experiencing difficulty, tension, and fear. According to Jorge (65 years old, shopkeeper): "It's harder…! Sometimes I get anxious, feel unwell". The self-employed worker expressed his fear of failing in his role as a provider. It is profoundly destabilizing<sup>13</sup>. In this context, it is observed that the majority of workers with a history of COVID-19 present neuropsychological sequelae and reduced work capacity – a finding that is consistent with the results of this study<sup>42</sup>.

These narratives demonstrate that individuals living with long COVID appear to represent yet another contemporary challenge to the development and consolidation of a Return-to-Work Program<sup>7,43</sup> tailored to the specificities of this condition. Moreover, they emphasize how the morbidity and mortality associated with COVID-19 have given rise to both forms of resistance and significant emotional suffering<sup>35</sup>.

On this point, Mbembe<sup>44</sup> discusses the concept of necropolitics – that is, the politics of death. For him, it refers to contemporary forms of power and the ability to determine who should live and who must die. Failing to provide dignified conditions for returning to work or to ensure rights for vulnerable populations constitutes a mode of exercising necropolitics. Magalhães<sup>45</sup> notes that the policy of precarization serves as a means to advance the politics of death, particularly targeting specific groups, exemplified in this study, whose participants were Black or Brown individuals, the majority of whom were women.

## **Final considerations**

This study demonstrated that COVID-19 is not a 'socially neutral disease', disproportionately affecting socially disadvantaged groups. The experience of social vulnerability endured by the workers afflicted with long COVID in this study was expressed as a fear of job and income loss, rendering them further weakened. The intensification of the feminization of care and the increased burden on women during the pandemic were also identified as aggravating factors in the historical processes of oppression based on gender, race, and class.

The lack of social and political recognition of the physical, psychological, and social impacts of long COVID amplifies the vulnerability of the interviewees, which is the main contribution of this study. Accordingly, this research has highlighted the need for the development of intersectoral public policies that guarantee constitutional rights to health and social protection for individuals affected by long COVID.

Brazil must urgently advance with integrated policies on professional rehabilitation and Return-to-Work programs that address this still insufficiently explored issue within the Unified Health System, Social Security, and the Social Assistance System. Furthermore, the study emphasized the necessity of investing in the professional development of healthcare providers to effectively care for individuals suffering from long COVID and underscored the vital importance of supporting scientific research that advances this agenda.

#### **Collaborators**

Azevedo MN (0000-0003-1940-0947)\* contributed to the study design; data collection, analysis, and interpretation; drafting, critical revision, and approval of the final version of the manuscript. Araújo KL (0000-0001-9913-7485)\* and Lima MAG (0000-0003-3364-8439)\* contributed to the study design, data analysis and interpretation, critical revision, and approval of the final version of the manuscript. ■

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