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Inequality in the middle of a crisis: an analysis of health workers during the COVID-19 pandemic from the profession, race, and gender perspectives

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Abstract *Studies show that people in vulnerable conditions and some social groups such as women and black people have suffered more intensely from the COVID-19 pandemic impacts. This expression of inequality also manifests itself among healthcare workers, with greater exposure of some specific groups. This paper analyzes the effect of COVID-19 on health care workers and the working conditions in the Brazilian public health system, analyzed from professional, gender, and race perspectives. Data were collected from an online survey of 1,829 health workers conducted in March 2021. Indeed, we identified inequalities in health workers' experiences during the health crisis generated by COVID-19, which are marked by the profession of each worker and are traversed by their gender and race traits.*

Key words *Health worker, Inequality, Gender, Race, COVID-19*

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Introduction

Frontline workers represent the layer of public service professionals most exposed in a crisis situation[1], a context that usually overlaps with more substandard working conditions[2]. During the COVID-19 pandemic, frontline healthcare professionals are especially experiencing a backdrop of uncertainties and risks with the rapid global spread of SARS-CoV-2[3]. These health workers play a strategic role in coping with the situation during a health crisis, from the prevention of contagion to the treatment of infected people, which engages several professionals from different care levels. In the Brazilian context, the Federal Government's planning and coordination deficits to face the pandemic have further escalated the vulnerabilities experienced by these professionals[4,5].

Studies suggest that the erratic management of the pandemic has had severe consequences on the performance of health professionals working in the Brazilian Unified Health System (*Sistema Único de Saúde* – SUS) during the COVID-19 pandemic health emergency[6-10]. These consequences directly change how these professionals realize their work and relate to health service users[8]. First, the very face-to-face nature of frontline work has made it a risk, given the COVID-19 transmission characteristics[1]. Secondly, as the stakeholders most capable of tackling the disease directly, health professionals faced a critical increase in demand in a risky work situation, without adequate resources and under enormous pressure. Research has already shown the impacts of this setting on the mental health of workers[11,12]. Thirdly, due to the extent and duration of the pandemic, these professionals are being exposed to these critical conditions for an extended period without rest or relief and, while combating the pandemic, providing other health care services – such as vaccination and regular health conditions that must be met.

All this shows the backdrop of pressure and criticality in which health professionals have been working since the onset of the COVID-19 pandemic, which overly impacts physical and mental health. However, if it is evident that the pandemic affects everyone and, more critically, health professionals, it is also evident that these effects are unequally manifested among social groups. Researchs show that people in vulnerable conditions have suffered more intensely from the consequences of the pandemic[9,10]. They also show that social groups such as women and blacks also suffer more from these impacts because women are burdened by daily inequalities and the overload of domestic work imposed by the pandemic, which is also manifested in female health professionals. The pandemic also exacerbated the situation of the Black population, already exposed to more vulnerable social and economic conditions – research shows, for example, that black health professionals received less Personal Protective Equipment (PPE), training, and support[13].

Moreover, we already have evidence that some health professions were more impacted than others in the COVID-19 pandemic. The Community Health Workers/Community Endemic Workers (CHW/CEW) experienced greater vulnerability in accessing resources and they were consequently very scared to implement their work[6,14]. On the other hand, nursing workers have endured high workloads during the pandemic, which leads to high exposure and higher physical and mental illness than other professional categories[15-18].

This paper analyzes how the COVID-19 pandemic affected Brazilian health professionals, identifying the different perceptions of the crisis from a perspective of gender, race, and frontline professions. In this sense, we question: In a crisis, how do race, gender, and profession inequalities affect (i) the organizational conditions for the work of frontline professionals; (ii) the feelings experienced by these workers; and (iii) the exposure to violent situations.

Methods

We conducted an online survey from March 1 to 20, 2021, with 1,829 health professionals working on the frontline of the SUS, through a convenience, non-probabilistic sampling. This research format was also used by other researchers worldwide who aimed to investigate the conditions of health professionals in the fight against COVID-19[5,19,20] and the context of past pandemics[21]. Given the emergency of the pandemic and the lack of accurate data on the workforce profile, we could not run a random sample. Pandemic conditions of physical distancing and the need for rapid evidence facilitate greater acceptability of convenience sampling[22]. In this sense, we do not intend to make statistical inferences in this paper but rather look at the data from its interpretative complexity. The data collection instrument was based on the literature on health workforces and health emergencies[20,21]. It was subsequently peer-reviewed by academics, experts, and volunteer health professionals. The questionnaire

consisted of 52 different questions (binary, multiple-choice, open-ended, and Likert scale) and aimed to capture respondents' perceptions of their frontline experiences against COVID-19.

Two methodological paths were chosen for the systematic analysis of the data: descriptive statistics of binary indicators (Yes or No) from the disaggregation of the variables of race, gender, and profession; the identification and content analysis[23] of the open-ended answers referring to the reason attributed by the respondents to the feeling of unpreparedness at work. This issue identified six principal codes: lack of support in the workplace, lack of people's awareness, lack of support from authorities, disease spread, fear/uncertainty/insecurity, and lack of reliable data about the disease. As with the multiple-choice, closed-ended questions, the incidence of responses for each analyzed group was identified and compared from these codes.

The issues considered for this work focused on organizational aspects, such as material issues (access to PPE, training, and access to testing material) and institutional support (support from supervisors), and psycho-emotional conditions (emotions, perceived impact on mental health, and support). We filtered the answers by the respondents' professions. Thus, the combined analysis of these variables in quantitative and qualitative data allows us to understand how the gender and race of frontline professionals and their professions affect how they experience the COVID-19 pandemic (Chart 1).

Regarding the ethical aspects of conducting the research, the respondents' participation was voluntary, and participants could withdraw freely during the completion of the questionnaire. Answering open-ended questions was optional. Respondents were not identified and not exposed to any risk. The Human Research Ethical Compliance Committee of the Getulio Vargas Foundation (CEPH) approved the research under protocol number 099/2020.

Results

The respondents' profile was structured by sex, race, profession, declared service, work region, work seniority in years, and age group. According to Table 1, looking at the general profiles of the sample, 78.4% of the respondents are women against 21.6% of men. Among women, 47% self-declared as white, 50.4% black, and 2.6% were from other races. Among men, 41.6% self-identified as white, 56.6% identified as black, and other races totaled 1.8%.

Regarding the profession, CHW/CEW are the majority of respondents, both among men (59.6%) and women (49.6%). The second position varies between genders, with nursing workers among women (20.3% of women) and physician among men (14.7% of men). The physician total 9.8% and nursing workers 6.4%.

Although the focus of this paper is to look at the interfaces between gender, race, and profession in the exposure in the current crisis, other elements better characterize the research sample. Most respondents, both men and women, reported being between 40 and 49 years old (35% and 36.2%, respectively), while only 6.1% of men and 4.3% of women were over 60 years old. Regarding the region of the country, the respondents were distributed, on an increasing scale, as follows: among women, 4.9% are in the North, 6.3% in the Midwest, 15.7% in the South, 33.3% in the Southeast, and 39.8% in the Northeast. Among men, 4.5% were in the Midwest, 5% in the North, 10.2% in the South, 23.9% in the Southeast, and 56.4% in the Northeast. The respondents' concentration in the Northeastern states is justified by the overrepresentation of CHW/CEW among the research participants.

Once the profiles that underpin the sample have been identified, in general terms, it is possible to analyze the impacts of these professionals during the fight against the COVID-19 pandemic in Brazil. We organized the results around three axes: (i) organizational conditions; (ii) mental health and emotions; (iii) exposure to violence. Based on these axes, we reconstructed the impact of the emergency context on the lives of frontline health professionals.

Ensuring an articulated perspective facilitates understanding the complexities underlying the work of frontline health workers. Based on these variables, we could identify essential dimensions in the development of the work of these street-level bureaucrats: material and structural aspects for the good development of their work; subjective and psychological aspects, which qualify the working conditions of these professionals; and exposure to violence experienced by these workers (Table 2).

Organizational conditions

The first dimension identified concerned organizational conditions, understood here as the most direct conditions for action, such as access

Chart 1. Themes and questions used.

Themes	Questions	Variable type	Possible answer
Organizational conditions	Do you feel prepared to address the coronavirus crisis?	Closed-ended and binary	Yes/No
	What else contributes to you feeling that way [concerning preparation]?	Open-ended	Open-ended
	Have you received the necessary equipment to protect yourself?	Closed-ended and multiple-choice	- I did not receive - I received a few times - I received continuously
	Have you received training to address the COVID-19 crisis?	Closed-ended and binary	Yes/No
	Did you receive testing material at your workplace?	Closed-ended and multiple-choice	- I did not receive - I received a few times - I received continuously
	Does your direct supervisor support you?	Closed-ended and binary	Yes/No
Emotions and mental health	Are you afraid of the Coronavirus?	Closed-ended and binary	Yes/No
	Do you believe your mental health has been affected by the pandemic?	Closed-ended and binary	Yes/No
	Did you receive any support to take care of your mental health?	Closed-ended and binary	Yes/No
	Who do you turn to when you have mental health problems?	Closed-ended and multiple-choice	- Family - Mental health professionals (psychologists, psychiatrists) - Religious guide (pastor, priest, African religion priest, or other) - Friends - Coworkers - Boss/Supervisor - Nobody - Other
	What personal emotions did you/do you feel during the pandemic?	Closed-ended and multiple-choice	- Fear - Distance/coldness - Indifference - Sadness - Hopelessness - Loneliness - Empathy - Rage - Stress/anxiety - Recognition - Hope - Fatigue - Other
Exposure to violent situations	Were you morally harassed during the pandemic?	Closed-ended and multiple-choice	- No - Yes, it is the same as before the pandemic - Yes, it increased with the pandemic - Yes, it started with the pandemic
	Who abused you?	Closed-ended and multiple-choice	- Boss - Colleagues - Rulers - Service users - Family members of users - People on the streets - Others

Source: Authors.

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Table 1. Profile of respondents.

Total respondents	ACS/ACE	Physicians	Nursing workers	Other
	N (%)	N (%)	N (%)	N (%)
	945 (51.7)	**198 (10.8)**	**315 (17.2)**	**371 (20.3)**
Gender				
Female	709 (75,0)	140 (70,7)	290 (92,1)	291 (78,4)
Male	235 (24,9)	58 (29,3)	25 (7,9)	76 (20,5)
Did not answer	1 (0,1)	0 (0)	0 (0)	4 (1,1)
Skin color/race				
White	265 (28)	156 (78,8)	185 (58,7)	230 (62)
Brown	557 (58,9)	32 (16,2)	102 (32,4)	105 (28,3)
Black	109 (11,5)	1 (0,5)	22 (7)	19 (5,1)
Yellow	10 (1,1)	8 (4)	3 (1)	12 (3,2)
Indigenous	3 (0,3)	0 (0)	3 (1)	1 (0,3)
Did not declare	1 (0,1)	1 (0,5)	0 (0)	4 (1,1)
Region				
Midwest	50 (5,3)	12 (6,1)	25 (7,9)	22 (5,9)
Northeast	643 (68)	23 (11,6)	51 (16,2)	75 (20,2)
North	62 (6,6)	2 (1)	15 (4,8)	11 (3)
Southeast	103 (10,9)	146 (73,7)	151 (47,9)	173 (46,6)
South	87 (9,2)	15 (7,6)	73 (23,2)	90 (24,3)
Service				
Primary Care	945 (100)	44 (22,2)	106 (33,7)	123 (33,2)
Specialized Care	0 (0)	48 (24,2)	37 (11,7)	68 (18,3)
Hospital Care	0 (0)	86 (43,4)	141 (44,8)	76 (20,5)
Management	0 (0)	2 (1)	3 (1)	10 (2,7)
Others	0 (0)	18 (9,1)	28 (8,9)	94 (25,3)
Age				
19-29 years	51 (5.4)	21 (10.6)	32 (10.2)	46 (12.4)
30-39 years	278 (29.4)	49 (24.7)	124 (39.4)	118 (31.8)
40-49 years	402 (42.5)	43 (21.7)	96 (30.5)	115 (31)
50-59 years	195 (20.6)	53 (26.8)	51 (16.2)	69 (18.6)
60-69 years	18 (1.9)	27 (13.6)	11 (3.5)	23 (6.2)
70-79 years	1 (0.1)	5 (2.5)	1 (0.3)	0 (0)

Source: Authors.

to supplies and adequate training to work during the crisis. To this end, respondents were asked about their feeling of preparedness, receipt of supplies and testing, and the support offered in the work environment to perform during the crisis. These elements help to configure the working context of professionals and are directly related to the work of superiors and authorities, which ultimately impacts their work.

We asked respondents whether they felt prepared to work during the crisis. We identified a clear difference between the different race and gender profiles since white men showed a feeling of preparedness in 43.9% of the responses, more than double the responses of black women, who indicated preparedness in only 21.78% of the answers. Professions evidenced a certain balance in the feeling of preparedness among physicians, nursing workers, and other health professionals, ranging from 43.43% to 40.63%. However, the feeling of lack of preparedness among the CHW/CEW differs from the other careers, as they indicated that they felt this way in only 21.06% of the responses. The fact that black women are the majority among CHW/CEW shows the overlapping vulnerabilities that currently come into play.

I've had it twice, and they didn't give me the necessary assistance. They teased me when I needed it. I had 25% of both lungs compromised, and I was alone to take care of myself. They didn't believe

Table 2. Data per race, gender, and profession.

	Black women	White women	Black men	White men	ACS/ ACE	Nursing workers	Physician	Others
Does not feel prepared	78.2%	66.4%	65.0%	56.1%	79.0%	59.4%	56.6%	63.1%
Received PPE on an ongoing basis	42.6%	57.9%	38.1%	57.9%	34.1%	69.5%	64.1%	63.3%
Received training	20.9%	31.6%	22.0%	43.9%	14.5%	44.8%	46.0%	35.6%
Received testing on an ongoing basis	11.5%	18.3%	13.9%	22.6%	9.3%	24.7%	26.7%	16.4%
Received support from superiors	45.9%	47.2%	52.0%	53.7%	44.8%	50.8%	50.5%	51.8%
Claims to be afraid of COVID-19	89.6%	87.8%	83.9%	84.2%	90.1%	82.9%	78.8%	90.0%
Mental health was affected	81.7%	85.4%	64.6%	70.1%	75.1%	85.1%	85.4%	86.3%
Harassment increased during the pandemic	18.0%	19.0%	17.0%	18.0%	16.3%	24.4%	17.2%	20.2%

Source: Authors.

me, and one physician said that the results were false (Nursing workers, female, white).

[I don't feel prepared because] today, even with more information than at the beginning of the pandemic, this crisis is far from over because the population does not take care of itself, and this government is delaying the vaccine so much... It leaves me like this. (CHW/CEW, woman, brown).

When questioned about the reasons that make these workers feel this way, we identified that, among those who responded that they did not feel prepared, the most recurrent reasons were (i) *lack of support in the workplace*, which includes lack of supplies, testing, training, overwork, among other issues related to the organizational environment; (ii) *people's lack of awareness* of not following contamination prevention measures, such as mask use and social distancing; (iii) *lack of support from the authorities*, in which the professionals indicate the lack of governmental support in the three federative levels; (iv) *dissemination of the disease*, which refers to the increase in the number of cases and deaths when collecting data, as well as the aggressiveness and unpredictability of its effects; (v) *fear/uncertainty/insecurity*, as feelings that generate instability when acting; (vi) *lack of reliable information on the disease*, which includes the absence of medicines with proven efficacy and of safe information to guide the best way to act.

It is interesting to highlight the variation of these main reasons for unpreparedness between race and gender groups. While white men indicated *dissemination of the disease* and *lack of support from the authorities* as the main reasons for unpreparedness, black women reported more *lack of support in the workplace* and *a people's lack of awareness*, which shows the most frequent challenges for each social group, where black women are more exposed to work environment issues. In contrast, white men report more external issues, denoting that the organizational issues may not be so substandard.

[I don't feel prepared for] the State's lack of minimal pandemic control strategies (CHW/CEW, male, white).

[I don't feel prepared because of] the lack of PPE; also, because the health team does not tell the health workers who the positive patients with the virus are. We know who these patients are from the patients themselves or neighbors, exposing us to more risk (CHW/CEW, female, black).

The difference between attribution of unpreparedness more related to external causes in contrast to internal issues is also evident among the professions. While physicians and other professionals indicated the *lack of support from the authorities* as the main reason for their feeling of unpreparedness, this justification is only the third for CHW/CEW and nursing workers. An-

other point is fear as a justification for the feeling of unpreparedness, which is more prominent among nursing workers, only behind the *lack of support in the workplace*. It was only the fourth or fifth justification in the other careers. Indeed, the contact of nursing workers often ends up being more intense and prolonged with infected patients, which could justify the great concern with organizational aspects, such as access to supplies, combined with fear due to the intense exposure.

The last element that stands out is the expressive attribution by the CHW/CEW and 'other professionals' of unpreparedness to *people's lack of awareness* regarding the adoption of preventive and protective measures. This justification does not even appear among the top five among physicians and nursing workers. As most of CHW/CEW´s work is prevention, providing information, especially outside the hospital or outpatient environment – which can also be the concern of service managers, in situations of conflict in health units, or to reduce demands – these professionals end up having to deal more with situations of non-compliance with health measures in routine contexts.

On the other hand, the feeling of unpreparedness is directly related to the resources, materials, and knowledge these professionals have to work with. Material aspects are essential supplies for working on the frontline, especially in coping with a highly contagious disease. In the research, we investigated the receipt of personal protective equipment (PPE), such as masks and alcohol gel, and testing during the crisis, also identifying its frequency.

Continuously, 49.4% of respondents said they received PPE, and 15.4% indicated they had received testing, while 6.2% reported not having received PPE and 38.3% had not received testing during the last year of the pandemic. This complete lack of testing during the pandemic appears balanced between careers. However, access to PPE highlights a situation of greater inequality. While the continuous distribution of this equipment was indicated by 69.5% of nursing workers, only 34.1% of CHW/CEW stated the same thing. Once again, CHW/CEW have much less access to adequate working conditions.

From the perspective of race and gender, we identify a hierarchy between the groups in receiving equipment and testing, with marked racial inequality. White men had a proportion of 57.93% for receiving equipment and 22.56% for testing, while black men scored 38.12% and 13.9% and black women 42.58% and 11.51%, respectively. As can be seen, the rates of access to PPE for white men are much higher than for black people, evidencing a layer of inequality in this access.

Lack of PPE, knowledge of the virus, medical and infectious disease professional interest, and supplies and medicines. Municipalities are more concerned with setting barriers than treating the population and professionals (CHW/CEW, woman, black).

Besides the material dimension, receiving training to guide action during the crisis and support from the leadership can be decisive for the work of these professionals in this context. Thus, regarding receiving training to guide action during the crisis, CHW/CEW indicated that they received less training than other careers, 14.5%, less than a third of physicians (46%). Leading the question, 43.9% of white men indicated that they had been trained, while black women reported training in only 20.94% of the answers.

Concerning the feeling of support from the direct superior to work, once again, the CHW/CEW showed to be more exposed than other careers, albeit with a more negligible difference from the other categories. Looking at the extremes, we identified that 'other professionals' felt more support from their bosses in 51.8% against 44.8% of the CHW/CEW. Regarding the other social markers, the difference between men and women stands out the most since women feel less supported by their bosses than males, 46.57% to 52.79%, respectively.

So far, regarding organizational aspects and the more direct frontline work conditions, what we show is that black women and CHW/CEW were the groups most abandoned by organizations at that time, as already mentioned, with an overlap between the individuals that make up these two groups. The organizational conditions offered to frontline professionals relate directly to the emotions felt during the crisis and their impact on the mental health of these workers. This aspect will be analyzed next.

Emotions and mental health

The first question asked to all respondents was whether they were afraid of COVID-19, and most respondents answered "yes" (87.6%). Among the professional categories, the CHW/CEW and the 'other professionals' (psychologists, service managers) proportionally indicated more fear (90%) than nursing workers (82.9%) and physicians (78.8%). The most significant differ-

ence was between black men (83.86%) and black women (89.6%) among social groups.

The gender difference is significantly marked when we asked about the impact of the crisis on the mental health of professionals. Approximately 83.7% of women and 67.3% of men stated that mental health was affected during the pandemic, which shows a gap of 15.4% between genders. White women are the most impacted (85.4%) among social groups and 'other professionals' among careers (86.3%). This time, the CHW/CEW showed to have been less affected, which can be explained by CHW/CEW work outside the hospital sphere, the most critical place in terms of virus exposure.

Directly related to the impact on mental health, we also asked about the support they received to take care of their mental health. Knowing whom these workers turn to in order to address the effects of the pandemic on mental health is an essential element in understanding their work context. In the responses, the family was the most indicated in both genders (43.65% for men and 41.47% for women), followed by therapists and psychologists (36.55% for men and 38.04% for women), and friends (22.34% for men and 27.41% for women). Approximately 17.77% of men and 14.83% of women indicated not seeking help from anyone.

Looking at race, we identified that black men resort to religion more than other groups to take care of their mental health (17.04%), in sharp contrast with white men (7.93%). Moreover, white people access therapists and psychologists slightly more than black people: while 40.92% of white women access these professionals, 35.43% of black men do. As for those who do not seek anyone to take care of their mental health, the incidence among white men stands out compared to the other groups since they score 20.12% against 14.70% of white women.

I feel as if I didn't have any support from management regarding my mental health. Not only mine but that of the entire team (CHW/CEW, woman, brown).

Another aspect directly related to the mental health of frontline professionals in a crisis is the feelings that emerge in this context. Respondents answered what personal emotions they felt most while working in the pandemic, in which they could mark more than one alternative. The results show a notable gender difference. In general, women report more feelings than men, so almost all feelings are reported more by women, except for three, namely, *detachment/coldness*, in which men scored 26.65% and women 20.49; *recognition*, in which men scored 17.26% and women 11.19%; and *indifference*, with 11.17% among men and 8.39% among women. In contrast to the most reported feelings (anxiety, fear, and tiredness), all led by women, show that men are less emotionally affected by the daily work routine or expose their vulnerability less.

We observed a contrast between white women and black men at the extremes when articulating the ethnic analysis. The former is the group that most indicated feelings during work in the pandemic. We can observe this difference clearly in the two most reported emotions since *stress and anxiety* were reported in 77.23% of the responses of white women against 43.95% of black men; and *fatigue* marked 69.20% for white women and 37.67% for black men. We observe a difference of more than 30% between the two groups, which shows gender-race intersectionality that shields black men even more from the emergence of feelings during the crisis.

Exposure to violent situations

The last element that helps complete the analysis refers to exposure to a violent situation. In a context such as a pandemic, moral harassment of health professionals can be a factor that enhances the risks to which they are exposed, affecting the physical well-being and mental health of these workers. The group interviewed that most indicated that they had suffered moral harassment at that moment were nursing workers with 42.2%, about 11% more than other careers (CHW/CEW – 31.6%; physicians and other professionals – 31.8%). We should highlight one element. Although nursing workers make up the career most exposed to harassment, this was the category that least reported that harassment started in the pandemic, which denotes that this is a condition to which these professionals are usually more exposed.

We observe some differences from a gender perspective, although women are slightly more vulnerable. Around 19% of women and 17% of men responded that they experienced harassment and that it increased in the pandemic. Among those who did not experience harassment, men appeared to be slightly less exposed (68%) than women (66%). There are no significant differences when crossing these data also with race.

We also asked respondents to report the main harassing agents. Among all respondents, 45.5% were harassed by service users and 44.7% by man-

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agers. White men were the ones who indicated that they suffered less from it (7.31% and 10.36%, respectively), at a considerably lower level than white women (15.77% and 18.15%), the most harassed.

With the pandemic, I have to walk 7 km a day to work because they removed the bus that passed near my house. I could work close to home, but my boss does not allow me to switch teams just to punish me (CHW/CEW, white woman).

Users desperate for the vaccine, blaming me for the lack of it, attacked me with profanity and insinuations of stealing the vaccine (CHW/CEW, female, white).

I've heard complaints from users with humiliating words for not understanding that we didn't have more beds available. The Hospital director has already called my team lazy because we do not accept expanding our duties without increasing the team (nursing workers, male, brown).

The main element that marks the difference between the genders is not the harassing agent but how this harassment is manifested. Mainly among CHW/CEW and nursing workers, women reported that their competence was questioned and their work was not valued, barely found among men. The managers' lack of understanding of family issues also appears in the women's accounts, indicating that dedication to caring for others prevents them from taking care of themselves.

I am a nurse at the service, and I repeatedly heard from users and family members that I was not qualified for care, that I was trying to pretend to be a physician or that I was there to "prevent" medical care. Countless statements disqualifying my work and my study over the years. Insinuations and direct statements that I would have little knowledge to guide about Coronavirus and other diseases (nursing workers, woman, white).

Discussion

In a health crisis marked by scarce resources and lack of clarity on how to proceed, frontline health professionals are expected to face challenges[1]. Furthermore, these workers may probably be more exposed to the pandemic's adverse effects, while they are fundamental for the survival and care of the population and overcoming the crisis. The crisis was also faced by a SUS with its structural problems, exacerbated by the recent precariousness and cut of resources to which it has been subjected[24].

Frontline health professionals already have very different contexts and degrees of structure, salaries, and privileges from which they have worked in this crisis. The Brazilian public service is unequal regarding the branches of government and federative levels[25]. As a reflection of society, looking from social markers, we identify other layers of inequalities within the State, which place men and whites in the highest positions than women and blacks, who live with worse working conditions and wages.

These inequalities are also intertwined concerning the profiles of the different professions in each area of the State[26]. We noticed that black women occupy more precarious work positions within the dynamics of the SUS. Most of these women are CHW[13]. Different vulnerabilities traverse these professions during the pandemic. In this sense, the intersectionality between gender, race and class structures socioeconomic inequalities and defines the dynamics of inequalities experienced by health professionals, especially in a health crisis[13,27-29].

The findings of this research contribute to understanding the inequality reproduction dynamics in an intertwined way as a determinant for the working conditions of frontline professionals. The crisis exacerbates existing structural problems and determines what resources these workers will have at their disposal with this new layer of issues imposed by COVID-19 and the political conduct of its confrontation.

The results show that inequalities materialize differently in several contexts regarding the health emergency. Because of their recent professionalization[30], CHW/CEW are the professionals with the lowest level of structure to work[31], which is reflected in deficient access to material resources, lower support from managers, and lower support to take care of their mental health. At the same time, they indicated that their mental health was less affected and that they were slightly less exposed to harassment as they are professionals who did not work directly in hospitals, places with greater exposure to contamination and, thus, more significant pressure.

Although we know that Brazilian medical practice can be exhausting[32,33], the working conditions of nursing workers and CHW/CEW are even more complicated[14,34]. Physicians already had a better work structure than other professionals before the pandemic. From the perspective of the existing imbalance in the health workforce[35], the low incidence of fear among physicians compared to other professional cate-

gories (the only one below 80%) shows the more significant security that this professional category enjoys vis-à-vis other health categories.

Given the context of increased harassment, it is crucial to underscore that nursing workers suffered the most from it, while they were the category that least reported new harassment types; that is, harassment only escalated or continued as it was. This situation raises a warning about the importance of discussing harassment and organizational violence among nursing workers, which points to an element to be analyzed in-depth in future research.

As can be seen so far, some elements start from the professional characteristics of frontline workers and explain some dynamics and conditions imposed by the pandemic. However, racial and gender markers are intertwined with professional careers and are relevant to understanding the dynamics of professionals' reactions and perceptions[9,13,27,31].

Without considering these different dimensions, one cannot understand the pandemic frontline's complexity. However, the results show that there are more relevant dimensions depending on the different aspects related to the working condition of these professionals. The role of professional activity gains relevance when it comes to organizational conditions. As they are in more significant contact with infected patients, nursing workers show greater concern with organizational aspects, such as access to supplies and fear due to the intense exposure.

At the same time, since the CHW/CEW were not centrally included in the confrontation of the pandemic, these professionals ended up having less support of information and supplies to work than other categories. These professionals also report a more significant concern with raising the population's awareness of prevention, a central issue for their CHW/CEW activity.

Thus, what we can state is that, regarding organizational conditions, which involve material supplies and support from managers and information, professional roles gain relevance for the experience of each professional. Notwithstanding this, the overlap between CHW/CEW and black women as layers that impose the experience of greater vulnerability in the COVID-19[13] health crisis cannot be disregarded. However, as the debate on inequalities must increasingly be based on inequality of results[36], one cannot overlook that black women felt proportionally more than twice as unprepared as white men. Furthermore, these women had access to less than half of the testing and training than they did.

On the other hand, race and gender markers seem to have the most significant impact on issues related to mental health and emotions, and harassment, although professional issues are relevant too. In this way, identity markers impose themselves in the mental health and violence dimension. One of the typical forms of expressing violence in the work environment is moral harassment, conceptualized as behaviors of persecution, humiliation, abuse, neglect, insults, and accusations, among other manifestations that attack workers' mental health and subjectivity. This violence usually occurs in a context of substandard work, exacerbated by the search for new organization forms[37]. As found in other studies[9,10,38,39], women recognize feeling more fear and more significantly impact mental health than men. When the crisis emotionally reflects on the lives of these workers, how they address it also seems to be a significant influence of these social markers. Women and white people seek more professional help, while men use more family or no one. When the escape valve found is religion, the notable difference in percentages between black and white men also shows the racial crossing in masculinity. On the other hand, white men are the ones who mostly say they do not turn to anyone, which is also a trait of male whiteness power space, in which vulnerability tends to be concealed.

Lower exposure to violence makes it easier for white men to hide their weaknesses. Naturally, white men are less harassed, as they are already assured social respect from the outset. Women suffer more from this type of violence because the range of harassment is also broader. While men are less questioned about their competence and less affected by domestic responsibilities, some women work among these already naturalized abuse mechanisms[9].

Frontline work involves material, psychological, and power dimensions[40]. The articulation of these three dimensions completes the experience of professionals during a crisis, in a integral view[1]. Precisely for this reason, we aimed to identify how these different markers of each worker build their routine, reinforcing and redesigning their social role and hierarchical position. The inequality layers already in place in the SUS served as a lens to project the setting of each group of workers during the health crisis.

The crisis exacerbated inequalities and brought to the fore the relevance of profession, gender, and race in the experience of health workers in the pandemic[35,41,42]. This framing makes the mere perception that black women are the most

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vulnerable and white men are more privileged even more complex. We can identify patterns and dynamics faced by frontline professionals, sometimes informed by racialization, health professional structure characteristic, or gender relationships, without giving up any of these dimensions. The vulnerabilities of health professionals who work on the frontline must be read from the overlap of issues that encompass inequalities between professions, gender, and race.

Conclusion

This paper analyzed the incidence of the COVID-19 pandemic on workers in the SUS. The results presented and discussed show that inequalities among health professionals are marked by the profession of each worker and traversed by their gender and race traits. Thus, data suggest that the pandemic affected health professionals differently from a perspective that crosses profession, gender, and race. In this sense, we observed essential inequalities among health workers exacerbated by the pandemic.

These results emphasize the importance of analyzing the governance of the health workforce during the crisis that defines the COVID-19 pandemic. Therefore, pre-existing vulnerabilities deteriorate, and individual inequalities can also reproduce structural inequalities. In this context, health workforce policies must pay special attention to how vulnerable professions and social groups, such as women and blacks, are affected in their work and how these inequalities should be managed. It is crucial to understand better how these inequalities work, their intersectionality, and their impact on the health workforce's dynamics.

Although this paper has methodological limitations, such as using non-randomized data and descriptive data analysis, the results presented and discussed lead us to essential reflections on the inequalities among health professionals during the pandemic, leaving us with questions that could be the onset of new studies. These questions are: will inequalities exacerbated by the COVID-19 pandemic be sustained in the post-pandemic context? Moreover, how do we face individual and systemic inequalities in the SUS structure?

Collaborations

G Magri, M Fernandez, and G Lotta participated in the conception, the design of the manuscript, the writing of the article, and the approval of the final version.

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