

# Female health care professionals and repercussions of the Covid-19 pandemics: is it harder for them?

*Mulheres profissionais da saúde e as repercussões da pandemia da Covid-19: é mais difícil para elas?*

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**ABSTRACT** The Covid-19 pandemic promoted significant changes in everyone's daily lives, but among health professionals, those were even more profound. It impacted personal, social and family relationships, bringing feelings of helplessness and insecurity, aggravated by the disastrous confrontation of the pandemic by the Federal Government in Brazil. The health workforce has been identified in the literature as mostly female. The social role of gender, added to the current context, aggravates the implications of the pandemic for women. This study analyzed the repercussions of the Covid-19 pandemic on different profiles of health professionals in the State of São Paulo. This is a descriptive study which used a semi-structured, online, validated questionnaire. The processing of quantitative data was made using Stata 13.0 software. Answers were compared according to the declared gender. The findings corroborate the literature on the prevalence of significant burden on health professionals and the discrepancy between burden factors identified by gender. Household overload was more present among women, reinforcing that they are unevenly affected. This situation weakens mental health, brings changes in mood, sleep, cognition, anxiety, physical discomfort, and pessimism. Our results reinforce the need for a gender perspective in actions and responses to the consequences that will arise as the pandemic advances and in the recovery of society in the post-pandemic period.

**KEYWORDS** Covid-19. Pandemics. Health personnel. Gender and health. Mental health.

**RESUMO** A pandemia da Covid-19 promoveu mudanças significativas no cotidiano de todos, mas entre os profissionais da saúde, estas foram ainda mais profundas. A crise sanitária impactou relações pessoais, sociais e familiares, trazendo sensação de desamparo e insegurança, agravadas ainda pelo desastroso enfrentamento da pandemia pelo governo federal no Brasil. A força de trabalho na saúde tem sido apontada pela literatura como majoritariamente feminina e o papel social de gênero, somado ao contexto atual, agrava as implicações da pandemia para as mulheres. Este estudo analisou as repercussões da pandemia da Covid-19 sobre diferentes perfis de profissionais da saúde no estado de São Paulo. Estudo descritivo, utilizou questionário semiestruturado, on-line validado e o processamento dos dados quantitativos foi realizado pelo software Stata 13.0. Foram comparadas as respostas de acordo com o gênero declarado. Os achados corroboram com a literatura acerca da prevalência importante de sobrecarga de profissionais da saúde, e da discrepância entre fatores de sobrecarga apontados por gênero. A sobrecarga doméstica foi mais presente entre mulheres, reforçando que estas são afetadas de maneira desigual. Essa situação fragiliza a saúde mental, traz alterações no humor, sono, cognição, ansiedade, desconforto físico e pessimismo. Os resultados reforçam a necessidade de um olhar de gênero para as ações e respostas às consequências que surgirão à medida que a pandemia avança e na recuperação da sociedade no pós-pandemia.

**PALAVRAS-CHAVES** Covid-19. Pandemias. Pessoal da saúde. Gênero e saúde. Saúde mental.

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## Introduction

Declared on March 11, 2020, by the World Health Organization (WHO)<sup>1</sup>, a pandemic caused by Sars-CoV-2, the etiological agent responsible for the Covid-19 disease, has affected people's lives in different ways. Initially, uncertainties brought by the virus regarding the form of transmission, speed of spread and lethality were huge problems in combating Covid-19. At first, around the world, non-pharmacological measures were defined in an attempt to contain the virus circulation, reducing its transmission. Infection prevention measures, such as the use of masks, or social distancing, hand hygiene, environmental devices, extensive testing for Covid-19, road-blocks and border closures were adopted. These protective measures are encouraged by the WHO to this day<sup>2</sup>. In view of the sanitary crisis established in Brazil and a still low vaccination rate, until July 2021, the non-pharmacological measures remain of great importance in containing the virus.

While countries in Europe and others, such as New Zealand, controlled the pandemic early<sup>3</sup> with measures of distancing, closing borders and mandatory use of masks, Brazil performed not only poorly, but intentionally inefficient in combating the pandemic. The country from Oceania reported, since the beginning of the pandemic until July 2021, only 26 deaths<sup>4</sup>. In Brazil, with the denial beliefs disseminated by the federal government, the low adherence to isolation measures and the devaluation of the use of masks, we had one of the worst epidemiological curves in the world, with maintenance of high moving averages of cases and deaths for a long period. Disputing the worst data with countries like the United States and India, Brazil is currently the third worst country in the absolute number of cases registered in the world and the second in the ranking of deaths from the disease<sup>4</sup>.

Since then, the difficulty of organizing strategies to contain the circulation of the virus and, currently, the unstructured and

disjointed national conduct of vaccination between states and municipalities<sup>5</sup>, resulted in the recent mark reached of more than 607,000 deaths by Covid-19 in Brazil. According to the press consortium, based on the consolidation of data from the state health departments, we have 21,793,402 cases and 607,462 deaths up to October 30, 2021.

The denial attitude that permeated the nineteen months of the virus in the country, added to the lack of incisive control and the lack of uniformity in the conduct of the pandemic in Brazil, resulted in a great mental strain on the population<sup>6</sup>, making it even more difficult to contain risky behaviors for the infection. The increase in agglomerations and the low use of masks are some examples of behaviors that have become common and make it difficult to control cases. As in the initial spread of the virus in the country, non-compliance with social distancing measures was perpetuated both in the elites, who returned to occupy the beds of private hospitals contaminated by Covid-19<sup>7</sup>, and in the more vulnerable social classes, with less chance of joining to measures such as home office and social isolation and that maintain the use of public transport<sup>8</sup>. In the state of São Paulo, studies have shown that the metropolitan region had the highest number of positive cases in the Covid-19 pandemic. In addition, the main highways and airports connecting the capital to cities with higher population density were very important for the dissemination of cases, indicating an expansion of the capital to the interior – the 'internalization' of the pandemic<sup>9</sup>. Another study observed that in the city of São Paulo, for example, there was an important difference in the seroprevalence of Sars-CoV-2 in average higher middle income districts compared to lower middle income districts, reaching 21.6% in the richest districts and 30.4% in the poorest<sup>10</sup> – the 'peripheralization' of the pandemic.

Even with the arrival of vaccines in January 2021, the sanitary crisis scenario changed little due to the disorganization, at the national

level, of the vaccination strategy in the country. In July 2021, after the emergence of a second wave of cases in the country, even though we had not controlled the first one<sup>11,12</sup>, we saw the maintenance of virus transmission. In most states, despite a slight improvement, the bed occupancy rate in the Intensive Care Unit (ICU) remained at critical levels from March to June this year, according to the extraordinary bulletin of the Covid-19 Observatory of the Oswaldo Foundation Cruz (Fiocruz), July 14, 2021<sup>12</sup>. Added to the intensification of the health crisis, the decrease in adherence to non-pharmacological measures to contain and block transmission and the delay in vaccination, with only 15.7% of the population vaccinated with both doses of vaccine and 43.2% with the first dose of vaccine until July 2021<sup>13</sup>.

It is important to pay attention to the maintenance of practically the same workforce since 2020, the beginning of the pandemic, until today, with professionals already exhausted by the established challenges, with high demand for assistance and an increase in the workload in all spheres of health. Added to this burden is widespread misinformation and political instability, inadequate communication, lack of Personal Protective Equipment (PPE) for all health professionals, lack of public policies and adequate testing with monitoring of positive cases and suspects and the tracking of contacts, fear of infection, professional stigma, distancing from support networks and mourning the loss of patients or even family members<sup>14</sup>.

As the front line in the fight against Covid-19 is mostly female<sup>15</sup> and the health area is predominantly made up of women<sup>16</sup>, the pandemic affects them unevenly. For female health professionals, the pandemic has a greater weight due to the gender role of women in society, leading to worry, physical exhaustion, high mental load and a range of consequences in different professions. Simone de Beauvoir<sup>17</sup> elucidates in her book 'The Second Sex' (1980) the debate about the role of women in society and how it is constructed based on an established gender role.

Within the role constructed for women, the debate about the sexual division of work, addressed by Helena Hirata<sup>18</sup>, enters. According to the sociologist, this division is based on the principle that there is a separation of work, between men and women, due to the biological sex, structuring the differential distribution of the two genders in the labor market. Furthermore, it supports the idea that there is a hierarchy in this division, which denotes men's work as superior to women's and results in the unequal distribution of domestic work, which is foreseen as a female responsibility.

Sociologist Lícia Peres<sup>19</sup> highlights that this asymmetric division culminates in the accumulation of hours worked by women as a whole: after women are inserted in the labor market, they assume work outside the home, in the public sphere, as well as inside the home, in the private sphere (in general, care for the home, children, the sick), unfolding in multiple roles. The double workload burden for women is evident when we look at 2020 data from the Brazilian Institute of Geography and Statistics (IBGE)<sup>20</sup>, which indicate that, in general, women spend 10.4 hours more per week than men in tasks households, with this rate of performing tasks higher among women, regardless of color, race or age.

Still, in her critical theory on social justice, the American philosopher Nancy Fraser analyzes the redistribution of work between productive work, defined as that which results in a salary, with exchange value within the capitalist system, and reproductive work, defined as that which is necessary for the sustenance of human life in the domestic sphere, without generating wealth, performed by women<sup>21</sup>. Fraser<sup>22</sup> holds the theory that part of the economic injustice involving women derives from the economic support that reproductive work (free, female and socially devalued) provides for productive work performed by men. Therefore, the impact of gender on work dynamics in today's society is well established.

Before the pandemic, the result of women's insertion in the labor market was the

outsourcing of domestic work, most of the time to other low-income women and generally black and brown<sup>23</sup>. Social distancing and the change in this scenario led to a reduction in the presence of domestic workers in homes. In the new situation, the excess of domestic work seems to fall on women in the household. Therefore, women in the health area, in addition to gaining greater professional responsibility in dealing with the pandemic, remain the main caregivers in the home: they are doubly burdened<sup>24</sup>.

Currently, in addition to this overload arising from the double work shift, the daily presence of the exhausting national scenario also contributes negatively to their anxieties. In the sixteenth month after the virus arrived in the country, their depletion and overload is a reality.

The greater volume of work translates into weariness and generates mental overload. In a new routine in which the borders between working hours and leisure time are blurred, the demand for the constant availability of professionals inside and outside the home generates an overload that adds to constant stress and anxiety, due to the pandemic context and results in a enormous mental health load, with great impact on the mental health of this population<sup>25</sup>.

Still, the reality dictated by the presence of Covid-19 is governed by the change in personal, professional, family and social relationships, due to the distance that the virus determines<sup>26</sup> and its impact on the support networks available to these professionals, who live with a new source of stress and anxiety routinely<sup>25</sup>, dealing daily with health issues in direct or indirect confrontation with Covid-19.

There is still no way of knowing the impact of the pandemic on their lives, as this is an unprecedented scenario. Tracing the profile of professionals to understand what affects them in this context is important in understanding the repercussions of this period on the health of these workers, who

will still have a long way to go in combating the coronavirus pandemic in the country. Will the psychopathological impact on these people be among the sequels of Covid-19? Will it be accentuated among individuals involved in the universe of health? How much will productive and reproductive work impact on this? Is it bigger for them? The literature already points out this type of illness resulting from previous epidemics<sup>27</sup>.

This article aims to analyze the repercussions of the Covid-19 pandemic among different profiles of health professionals in the state of São Paulo. Also, understand the repercussions among women workers in the health area, describing and analyzing the workload and its main manifestations among the interviewees. It is also intended to compare with the main repercussions pointed out by the men interviewed, in order to understand if there are differences between them.

## Material and methods

The research is part of a larger study, which adopted a mixed approach: quantitative, in a cross-sectional and descriptive study, with a database run in the Stata program, version 13.0 and later analyzed by the researchers. A comparison was made between the responses of female and male participants using the chi-square test. It was considered significant for an analysis of p values <0.05. The qualitative part used, for the reports to be broken down at the end of the questionnaire, content analysis based on the framework of Bardin's qualitative research.

The quantitative portion of this study was carried out with the application of the semi-structured questionnaire 'Profile and burden of health professionals and health students in the Covid-19 Pandemic' in Google Forms, with an Informed Consent Form, approved by the Committee of Ethics in Research (CEP) of the Santa Casa de Misericórdia of

São Paulo, (CAAE: 32682720.8.0000.5479). The questionnaire was an adaptation of others already validated, used in research on behavior in Brazil, (mental health at Imip – Instituto Materno Infantil de Pernambuco and the one used by the collective Adelaides: Feminisms and Health, at the last general congress of the Brazilian Association of Public Health – ABRASCO), as they deal with issues of gender and health. It is noteworthy that all answered questions were analyzed and that we focused more deeply on those with a significant difference by gender, articulating these findings with the literature on the subject. The questionnaire consisted of multiple-choice questions about sociodemographic data, area of expertise, impact of the pandemic on activities, contact with the new coronavirus and diagnosis of Covid-19, workload in the pandemic, manifestations and symptoms of overload (changes in mood, physical discomfort, cognitive changes, agitation, pessimism, sleep and appetite changes). There was an open final portion for participants to leave their thoughts and suggestions in writing.

Invitations to respond to the questionnaire were made through the wide dissemination of the questionnaire's electronic address on Google Forms, with standardized text used by the responsible researchers, which explained the research objectives and invited interested parties to participate. The communication was made from the contact list of health professionals of the responsible researchers, through wide dissemination in their networks. Answers were collected from 06/22/2020 to 8/7/2020, a period during which there was constant dissemination of the questionnaire in the networks of responsible researchers. The responses were recorded in an automatically generated database and transferred to a virtual database. Open questions were transcribed and checked according to reliability.

The general survey database had 386 responses, of which 13 were from participants

who did not work or study in the state of São Paulo and were excluded from the final sample. So we got 371 responses. For this study, only health professionals were included and, therefore, the final sample consisted of 149 responses to the questionnaire suitable for analysis.

A convenience sample was used, composed of health professionals, who were willing to answer the questionnaire. As this is a non-probabilistic convenience sample, it is noteworthy that the results obtained cannot be generalized, however the approach to this population is relevant in understanding what affects them.

In our study, the ethical principles recommended for research involving human beings were complied with.

## Results

### Sample characterization

A total of 149 responses were obtained, among which 78.5% were female and 21.5% were male. The sample consisted of approximately 40% of respondents aged over 50 years, a proportion that remains between women and men. Among the 117 women, 36 (30.8%) were between 51 and 60 years old and among the 32 men, this percentage was 21.9%, while 11 (9.40%) women and 21.9% (7) of men were over 60 years old.

Most participants (53.3%) had an average monthly income of 8 minimum wages or more, with a significant difference ( $p = 0.019$ ) between men and women. While among the men, 75% receive 8 minimum wages or more per month, among women this number is only 47%. Among the different professional categories, this imbalance remains, except among nurses, as shown in *table 2*.

The distribution of professions took into account the minimum number of at least

ten participants per area of activity in the general sample to compose a category. The others were grouped in the 'others' category, this one with a high diversity of areas of activity, thus representing the high percentage of 32.89%. However, the number of doctors, nurses, psychologists and nutritionists was relevant.

The difference was significant ( $p=0.002$ ) in the percentage of men and women in medicine, with the profession of 56.25% of respondents being male and of 19.7% being female. Of the total number of physicians in the general sample, the majority (56.1%) were women. It should be taken into account that the study researchers are inserted in the academic and professional medical environment, with a possible result bias being attributed to this

issue in the sample, with a greater number of participants in the medical field (27.5%). However, other differences stand out, such as the higher percentage of women who are nurses (17.1%), psychologists (18.8%) and nutritionists (8.55%).

As for the length of professional experience, 69.1% have worked in the profession for more than 10 years, a common percentage between men and women. Regarding the area of action during the pandemic, 35.57% worked in areas that did not involve contact with patients, such as management and teaching. However, most of the sample (36.9%) worked in contact with patients with Covid-19. Among women, 32.5% of respondents were in contact with patients with Covid-19, among men this percentage was 53.1% of 32 respondents.

Table 1. Sociodemographic and professional characterization of the sample and gender distribution

	General (n = 149)		Female (n = 117)		Male (n = 32)		Difference between genders	
	n	%	n	%	n	%	Chi-square test	p Value
<b>Gender</b>								
Female	117	78.52%	-	-	-	-		
Male	32	21.48%	-	-	-	-		
<b>Age</b>							5.9458	0.203
21-30	19	12.75%	13	11.11%	6	18.75%		
31-40	36	24.16%	29	24.79%	7	21.88%		
41-50	33	22.15%	28	23.93%	5	15.63%		
51-60	43	28.86%	36	30.77%	7	21.88%		
> 60	18	12.08%	11	9.40%	7	21.88%		
<b>Marital Status</b>							13.1531	<b>0.022</b>
Single	48	32.21%	36	30.77%	12	37.50%		
Married	60	40.27%	51	43.59%	9	28.13%		
Divorced	17	11.41%	16	13.68%	1	3.13%		
Stable Union	22	14.77%	13	11.11%	9	28.13%		
Other	2	1.34%	1	0.85%	1	3.13%		
<b>Monthly Income</b>							7.9289	<b>0.019</b>
Up to 4 MMW*	24	16.11%	21	17.95%	3	9.38%		
4-8 MMW	46	30.87%	41	35.04%	5	15.63%		
8+ MMW	79	53.02%	55	47.01%	24	75.00%		

Table 1. (cont.)

	General (n = 149)		Female (n = 117)		Male (n = 32)		Difference between genders	
	n	%	n	%	n	%	Chi-square test	p Value
<b>Profession</b>							17.5177	<b>0.002</b>
Physician	41	27.52%	23	19.66%	18	56.25%		
Nurse	24	16.11%	20	17.09%	4	12.50%		
Psychologist	24	16.11%	22	18.80%	2	6.25%		
Nutritionist	11	7.38%	10	8.55%	1	3.13%		
Others	49	32.89%	42	35.90%	7	21.88%		
<b>Professional experience</b>							3.6930	0.449
Less than 1 year	10	6.71%	7	5.98%	3	9.38%		
1-2 years	7	4.70%	4	3.42%	3	9.38%		
3-5 years	10	6.71%	8	6.84%	2	6.25%		
6-10 years	19	12.75%	17	14.53%	2	6.25%		
More than 10 years	103	69.13%	81	69.23%	22	68.75%		
<b>At the moment your activity</b>							6.3762	0.095
Does not involve contact with patients	53	35.57%	42	35.90%	11	34.38%		
Involves contact with non-covid-19 patients	41	27.52%	37	31.62%	4	12.50%		
Involves contact with patient with Covid-19	21	14.09%	14	11.97%	7	21.88%		
Involve contact with patients with and without Covid-19	34	22.82%	24	20.51%	10	31.25%		

Source: Self elaborated.

Note: In bold values of  $p < 0.05$ .

\*Monthly minimum wage.

Table 2. Income statement between different professional categories

	Physician		Nurse		Psychologist		Nutritionist		Others											
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women										
	n	%	n	%	n	%	n	%	n	%										
<b>Monthly Income</b>																				
Up to 4 MMW	1	5.56%	1	4.35%	0	0.00%	3	15.00%	0	0.00%	4	18.18%	0	0.00%	0	0.00%	2	28.57%	13	30.95%
4-8 MMW	0	0.00%	2	8.70%	3	75.00%	10	50.00%	0	0.00%	7	31.82%	0	0.00%	1	10.00%	2	28.57%	21	50.00%
8+ MMW	17	94.44%	20	86.96%	1	25.00%	7	35.00%	2	100.00%	11	50.00%	1	100.00%	9	90.00%	3	42.86%	8	19.05%

Source: self elaborated.

### Impacts of the pandemic: Overload's evaluation

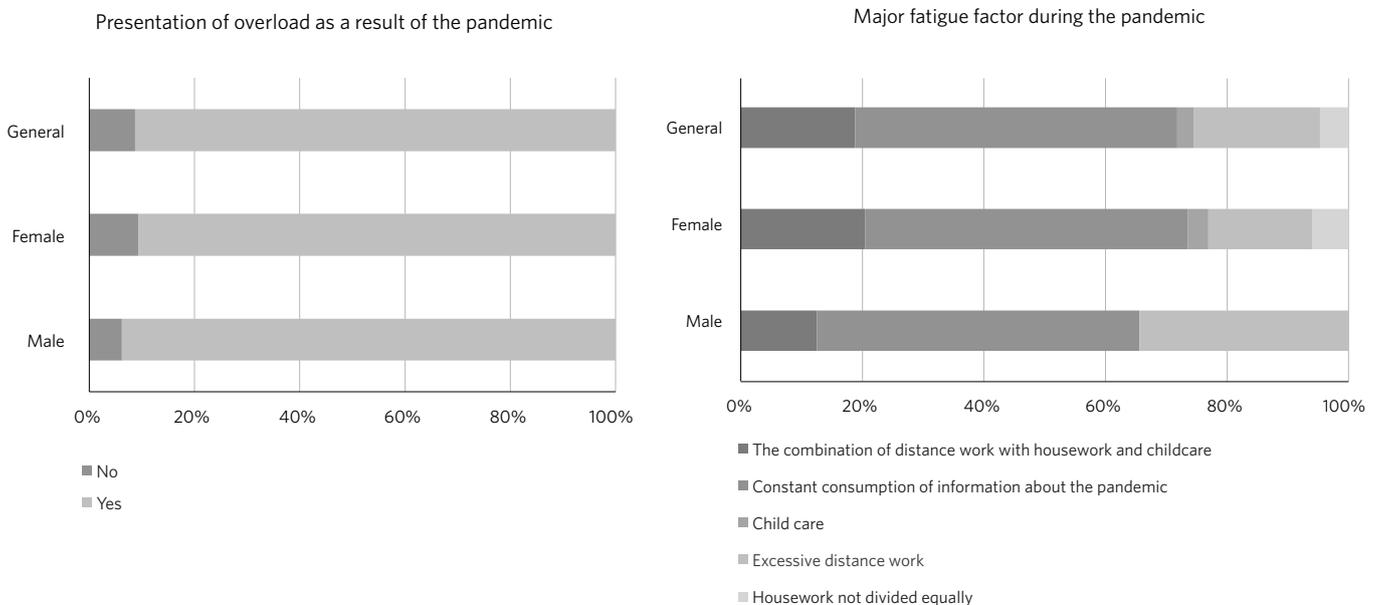
The burden reported by survey participants with regard to everyday life changes in the pandemic was significant. 91.3% of the total number of respondents indicated that they were overloaded (*graph 1*). Among the 117 women interviewed, 106 (90.6%) reported feeling overwhelmed and, among the 32 men, 30 (93.75%) reported the same.

Of the overworked professionals, 39.13% were caring for Covid-19 positive patients. For 47.83% of them, work was the main tiredness factor in this context (versus. 28.26% of professionals without contact with patients and vs. 23.91% of professionals who only treated non-Covid-19 patients). Professionals caring for patients with Covid-19 were the ones who most reported

an increase in the workload during the pandemic (38.54%), with more than half (56.25%) of those who reported working 10 hours or more per day.

Work overload added to domestic work in the home environment was the most prevalent answer (48.5%). The percentage of women respondents who reported being overloaded, mainly at home, was 16.2%. Only 9.4% of the men interviewed reported the same. As for the reasons given for the feeling of overload, we highlight that 7 women say that housework is not equally divided as the main fatigue factor in the pandemic and, among these, 4 women say the same thing about caring for the children. None of the male respondents pointed out the same. The constant consumption of information about the pandemic was the fatigue factor most remembered by both men and women.

Graph 1. Overload due to the pandemic and factor pointed out as the main reason for this tiredness amid the reported overload



Source: self elaborated.

As for the manifestations or symptoms of overload, 70.5% of the general sample reported changes in mood such as bad mood, irritability and discouragement, this percentage was the same between men and women. More than half (57.3%) of women and half (50%) of men reported physical discomfort (headache, muscle pain, tiredness, nausea, dizziness). While 41.9% of women reported memory problems, difficulty concentrating, confusion, and 39.3% agitation and restlessness, respectively, only 21.9% and 12% of men reported the same. Excessive pessimism was more reported by men (31.25%) than by women (23.1%). Sleep alterations were noticed by more than half of the total sample (53.69%), with a quarter of women (25.6%) and an eighth of men

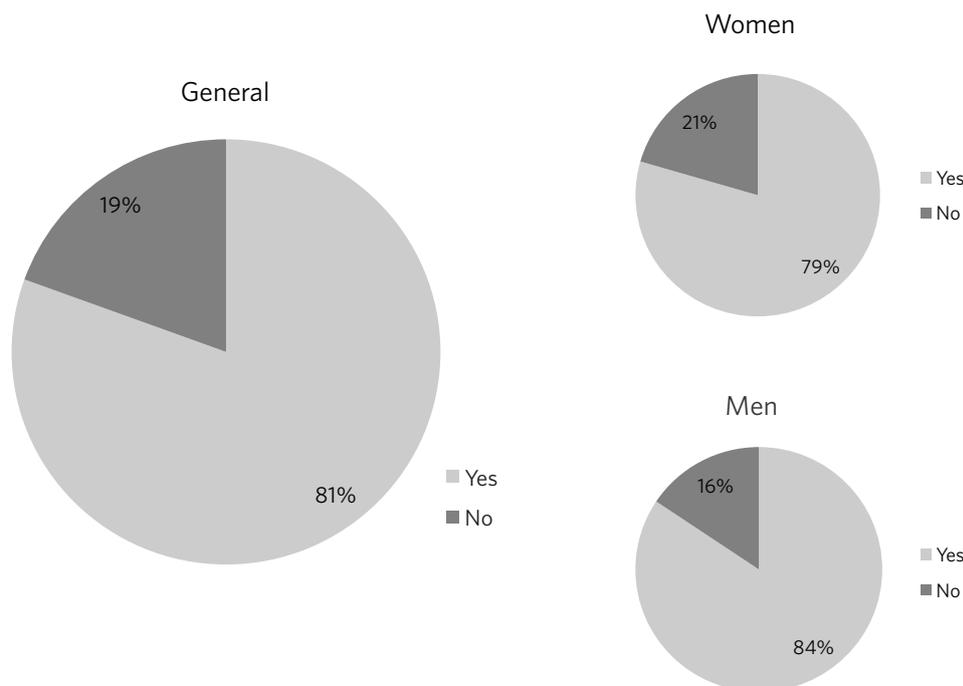
(12.5%) reporting an increase in the number of nightmares.

### Family environment

There was a significant difference ( $p = 0.022$ ) in marital status between men and women. When analyzing the general sample, most (40.3%) were married people. However, this percentage was higher among women (43.6%) than among men (28.1%).

Most men (37.5%) and almost a third of women (30.8%) were single. Only 11.4% of the sample was divorced. Most divorcees were among women (13.7%). Men were 3.1%. A considerable percentage of participants had a stable relationship (14.8%), more frequent among men (28.1%).

Graph 2. Increased domestic and care work in the context of the pandemic in the general sample, among the men in the sample and among the women in the sample

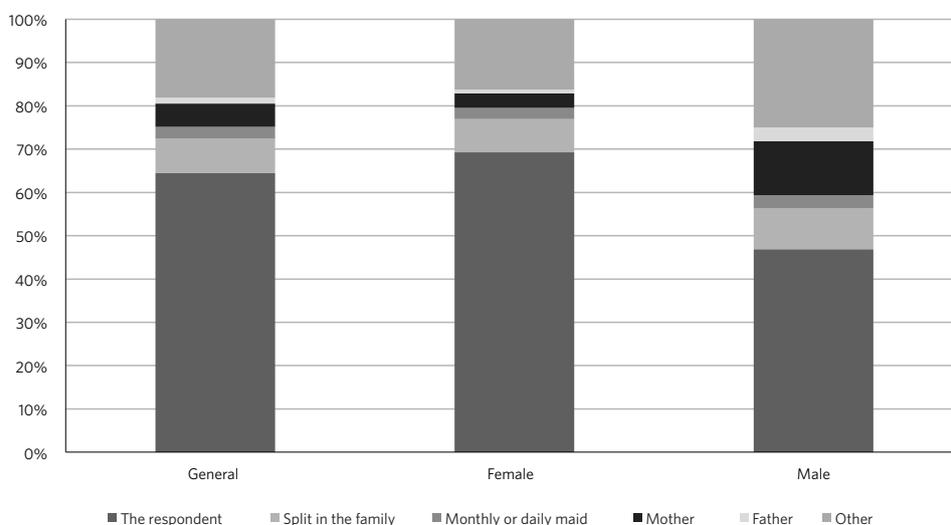


Source: self elaborated.

In relation to housework, most respondents (80.5%) pointed out that these increased a lot in the context of the pandemic (*graph 2*). This percentage was 79.5% among the 117 women interviewed and 84.4% among the 32 men. The responsibility for housework, on the other hand, was mostly appointed as that of the respondent. However, while more than

two-thirds (69.2%) of women report being responsible for domestic work at home, not half (46.9%) of men report the same. Also, a higher percentage of men, 15.6% versus 6%, reported depending on women such as their mothers or housekeepers/daykeepers to carry out housework.

Graph 3. Responsible for domestic work in the respondent's home



Source: self elaborated.

## Discussion

The results we found corroborate the national and international literature on the participation of women in the health area: they are the majority<sup>15,16</sup>. The greater presence of men than women in medicine is also pointed out in the literature. Researchers at the Faculty of Medicine of the University of São Paulo (USP), in 2017, pointed out the participation of 54.4% of men, compared to 45.6% of women in the profession<sup>16</sup>. However, we have references in the literature that there is an ongoing process of ‘feminization’ of medicine, which is also

demonstrated in our sample with a female majority among the study physicians. The trend towards greater female participation in the medical career also appears among younger women, with the largest number of women among undergraduate students<sup>16</sup>.

Among the other professional categories, the difference between the participation of men and women does not remain. Historically, care work related to areas such as nursing, an important part of our sample, was already mostly occupied by women, while men occupied areas of greater social prestige, such as medicine<sup>15</sup>.

An important finding was the difference between the average monthly income reported by women and men. Part of the literature indicates that, in general and in the area of health, women earn less than men, even if they have the same education<sup>16,28,29</sup>. Data from the WHO show that, even if the working hours are the same, wage inequality between men and women in the same profession is present and appears in the composition of monthly income. Men are the ones who, most of the time, accumulate the positions of leadership, coordination and directors, which increases the final salary. They are also more active in education, surgery and administration<sup>30</sup> – areas of greater social prestige – being more often in positions of power and with higher monthly income.

According to the WHO, even after discounting the difference in hours worked and the different occupations between men and women, there is still an inexplicable abyss of 11.2% between the salary of men and women in the same occupation and working the same amount of hours<sup>15</sup>.

Women, in turn, have a greater role in unpaid work performed at home (domestic work, child care, etc.) which, in addition to reducing their availability of time for accumulating positions similar to men, wears them out enormously. Still, supported by Fraser, this reproductive work carried out by them is part of what sustains the productive work carried out by men and which allows them greater accumulation of income, perpetuating inequality<sup>22,30</sup>. The literature points out that it is women who, amidst the pandemic, have most reduced their hours at work and, consequently, their income, especially those with children and in couples who both work<sup>31</sup>. The inequality between men and women in terms of work and income is one of several situations exacerbated by the pandemic. However, for many health professionals, this reduction was not possible and, even so, the accumulation of domestic activities was enormous.

Most of our sample (36.9%) works directly with patients with flu syndrome/respiratory symptoms/Covid-19 positive in their work routines. Our data show that these professionals are the ones who were subjected to the greatest workload in the context of the pandemic. Some studies also point out that health professionals in direct contact with patients who are positive for Covid-19 present more frequently symptoms of anxiety, depression, loss of sleep quality and anxiety<sup>32</sup>. A large part of our sample (35.9%) reported not working in direct contact with the Covid-19 area, but in management, research or teaching activities. This can be a result bias due to the area of expertise of one of the responsible researchers as a professor and researcher. However, the mental health of all health professionals was impacted as a result of the challenges provided by the pandemic and requires a unique perspective<sup>33,34</sup>.

The overload described by the research participants is extremely relevant. Nineteen months after the pandemic, data on Covid-19 by the consortium of press vehicles indicate a moving average of Covid-19 cases above 60 thousand and deaths from the disease above 1,500 from March to July 2021. In this period, tiredness, anxiety, stress and work accumulated in the lives of health professionals, which have remained the same since the beginning. The impact on these professionals' mental health is real<sup>25,32</sup> and will continue to affect their performance and their health, if there is no specific look at these workers.

The physical and emotional manifestations of the burden were quite present, both among men and women, reinforcing the negative impact already evidenced by the pandemic on the mental health of health professionals<sup>32,34</sup>. It is noted that women reported more physical discomfort, cognitive changes, agitation and restlessness and a greater increase in nightmares, that is, their mental health is more fragile.

In the literature, some of the main stressors in quarantine arising from a pandemic

are: quarantine duration, fear of infection, frustration and boredom, inadequate basic supplies and inadequate information about the pandemic<sup>36</sup>. If we consider the Brazilian context, even though the concept of quarantine here differentiates isolation and social distancing, some aspects evaluated are applicable to the country's reality as stressors in the period of the Covid-19 pandemic: the uncertainty of the duration of social isolation, fear infection, frustration and boredom when staying away from society for long periods and, finally, the lack and contradiction of information provided by government leaders that are part of the routine of Brazilians and, thus, of health professionals<sup>5</sup>. The literature supports that these factors reflect differently according to gender<sup>37</sup>.

When analyzing the fatigue factors that cause overload among women and men, some notions remained similar, regardless of gender. There is a high relevance of the constant consumption of information about the pandemic (the most prevalent reason for tiredness for both) and excessive distance work as generators of overload. According to the literature, consumption of denser news and news, routine in the current scenario, is associated with worse mental health and well-being<sup>38</sup>. It is noteworthy that the proportion of women who feel tired as a result of the combination of distance work with housework and child care was greater than the proportion of men. This corroborates the literature that points out that women are subjected to double work shifts, absorbing the weight of domestic work even in the current context<sup>39</sup>.

While some women reported unevenly divided housework or child care as the main cause of fatigue, no men even selected this alternative. Considering the social role of women as the main determinant in the attribution of unpaid domestic work and the consequent unbalanced division of this in Brazilian families<sup>40</sup>, the research findings

reinforce the inequalities in gender roles discussed by Beauvoir, Hirata and Pères<sup>17-19</sup>. Caring for the home, children and animals is made invisible in the lives of working women who, even after a long day at work, come home and are faced with functions and tasks not assigned to the men of the household.

Most of the sample considers that there was an increase in housework during the pandemic. This increase was more noticed by men than by women. This may be due to an increase in relation to what they used to do, as prior to the pandemic, domestic work was already mostly carried out by housewives<sup>20</sup> or was outsourced to a maid<sup>23</sup>. With the change in interpersonal relationships and organizational dynamics resulting from the pandemic, it is possible that there was a better division of domestic work in some households, being noticed more by men. Another possibility is based on the conception that the performance of domestic work by women is already naturalized within the patriarchal system<sup>18</sup>, as data collected in March 2021 by the Bureau of Studies on Bureaucracy (Fundação Getulio Vargas – FGV) indicate that they have accumulated more 30 hours per week of domestic activities during the pandemic<sup>39</sup>.

Consequently, women do not even recognize this increase or even the burden it generates. Our data show that more than 60% of the women interviewed were responsible for domestic work in their homes, while not half of the men had the same task. We can also note the greater volume of domestic work in male households that are outsourced to other women, such as mothers and maids, which reinforces the sexual division of labor rooted in Brazilian society<sup>18</sup>. The workload for women ends up being, therefore, in the professional and domestic sphere. A consequence of this seems to be the greater mental burden and increased susceptibility to mental illness. Literature shows that women in the health area report

more mental exhaustion and manifest more symptoms of Burnout syndrome than men<sup>41</sup>.

## Limitations

As for the limitations of the study, there is a limitation in the sample space and possibility of generalization based on the data and results obtained by the type of sample used. Furthermore, despite the relevant number of responses analyzed, there was great heterogeneity of reported professional performance, both in terms of the profession and in relation to the care or not of patients. These groups have different realities that are difficult to compare.

Despite this, the study has several strengths. It brings a look at the situation of a very relevant group in the fight against the pandemic: health professionals. Regardless of the degree of contact with Covid-19, everyone is directly or indirectly involved in the pandemic. Furthermore, it brings a gender perspective, which is still little used in this population, pointing out the difficulties faced by women, who are often neglected in our patriarchal society.

## Conclusions

The Brazilian reality was decisive in evaluating the impact of the pandemic on the lives of health workers, according to our study. Health professionals are already a vulnerable group in the current context and we understand that, on top of that, there are factors described as daily stressors in the interviewees' routine, such as the uncertainty of the time of isolation, fear of infection, frustration when facing unfavorable conditions of their patients, as well as the lack of support of adequate public

policies to fight the pandemic and the contradiction of information provided by government leaders.

In addition to highlighting the burden reported by health professionals, one of the pillars of the fight against the new coronavirus, our study showed clear gender differences in the impacts of the pandemic. If, as professionals, women suffered the same impact as men, when analyzing their realities in this context, the difference in the factors that generated a burden for women, linked to the domestic environment, the low pay to perform the same functions and their gender role, reflects in a greater weakening of their mental health, evidenced by the results obtained. Our study therefore concluded that the Covid-19 pandemic is more difficult for women.

In an unprecedented scenario, it is still not possible to know the future repercussions of this fact, nor whether this situation will be considered one of the consequences of the pandemic in the future. It is important to use a gender perspective when thinking about intervention strategies for the healthy recovery of society in a post-pandemic future in which the consequences of an overburdened society will come.

## Collaborators

Vieira J (0000-0003-2360-1186)\* contributed to the completion of the research by applying the questionnaire, data collection and analysis, literature review, drafting and review of the manuscript. Anido I (0000-0002-3058-2107)\* contributed to the research by applying the questionnaire, data collection and manuscript review. Calife K (0000-0002-7038-8069)\* contributed to the research, preparation and revision of the manuscript. ■

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