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# Working conditions in primary health care in the COVID-19 pandemic: an overview of Brazil and Portugal

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**Abstract** *The COVID-19 pandemic has put pressure on public health systems worldwide since 2020. This article aims to discuss working conditions in Primary Health Care (PHC) in Brazil, while dialoguing with primary health care (CSP, Cuidados de Saúde Primários) in Portugal in the pandemic scenario. For that purpose, data from the study "Working conditions of health professionals in the context of COVID-19 in Brazil" are presented, for further discussion with the report produced by "Family Health Units – National Association (USF-AN, Unidades de Saúde Familiar - Associação Nacional)" on the CSP in Portugal. In Brazil, regarding the sample of 3,895 PHC health professionals, it was observed: multiple employment relationships, lack of institutional support and specific training, living with fake news and the lack of political cohesion between health authorities, with significant changes in these workers' mental health. In Portugal, the increase in the workload and the presence of Burnout Syndrome among FHU professionals was emphasized. The pandemic had a significant impact on the health and daily work of health professionals in PHC and CSP. However, the Brazilian context was more adverse due to fake news and divergences regarding conducts related to the fight against the pandemic, due to the actions and denialism by the federal government.*

**Key words** *COVID-19, Health workers, Primary health care, Work conditions*

## Introduction

The COVID-19 pandemic has had severe impacts on social, economic and political dynamics in several countries, as well as on the provision of care by public health systems, such as in Brazil and Portugal. Although these two societies have different socioeconomic and health indicators, part of their historical formation and social conformations are interconnected. In the past, Brazil was a Portuguese colony[1]. In contemporary times, in a conjuncture of post-military dictatorship redemocratization, both countries established universal health systems, according to the Beveridge model, oriented towards primary health care (PHC): the Unified Health System (SUS, *Sistema Único de Saúde*) in Brazil and the National Health Service (SNS, *Serviço Nacional de Saúde*) in Portugal[2].

The SUS was created by the Brazilian Federal Constitution of 1988 and, in 1994, the Family Health Program (FHP) was implemented, which, later in 1996, became the Family Health Strategy (FHS), becoming one of the pillars of the National Primary Care Policy (PNAB, *Política Nacional de Atenção Básica*), which serves as reference for the organization and implementation of PHC services in the country[3].

The organization, performance of services, hiring of health workers and a good part of the funding of these services are carried out by the municipalities. Although PHC in Brazil is settled between the municipal governments, the federative units and the federal government, the municipalities have administrative autonomy over their local network of PHC services, which may include: Family Health teams (FHTs), oral health teams (OHTs), Primary Care teams (PCTs), and teams from the Family Health Support Center (NASF, *Núcleo de Apoio à Saúde da Família*)[4].

In Portugal, the SNS was created in 1979, through Law N. 56/19795, five years after the Revolution of April 25, 1974. The PHC model adopted in the country is called Primary Health Care (CSP, *Cuidados de Saúde Primários*). The creation of health centers preceded the SNS, through Law N. 413/19716. In 2005, the reform of primary health care (CSP) was started in the country, formalized through Law N. 298/2007[7-9].

The CSP are guided at the national level by the Ministry of Health, but they are organized in a regionalized manner by the Regional Health Administrations (ARS, *Administrações Regionais de Saúde*) and their Groupings of Health Centers (ACeSs, *Agrupamentos de Centros de Saúde*). Within these spheres, there are several functional units that provide CSP services to the population of a given geographic area. The ACeSs may include Health Centers that are Family Health Units (FHUs) or Personalized Health Care Units (UCSPs, *Unidades de Cuidados de Saúde Personalizados*), in addition to other services such as: Community Care Units (UCC, *Unidades de Cuidados na Comunidade*), Shared Assistance Resource Units (URAP, *Unidades de Recursos Assistenciais Partilhados*) and Public Health Units (USPs, *Unidades de Saúde Pública*). Funding and hiring of workers occur in a regionalized way in the ARS and the organization and administration of public health services of CSP are carried out in the ACeSs[10,11].

The pandemic context put pressure on public health systems by requiring the resizing of the supply and demand of health professionals; health professionals with technical competence for the clinical management of patients with severe acute respiratory syndrome due to COVID-19 (SARS-CoV-2); organizational strategies for health actions for the prevention, surveillance and diagnosis of COVID-19; specific supplies for health services to face the pandemic[12-16].

In PHC-oriented systems, plans with different actions were perceived, but it is pointed out that, even with these measures, PHC was overwhelmed by the dynamics of care for chronic diseases and/or the lack of prioritization of this level of care in the contingency plans of health systems when facing the pandemic. However, in countries with strong PHC, there were more efficient and faster responses in the pandemic scenario[17,18].

It should be noted that the COVID-19 pandemic exposed problems related to funding, infrastructure, and the organization of health service networks in the different public health systems worldwide. Moreover, in this scenario of coping with the pandemic, the need to resume discussions on the health and safety of health workers involving working conditions, personal protective equipment (PPE) and the presence of comorbidities among these workers emerged[12-16].

Regarding deaths among professionals due to COVID-19 worldwide and in Brazil, Machado et al. (2022)[19] state that:

As of March 2021, the WHO had recorded a global total of 108,579,352 cases and 82,404,102 deaths from COVID-1920. In the first three months of 2021, there was an exponential growth in occurrences in the country, which became the

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epicenter of the pandemic worldwide, reaching, in April 2021, 7,563,551 cases and 192,681 deaths[21]. It was the most critical moment of the pandemic: Brazil came to occupy the 2nd place in the ranking of deaths, concentrating 30% of the global total, second only to the USA[22]. More than 3,000 people died every day, of which five were health professionals.

The same authors show that "according to updated data from CFM and COFEN, until October 2021, 893 doctors and 873 nursing professionals have already died, 617 of which were assistants/technicians and 256 were nurses across the country"[19,23,24].

Another survey carried out by the Public Services International (2022) estimates that in Brazil, by the end of 2021, 4,500 health professionals had died from COVID-19 and the majority were female and had no assured labor rights[25].

Regarding the Portuguese context, there is no official estimate. However, in response to press vehicles in March 2021, the Directorate General for Health (DGS, *Direção Geral de Saúde*), a body linked to the Ministry of Health in Portugal, pointed out that at that time 27,973 health professionals would have been infected by COVID-19, with 19 deaths[26].

Concerning the reality of coping strategies against COVID-19, it is pointed out that there was no focus on health planning for PHC or that actions aimed at PHC were secondary in relation to other emergency measures to fight the pandemic. Regarding the working conditions of health professionals and workers in PHC, the lack of personal protective equipment, the prevalence of infection and death rates due to COVID-19 and mental health problems similar to the rates of hospital workers stand out[27-31].

Therefore, discussing working conditions in PHC, in the public and universal health systems, is important to understand the current scenario of action strategies to fight the COVID-19 pandemic, as well as the dynamics of PHC work in a context of pressure on health systems, both from the pandemic and from the increase in morbidity and mortality from diseases unrelated to COVID-19 infection and SARS/SARS-CoV-2.

Hence, this article aims to display some data from the study "Working conditions of health professionals in the context of Covid-19 in Brazil" (FIOCRUZ-RJ)[32], and, based on these data, present a discussion about the working conditions in primary health care (PHC) in Brazil in the pandemic scenario, while dialoguing with the reality of Primary Health Care (CSP) in Portugal by the report produced, in December 2021, by the "Family Health Units – National Association (USF-AN)", entitled "The impact that support for units and services created within the scope of the COVID-19 pandemic has had on primary health care"[33].

## Method

The article makes a descriptive analysis of working conditions in PHC in Brazil during the COVID-19 pandemic, based on an excerpt from the research "Working conditions of health professionals in the context of Covid-19 in Brazil" (ENSP and CEE – Fiocruz, 2020-2021) and contextualizing it with the international scenario, specifically with the scenario of primary health care (CSP) in Portugal.

It should be noted that the study "Working conditions of health professionals in the context of Covid-19 in Brazil" (ENSP and CEE – Fiocruz, 2020-2021), was published under Opinion n. 4.081.914, CAAE n. 32351620.1.0000.5240.

This research reached a contingent of 15,132 health professionals who actively worked on the front lines in the fight against the recent pandemic. Of this total, 3,895 professionals (25.7%) work in primary health care, whether in Health Centers, Basic Health Units (UBS), Family Health Units (USF), Basic River Health Units (UBSF, *Unidades Básicas de Saúde Fluvial*) or Mixed Units, as the main work institutions (Table 1).

The excerpt used for the analysis of this article is based on these professionals who work in PHC, that is, more than 1/4 of the total contingent. For the analysis, the tools available in SPSS were used to select the data of those who answered they had PHC as their main work institution. After applying this filter, new tables were generated (n = 3,895) to base the analyses demonstrated herein, presenting the absolute (n) and relative (%) frequencies.

For more methodological details, see the article "Transformations in the world of health work: workers and future challenges", also present in this thematic issue of *Revista Ciência & Saúde Coletiva*.

Therefore, the data of this specific group will be compared with the general sample universe of the research and they were analyzed according to studies that address strategies for coping with COVID-19 and working conditions in PHC worldwide and, specifically, in Portugal and in Brazil, throughout the pandemic.

**Table 1.** Health professionals according to type of health institution (main) operating in the fight against COVID-19 – Brazil.

| Type of institution | V.Abs. | % |
|---|---|---|
| Public hospital | 5,218 | 34.5 |
| Private hospital | 1,701 | 11.2 |
| Philanthropic hospital | 754 | 5.0 |
| Field hospital | 473 | 3.1 |
| UPA | 760 | 5.0 |
| SAMU | 262 | 1.7 |
| PHC (Centro de Saúde/UBS/USF/ UBSF/Mixed Units) | 3,895 | 25.7 |
| Polyclinic/Clinic/Specialized center | 850 | 5.6 |
| Remote care | 217 | 1.4 |
| Long-stay institution | 46 | 0.3 |
| Administration in general | 357 | 2.4 |
| Teaching and research institution | 79 | 0.5 |
| Auditing/medical Expert | 1 | 0.01 |
| Autonomous activity | 4 | 0.03 |
| SADT | 89 | 0.6 |
| Military/Security area | 21 | 0.1 |
| Prison system (socio-educational system) | 31 | 0.2 |
| Commerce/industry | 59 | 0.4 |
| Private practice | 145 | 1.0 |
| Pharmacy/drug store | 16 | 0.1 |
| Petroleum | 4 | 0.03 |
| Others | 66 | 0.4 |
| NR | 84 | 0.6 |
| Total | 15,132 | 100.0 |

Source: Machado MH, coordinator. Study: "Condições de trabalho dos profissionais de saúde no contexto da COVID-19 no Brasil". Rio de Janeiro: ENSP/CEE-Fiocruz; 2020/2021.

Regarding the dialogue between the excerpt from "Working conditions of health professionals in the context of COVID-19 in Brazil"[32] and the working conditions in primary health care (CSP) of the National Health Service (SNS), to deepen the discussion of the Portuguese context, the study report "The impact that support for units and services created within the scope of the COVID-19 pandemic has had on primary health care" was used.

This report was produced through a survey carried out electronically by the Family Health Units – National Association (USF-AN), between December 10th and 14th, 2021, totaling 153 responses (26%) from Family Health Units, of the 586 that existed at the time of the study, and which were divided into 43 Groupings of Health Centers, totaling 78% of the ACES in the country, which currently comprise 55 ACES[33-35]. It is noteworthy that this report had a descriptive statistical analysis including percentages with measures of central tendency and/or dispersion, whose part of these data will be presented in a summary in the discussion of this article.

## Results

Of the 3,895 health professionals who worked in primary health care in the pandemic context, 58.7% were nurses, 18.6% physicians and 13.7% dental surgeons, mostly female (81.7%), mostly aged around 35 years (40.5%) and between 36 and 50 years (44.7%) and of white ethnicity (57.5%). This pattern follows the general scenario of the research, with the difference that there is a greater presence of dental surgeons, who became the third largest contingent of respondents in PHC, due to the existence of oral health teams, according to the guidelines of the National Basic Care Policy (Table 2).

Most of these professionals worked in the Southeast and Northeast regions and a significant number worked in the interior (51.9%) while another part was in the capitals and metropolitan regions (44.2%) (Table 2). It is noteworthy that this scenario of interiorization differs from the general survey, where the majority was located in the capitals and in the metropolitan regions (59.2%). This points to the important capillarization of health care in the face of the COVID-19 pandemic by PHC in Brazil, contributing to the expansion of access to the SUS and the interiorization of health professionals in the country.

Regarding the workload, it is demonstrated that these professionals mostly worked between 21 and 40 hours a week (65.2%) and most did not perform any other work activity besides PHC (68.1%) and were already working in PHC when coping with the COVID-19 pandemic (71.1%) (Table 3).

It is worth mentioning the multiplicity of types of hiring and employment relationships, which together reached 50.7% compared to 49.3% of statutory contracts (Table 3). This scenario follows the pattern of the general survey, which shows the deregulation of the health labor market in Brazil. However, it should be noted that the existence of these types of employment relationships in PHC can contribute to the high turnover of professionals at this level of care,

**Table 2. S**ociodemographic profile of health professionals working in PHC in coping with COVID-19 in Brazil no Brasil.

| Variables | V. Abs. | % |
|---|---|---|
| Professional category | | |
| Physician | 726 | 18.6 |
| Nurse | 2,285 | 58.7 |
| Dental surgeon | 535 | 13.7 |
| Other professionals | 349 | 9.0 |
| Sex | | |
| Female | 3,183 | 81.7 |
| Male | 701 | 18.0 |
| NR | 11 | 0.3 |
| Age range | | |
| Up to 35 years | 1,578 | 40.5 |
| From 36 to 50 years | 1,741 | 44.7 |
| 51 years and older | 576 | 14.8 |
| NR | 0 | 0.0 |
| Skin color or ethnicity | | |
| White | 2,240 | 57.5 |
| Black/Brown | 1,553 | 39.8 |
| Yellow | 84 | 2.2 |
| Indigenous | 11 | 0.3 |
| NR | 7 | 0.2 |
| Regions | | |
| North | 382 | 9.8 |
| Northeast | 1,119 | 28.7 |
| Southeast | 1,295 | 33.2 |
| South | 700 | 18.0 |
| Midwest | 398 | 10.2 |
| NR | 1 | 0.03 |
| Place of professional practice | | |
| Capital + Metropolitan Region | 1,719 | 44.2 |
| Interior | 2,023 | 51.9 |
| NR | 153 | 3.9 |

Source: Machado MH, coordinator. Study: "Condições de trabalho dos profissionais de saúde no contexto da COVID-19 no Brasil". Rio de Janeiro: ENSP/CEE-Fiocruz; 2020/2021.

which can harm or even make it impossible to retain professionals and to maintain longitudinal health care in populations attended at basic health units.

Regarding working conditions in PHC in the pandemic context, it can be observed that most health professionals (55.1%) provided care to patients with COVID-19 in their health units. However, 60.6% did not have any institutional support in their health units and 66.4% had no training in the use of PPE or had to train themselves or with the help of colleagues (Table 3).

Making a parallel with the total research universe, it is observed that the PHC workers received less training (66.4%) than overall (45.3%), which indicates a greater possibility of incorrect or inappropriate use of PPE and, consequently, the increase in the possibility of contagion by COVID-19 in the work environment in health units.

It is noted that 49% of these professionals did not feel protected from COVID-19 in the PHC work environments and that, despite the presence of PPE, there were difficulties in providing N95/PFF2 masks and overcoats (Table 3).

It is worth mentioning that this scenario is a little worse in PHC than in the survey as a whole, in which a total of 43.2% felt unprotected. It is important to emphasize that the lack of N95/PFF2 masks (67.0%) and overcoats (77.0%) and improvisation (20.7%) in PHC made these work environments more vulnerable when compared to the universe of the survey, whose availability of N95/PFF2 masks and overcoats was higher (75.5% and 81.0%, respectively) and the improvisation rate was lower (17.5%).

Moreover, most professionals reported that they lived with fake news and the lack of political cohesion between public health management institutions at municipal, state and federal levels (Table 3).

It is important to emphasize that this scenario was also present in the general survey, with the caveat that in PHC, 82.1% of the health professionals treated patients who believed in fake news about COVID-19 compared to 76.1% of the total universe of the research, demonstrating the possibility of a more difficult everyday relationship with users in basic health units, as well as in the territories assigned to these services.

Regarding changes in the professional routine in PHC with the pandemic, 36.8% reported exhausting work or on the verge of exhaustion and 25.3% reported a rigid and complex work context in a scenario of demands related to biosafety standards and lack of PPE. Therefore, it can be observed that only 0.9% reported feeling gratified for saving lives (Table 4).

Although a small number of PHC professionals mentioned being part of risk groups (0.2%) or feeling tension when going back home from work and vice-versa (0.6%), 8.7% reported fear of death and imminent contamination (Table 4).

This picture described above accompanies the research scenario, showing there were no significant differences regarding changes between professional routines in the general public as-

**Table 3.** Professional profile and working conditions of health professionals working in PHC in the fight against COVID-19 in Brazil.

| Variables | V.Abs. | % |
|---|---|---|
| Type of Employment Relationship in PHC | | |
| Statutory (effective position employee) | 1,921 | 49.3 |
| Employee (CLT of company/public foundation) | 413 | 10.6 |
| Employee (CLT of a company/private entity or philanthropic institution) | 275 | 7.1 |
| Temporary public administration contract | 768 | 19.7 |
| Temporary contract in a company/private entity | 51 | 1.3 |
| Self-employed (individual, legal entity, cooperative member, owner/partner) | 105 | 2.7 |
| Commissioned position in public administration, without effective bond | 120 | 3.1 |
| Resident/Specialization student/Intern/Scholarship fellow | 225 | 5.8 |
| Other types | 11 | 0.3 |
| NR | 6 | 0.2 |
| Anther work activity besides PHC | | |
| Yes | 1,233 | 31.7 |
| No | 2,654 | 68.1 |
| NR | 8 | 0.2 |
| Weekly workload | | |
| Up to 20 hours | 94 | 2.4 |
| 21 - 40 hours | 2,541 | 65.2 |
| 41 - 60 hours | 1,000 | 25.7 |
| 61 - 80 hours | 215 | 5.5 |
| 81 hours and longer | 37 | 0.9 |
| NR | 8 | 0.2 |
| Reason for rorking in the fight against COVID-19 | | |
| I already worked in the specific sector | 2,771 | 71.1 |
| I already worked in the sector and I looked for another job | 97 | 2.5 |
| Before, I worked in another sector and I was displaced by Covid-19 | 523 | 13.4 |
| I had never worked in this sector and the job opportunity arose | 153 | 3.9 |
| It is my first job | 243 | 6.2 |
| NR | 108 | 2.8 |
| Reference unit for COVID-19 assistance | | |
| Yes | 2,146 | 55.1 |
| No | 1,729 | 44.4 |
| NR | 20 | 0.5 |

it continues

sessed and PHC workers, demonstrating how the pandemic context has significantly impacted the several health services at their different levels of attention.

Regarding the professionals' perception of the appreciation, recognition and respect for their work in PHC, it is demonstrated that 25.3% of the professionals reported feeling less respected and valued by their leadership/management of the health service and 20.7% by the users. These situations are in contrast with the feeling of greater respect, appreciation and acceptance by the user population (19.6%) and the management (10.0%) (Table 4). These aspects accompany the general framework of the study, showing how much health professionals felt undervalued when facing the pandemic, regardless of the place of work.

Even with these negative perceptions, it is observed that 24.4% of PHC workers experienced a daily work experience with greater respect and better relationships with their co-workers (Table 4). This scenario accompanies the general survey, showing elements of solidarity in the work routine during the fight against COVID-19 in the various health services assessed.

**Table 3.** Professional profile and working conditions of health professionals working in PHC in the fight against COVID-19 in Brazil.

| Variables | V.Abs. | % |
|---|---|---|
| Availability of personal protective equipment (PPE) (YES) | | |
| (more than one answer is allowed) | 3.326 | 85,4 |
| Surgical mask | 3,326 | 85.4 |
| N95/PFF2 mask | 2,610 | 67.0 |
| Gown/overcoat | 3,001 | 77.0 |
| Procedure gloves | 3,674 | 94.3 |
| Ocular protection/googles | 3,164 | 81.2 |
| Disposable cap or shoe covers | 3,269 | 83.9 |
| We had to improvise | | |
| Course/training for adequate use of PPE | 1.296 | 33,3 |
| Yes | 1,296 | 33.3 |
| No | 1,706 | 43.8 |
| I learned from the colleague | 200 | 5.1 |
| Video I looked up on the internet | 682 | 17.5 |
| NR | | |
| Feeling of protection against COVID-19 | 1.968 | 50,5 |
| Yes | 1,968 | 50.5 |
| No | 1,909 | 49.0 |
| NR | | |
| Institutional support | 1.474 | 37,8 |
| Yes | 1,474 | 37.8 |
| No | 2,361 | 60.6 |
| NR | | |
| Situations that interfered with the work to fight the pandemic (I AGREE) | 3.598 | 92,4 |
| (more than one answer allowed) | 3.196 | 82,1 |
| Fake news in health is an obstacle in the fight against the new coronavirus | 3,598 | 92.4 |
| I assisted a patient who expressed belief in fake news about COVID-19 | 3,196 | 82.1 |
| The positions of the health authorities on COVID-19 have been consistent and enlightening | 1,174 | 30.1 |

Source: Machado MH, coordinator. Study: "Condições de trabalho dos profissionais de saúde no contexto da COVID-19 no Brasil". Rio de Janeiro: ENSP/CEE-Fiocruz; 2020/2021.

Regarding the health professionals' mental health, 95.3% of these PHC workers showed some significant alterations, as only 4.7% reported no changes when coping with the COVID-19 pandemic. The following stand out: sleep disturbances (15.5%), irritability or frequent crying (13.9%), stress (11.3%), difficulty concentrating (9.8%), loss of satisfaction or sadness (9 .1%), negative or suicidal thoughts (8.4%) and changes in appetite or weight (8.3%). It is noteworthy that more than half of those surveyed, that is, 52.4%, had these symptoms since the beginning of the pandemic (Table 4).

This sad reality in coping with COVID-19 affected both the assessed PHC professionals and the general universe of the study, indicating how much the pandemic made all health workers sick, associated with feelings of little appreciation and work overload. It should be noted that the PHC scenario may have been worse because the feeling of vulnerability with lack of protection and lack of training was greater than the total study population, associated with the daily life of fake news in relationships with the users.

## Discussion

Even with these organizational and funding differences related to PHC in Brazil and Portugal, similarities can be observed regarding the scope of the discussion on working conditions during the COVID-19 pandemic in PHC, corroborating other analyses of the international scenario[18,27-29,31].

According to Soares and Passos[36] and the report by the Family Health Units – National

**Table 4.** Perceptions about the life and daily routine of health professionals working in PHC when coping with COVID-19 in Brazil.

| Variables | V.Abs. | % |
|---|---|---|
| **Changes in the professional routine (more than one answer allowed)** | | |
| Lack of knowledge and uncertainties related to the disease, scenarios of new work practices and knowledge | 269 | 3.1 |
| Strenuous work (long, uninterrupted working hours, multiple shifts, poor working conditions, temporary confiscation of vacation rights, no rest, compulsory isolation in Covid-19 sectors) | 2,033 | 23.7 |
| On the verge of exhaustion (work overload, multiple functions and responsibilities, stress, conflicts of interest, exhaustion, anxiety, devaluation of what you do, regret about choosing a profession, Burnout Syndrome) | 1,121 | 13.1 |
| Complexity and rigidity of the work process in the fight against Covid-19 | 759 | 8.8 |
| Fear of Death and imminent contamination | 746 | 8.7 |
| Ritualistic process of garmenting and ungarmenting PPE | 226 | 2.6 |
| Biosafety and contradictions (ongoing demands to follow safety and security measures while working and shortages of PPE) | 1,413 | 16.5 |
| Sad and tense hospital environment during Covid-19 care | 404 | 4.7 |
| Deprivation of social life among co-workers | 153 | 1.8 |
| Deprivation of freedom to come and go and socializing with friends | 315 | 3.7 |
| Deprivation of family life | 351 | 4.1 |
| Tension on the way home and vice versa | 49 | 0.6 |
| Risk group professionals | 19 | 0.2 |
| Sleep, mood, appetite, weight disorders, changes in habits (sedentary lifestyle, illness in general, absences due to COVID-19, absenteeism) | 236 | 2.7 |
| Feeling grateful for saving Lives | 77 | 0.9 |
| Uncommitted and insensitive management related to the worker | 100 | 1.2 |
| Worker citizenship at risk (job losses, unemployment, loss of income, low and late wages, expenses with equipment purchases, alternative transport and food) | 315 | 3.7 |
| **Feelings about professional life (more than one answer allowed)** | | |
| More appreciated and recognized by the user population | 897 | 19.6 |
| More respected by colleagues | 397 | 8.7 |
| Best team relationship | 719 | 15.7 |
| More embraced by the leadership/management of the services | 459 | 10.0 |
| Less appreciated and recognized by the user population | 945 | 20.7 |
| Less respected and appreciated by the leadership/management | 1,155 | 25.3 |
| **Significant alteration (more than one answer allowed)** | | |
| Sleep disturbance, such as insomnia or hypersomnia | 2,136 | 15.5 |
| Change in appetite/weight | 1,139 | 8.3 |
| Loss of confidence in oneself, the team or the work done | 891 | 6.5 |
| Difficulty experiencing happiness | 760 | 5.5 |
| Negative feeling of the future/negative, suicidal thoughts | 1,163 | 8.4 |
| Irritability/frequent crying/general disturbances | 1,918 | 13.9 |
| Loss of career or life satisfaction/sadness/apathy | 1,260 | 9.1 |
| Difficulty concentrating or slow thinking | 1,347 | 9.8 |
| Increased consumption of medications, alcohol or energy drinks, cigarettes | 823 | 6.0 |
| Inability to relax/stress | 1,565 | 11.3 |
| Other alterations | 150 | 1.1 |
| Did not experience any significant alterations | 649 | 4.7 |
| **Duration of alterations** | | |
| Last week | 76 | 2.4 |
| Last 15 days | 137 | 4.3 |
| Last month | 959 | 30.0 |
| Since the start of the pandemic | 1,679 | 52.4 |
| Since before the pandemic | 351 | 11.0 |

Source: Machado MH, coordinator. Study: "Condições de trabalho dos profissionais de saúde no contexto da COVID-19 no Brasil". Rio de Janeiro: ENSP/CEE-Fiocruz; 2020/2021.

Association (USF-AN)[33,37] of 2021, summarized in Figure 1, it is demonstrated, in the working conditions of PHC health professionals in the Portuguese reality, the work overload added to the demands of strategies to face the COVID-19 pandemic and the dynamics of usual PHC activities; the scarcity of human resources for health actions in the pandemic context and even the lack of supplies and personal protective equipment (PPE) at the beginning of the pandemic in 2020. These situations ended up resulting in a scenario of significant attrition of health professionals, disclosing the consequent clinical picture of burnout syndrome among these workers[33,36,37].

In Brazil, according to the data presented in the study on "Working conditions of health professionals in the context of COVID-19 in Brazil", an exhausting workload is also pointed out in PHC, accompanied by the feeling of not being protected at work and having little institutional support for workers and the health units where they were working.

These situations showed a scenario of important deleterious changes for the group of

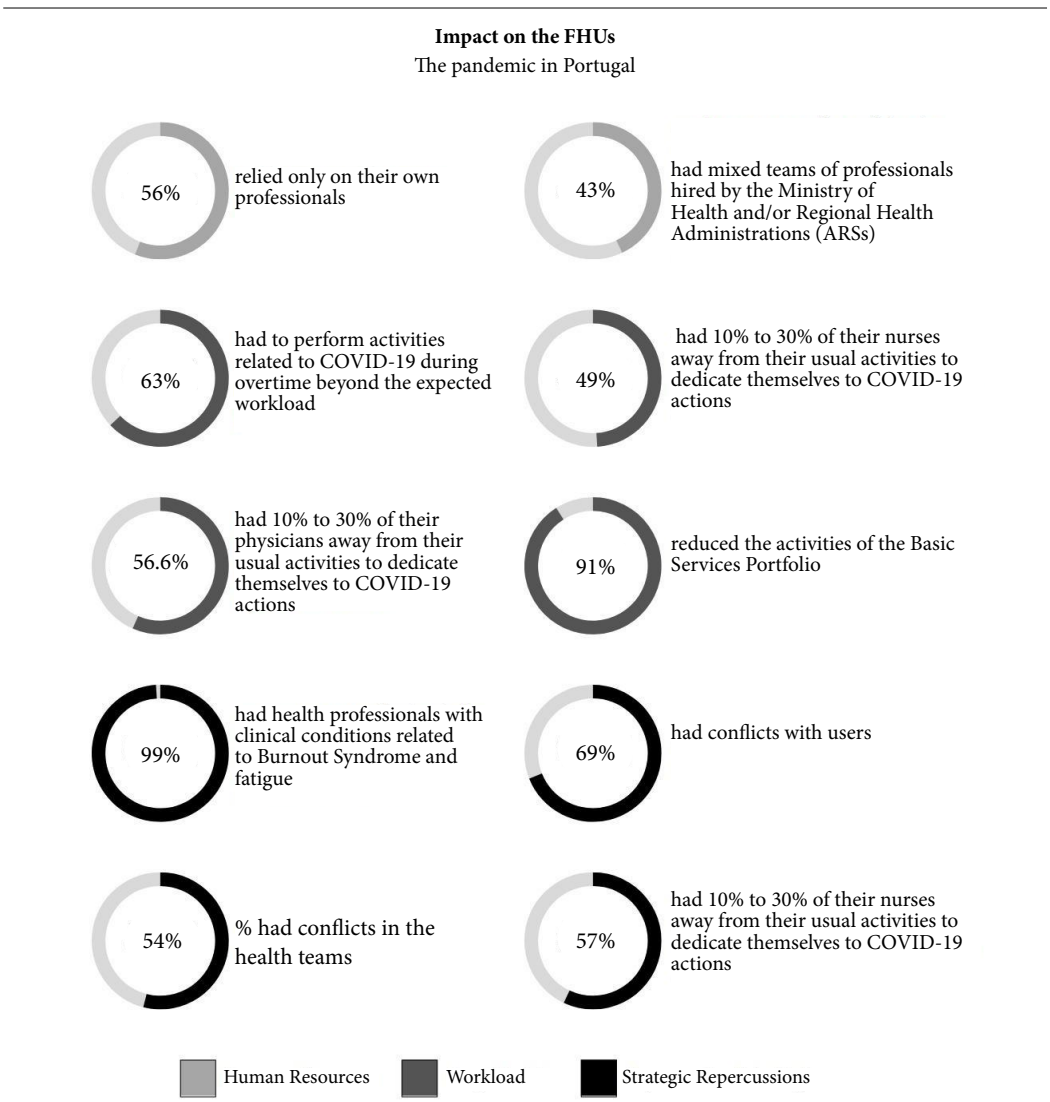


**Figure 1.** Impact on the work of the Family Health Units (FHUs) in coping with the COVID-19 pandemic until December 2021, in Portugal.

Source: adapted from Family Health Units – National Association (USF-AN) (2021).

interviewed professionals, such as sleep disturbances, stress, negative thoughts, irritability and others, added to the feeling of less appreciation at work either by the management or by the user population.

It is noteworthy that in the Brazilian reality, according to the data presented in this article on the profile of PHC health professionals when coping with the COVID-19 pandemic, there is a work context consisting of multiple types of hiring/employment, corroborating other studies carried out in Brazil by Bousquat et al.[38] (2021) and Frota et al.[30] (2022), which point out that this scenario of different types of employment relationships contributes to the high turnover of professionals in PHC, with an average time working in the same UBS of 1 to 2 years. These authors highlight that the pandemic may have worsened this pattern of turnover in PHC.

Added to that, in the Brazilian scenario, is the conjuncture of lack of a strategic coordination of the federative entities, that is, federal institutions, state governments and municipalities in the face of the COVID-19 pandemic associated with the spread of fake news. These situations, accompanied by insufficient PPE for health workers, may have had a considerable impact on the number of deaths from COVID-19 among health professionals in Brazil and on the morbidity and mortality of the general population in the country, due to the infection by COVID-19 and the SARS/SARS-CoV-2[19,39].

Other impacts of coping with the COVID-19 pandemic in PHC in Brazil were the difficulties in continuing care for people with chronic diseases and the failure to maintain collective activities, both influenced by the context of social distancing and the need to organize care and actions aimed at fighting against COVID-19, especially in the first year of the pandemic, in 2020[30,38].

In Portugal, it was also observed that, between the years 2020 and 2021, several health care offers from FHUs were impacted by the demand for strategies created for the pandemic scenario[33,37]. It is noteworthy that these situations were also pointed out in other services that constitute the Portuguese PHC[36].

In the Portuguese scenario, epidemiological surveillance, telemedicine, screening and monitoring strategies for COVID-19 cases, in addition to expanding vaccination coverage are examples of measures that may have contributed to the workload in PHC/CSP in Portugal[40,41].

It is worth noting that the context of the COVID-19 pandemic, internationally, also raised an intense ethical debate on care and health strategies aimed at the pandemic[42].

For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO), in April 2020, already given a declaration containing ethical and bioethical references related to the fight against the COVID-19 pandemic, aiming to draw the attention of governments regarding the protection of the vulnerable, the allocation of resources and access to health care for all, with cooperation and solidarity at a global level[43].

During the period in which Fiocruz research was carried out (2020-2022), some studies on conflicts and bioethical dilemmas during the pandemic were carried out. One of these was coordinated by Deisy Ventura and Rossana Reis (2021)[44] and, based on normative acts, obstruction actions and propaganda against public health developed by federal authorities, in the period from February 3, 2020 to May 28, 2021, concluded that the federal government was "engaged" and was "efficient" in the "broad dissemination" of the coronavirus in the national territory, relying on the thesis of herd immunity by contagion[45].

Taking the theory of the Ethics of Public Responsibility as a reference, according to which responsibility is the value that must govern practical actions and that responsibility concerns the care of the other being, given the threat to their vulnerability, it turns into concern about the human condition of being able to provide care[46]. It can be inferred from this conception of the ethics of public responsibility that different ethical infractions occurred throughout the pandemic within the scope of the Brazilian federal public administration.

Therefore, in the reality of Brazil, including the daily work in PHC, it was noted that ethical discussions about health care focused on COVID-19 were permeated by fake news and political decisions at the federal level that denied distancing guidelines and use of masks, in addition to encouraging drug treatments without scientific evidence and the discrediting the effect of vaccination[39,44].

According to Correia, (2020)[47] these situations described above were very different from the reality in Portugal, where restrictive measures were taken in the transmission chains of COVID-19 due to a political consensus around the public management of the health emergency of the pandemic[47].

Hence, it is noteworthy that several aspects analyzed throughout this article indicate that

work in the Brazilian PHC may have been more precariously done than in other countries with PHC-oriented health systems, such as the case of Portugal, even with the noticeable burden of the COVID-19 pandemic on SUS and SNS and, consequently, on PHC and CSP.

## Final considerations

Relativizing the death of thousands, hundreds, dozens or even a single person is ignoring life and the human condition. Acting in accordance with the fullness of life and the future of humanity must be an intrinsic responsibility of those elected to manage the public interest.

During this complex pandemic period experienced worldwide, the statement by Dallari (2003)[48] gains strength: "The consideration of ethical criteria becomes absolutely necessary, so that the health of all human beings is among the priorities in the use of available resources, as well as so that advances in science and technology, when true, have as a parameter of validity the benefit of the human person".

In the international and national scenarios, while health workers are experiencing a moment of great visibility for facing the Covid-19 pandemic, since they are, immediately and dramatically, at the front line of care for the population; they are at greater risk for Covid-19 infection and have protection difficulties to carry out their activities, at different levels of care, such as PHC.

These situations can be observed in the Brazilian and Portuguese realities, because even with different historical, social and economic contexts, it was noticed that there was work overload and deficiencies in relation to the working conditions in PHC and the CSP, in the respective public systems of health, SUS and SNS.

Collapses occurred in both systems, such as the case in the city of Manaus in Brazil and the high occupancy rate of intensive care unit beds in the North of Portugal, both observed during the second wave of the COVID-19 pandemic, which started between the months of October and November of 2020[49-51].

However, it should be noted that in the Portuguese scenario, the strong central political coordination to face COVID-19, with several public health strategies, such as surveillance, extensive screening and strong incentives for vaccination and articulation of various actions, such as those developed by the Portuguese PHC, attenuated the effects of the pandemic on Portuguese society, unlike the Brazilian reality.

Thus, it is worth noting that it is important, in this process of fighting the pandemic, to highlight the need for changes in the world of health work and its specificities at the different levels of health care, including PHC. After all, both in the pandemic and post-pandemic scenarios, the realities experienced by PHC workers are essential in understanding the need for adjustments for better working conditions in public health and for the adequate operation of universal health systems worldwide, as in the cases in Brazil and Portugal.

## Collaborations

RPO Santos: conception and design of the article; data collection, analysis and interpretation and manuscript writing and content review. JA Nunes: conception and design of the article, analysis and interpretation of data and critical review of the content. NG Dias: conception and design of the article; data collection, analysis and interpretation and manuscript writing and content review. AS Lisboa: conception and design of the article; collection, analysis and interpretation of data and writing of the manuscript. VH Antunes: conception and design of the article and analysis and interpretation of the data. EJ Pereira: conception and design of the article, collection, analysis and interpretation of data and writing of the manuscript and critical review of the content. SN Barbosa: conception and design of the article; analysis and interpretation of data and writing of the manuscript.

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## References

1. Prado Júnior C. *Formação do Brasil contemporâneo: colônia*. São Paulo: Ed. Brasiliense; 2000.
2. Lobato LVC, Giovanella L. Sistemas de saúde: origens, componentes e dinâmica. In: Giovanella L, Escorel S, Lobato LVC, Noronha JC, Carvalho AI, organizadores. *Políticas e sistema de saúde no Brasil*. Rio de Janeiro: Editora Fiocruz; 2012. p. 89-120.
3. Corbo AMD'A, Pontes A, Morosini MVGC. Saúde da família: construção de uma estratégia de atenção à saúde. In: Morosini MVGC, CORBO A, organizadores. *Modelos de atenção e a saúde da família*. Rio de Janeiro: EPSJV/Fiocruz; 2007. p. 69-106.
4. Brasil. Ministério da Saúde (MS). Portaria nº 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União* 2017; 22 set.
5. Portugal. Assembleia da República. Lei nº 56/79, de 15 de setembro de 1979. *Diário da República* 1979; 15 set.
6. Portugal. Ministério da Saúde e Assistência. Decreto -Lei n.º 413/71, de 27 de setembro. *Diário do Governo* 1971; 27 set.
7. Carapinheiro G, Page P. As determinantes globais do sistema de saúde português. In: Hespanha P, Carapinheiro G, organizadores. *Risco social e incerteza: pode o Estado social recuar mais?* Porto: Ed. Afrontamento; 2001. p. 81-121.
8. Campos, AC, Simões J, Fernandes AC. *40 anos de abril na saúde*. Coimbra: Almedina; 2014.
9. Teixeira L. *A Reforma do Centro de Saúde: percursos e discursos*. Lisboa: Mundos Sociais; 2012.
10. Portugal. Ministério da Saúde. Decreto-Lei nº 298/2007 de 22 de Agosto. *Diário da República* 2007; 22 ago.
11. Portugal. Ministério da Saúde. Decreto-Lei nº 28/2008, de 22 de Fevereiro. *Diário da República* 2008; 22 fev.
12. Haldane V, De Foo C, Abdalla SM, Jung AS, Tan M, Wu S, Chua A, Verma M, Shrestha P, Sing S, Perez T, Tan SM, Bartos M, Mabuchi A, Bonk M, McNab C, Werner GK, Panjabi R, Nordstrom A, Legido-Quigley H. Health systems resilience in managing the COVID-19 pandemic: lessons from 28 countries. *Nat Med* 2021; 27(6):964-980.
13. World Health Organization (WHO). The impact of COVID-19 on health and care workers: a closer look at deaths. *Health Workforce Department – Working Paper 1* 2021; set.
14. World Health Organization (WHO). Protecting, safeguarding and investing in the health and care workforce. *74º Seventy-fourth World Health Assembly.* United Nations, New York; 2021, may 26.
15. Machado M, Santos R, Dos Santos Neto P, Santana V, Campos F. Health Workforce: Situations and Challenges in Latin America, the Caribbean, and Brazil. *Oxford Research Encyclopedia of Global Public Health* [serial on the internet]. 2022. [cited 2022 jul 3]. Available from: https://oxfordre.com/publichealth/view/10.1093/acrefore/9780190632366.001.0001/acrefore-9780190632366-e-332

16. World Health Organization (WHO), International Labour Organization (ILO). *Caring for those who care: guide for the development and implementation of occupational health and safety programmes for health workers*. Geneva: WHO; 2022.
17. Hanson K, Brikci N, Erlangga D, Alebachew A, De Allegri M, Balabanova D, Blecher M, Cashin C, Esperato A, Hipgrave D, Kalisa I, Kurowski C, Meng Q, Morgan D, Mtei G, Nolte E, Onoka C, Powell-Jackson T, Roland M, Sadanandan R, Stenberg K, Vega Morales J, Wang H, Wurie H. The Lancet Global Health Commission on financing primary health care: putting people at the centre. *Lancet Glob Health* 2022; 10(5):715-772.
18. Kumpunen S, Webb E, Permanand G, Zheleznyakov E, Edwards N, Van Ginneken E, Jakab M. Transformations in the landscape of primary health care during COVID-19: themes from the European Region. *Health Policy* 2022; 126(5):391-397. 2022.
19. Machado MH, Teixeira EG, Freire N, Pereira EJ, Minayo MCS. Óbitos de médicos e da equipe de enfermagem por COVID-19 no Brasil: uma abordagem sociológica. *Cien Saude Colet* 2022; 28(2):405-419.
20. World Health Organization (WHO). Timeline: WHO's COVID19 response [Internet]. 2021. [cited 2022 jul 3]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline
21. Ministério da Saúde (MS). Secretaria de Vigilância em Saúde. COVID-19 casos e óbitos. [acessado 2021 dez 6]. Disponível em: https://infoms.saude.gov. br/extensions/convid-19_html/covid-19_html.html
22. Johns Hopkins University (JHU). Center for Systems Science and Engineering (CSSE). Covid-19 Dashboard [Internet]. 2022. [acessado 2022 nov 5]. Available from: https://coronavirus.jhu.edu/map.html
23. Conselho Federal de Medicina (CFM). Memorial aos médicos que se foram durante o combate à COVID-19 [Internet]. 2020. [acessado 2022 jul 3]. Disponível em: https://memorial.cfm.org.br/
24. Conselho Federal de Enfermagem (COREN). Observatório da Enfermagem [Internet]. 2021. [acessado 2022 jul 3]. Disponível em: http://observatoriodaenfermagem.cofen.gov.br/
25. Internacional de Serviços Públicos (ISP). Profissionais da saúde e a COVID-19 no Brasil – relatório especial outubro de 2022 em dados e gráficos [Internet]. 2022. [acessado 2022 jul 3]. Disponível em: https://pop-umbrella.s3.amazonaws.com/uploads/a8783437-7df0-408d-b8bf-f05113b32402_Profissionais_de_sa__de_na_pandemia_4_.pdf
26. Silva E. Quase 28 mil profissionais de saúde em Portugal infetados com Covid-19 morreram [Internet]. *Expresso* 2021; mar 1. [acessado 2023 jun 23]. Disponível em: https://expresso.pt/sociedade/2021-03-01-Quase-28-mil-profissionais-de-saude-em-Portugal-infetados-com-covid-19-morreram
27. Huston P, Campbell J, Russell G, Goodyear-Smith F, Phillips RL Jr, van Weel C, Hogg W. COVID-19 and primary care in six countries. *BJGP Open* 2020; 4(4):bjgpopen20X101128.
28. Londoño-Ramírez A, García-Pla S, Bernabeu-Juan P, Pérez-Martínez E, Rodríguez- Marín J, Van-Der Hofstadt-Román C. Impact of COVID-19 on the anxiety perceived by healthcare professionals: differences between primary care and hospital care. *Int J Environ Res Public Health* 2021; 18(6):3277.
29. Kendrick D, Agius Rm, Robertson JF, Sewell HF, Stewart M. Was enough, and is enough, being done to protect the primary care workforce from COVID-19? *Br J Gen Pract* 2021; 71(704):100-101.
30. Frota AC, Barreto ICHC, Carvalho ALB, Ouverney ALM, Andrade LOM, Machado NMS. Vínculo longitudinal da Estratégia Saúde da Família na linha de frente da pandemia da COVID-19. *Saude Debate* 2022; 46(esp. 1):131-151.
31. Taylor M, Kinder K, George J, Bazemore A, Mannie C, Phillips R, Strydom S, Goodyear-Smith F. Multinational primary health care experiences from the initial wave of the COVID-19 pandemic: a qualitative analysis. *SSM Qual Res Health* 2022; 2:100041.
32. Machado MH, organizadora. *Pesquisa: condições de trabalho dos profissionais de saúde no contexto da COVID-19 no Brasil*. Rio de Janeiro: ENSP/CEE-Fiocruz; 2020/2021.
33. Unidades de Saúde Familiar – Associação Nacional (USF-AN). *O impacto que o apoio às unidades e aos serviços criados no âmbito da pandemia por COVID-19 tem tido nos Cuidados de Saúde Primários*. Porto: USF-AN; 2021.
34. Portugal, Ministério da Saúde, Administração Central do Sistema de Saúde. Cuidados de Saúde Primários [Internet]. 2020. [acessado 2023 jun 16]. Disponível em: https://www.acss.min-saude.pt/category/cuidados-de-saude/primarios/?lang=pt
35. Portugal, Serviço Nacional de Saúde (SNS). Governo aprova a criação de mais 20 USF Modelo B [Internet]. 2021. [acessado 2023 jun 16]. Disponível em: https://www.sns.gov.pt/noticias/2021/09/30/governo-aprova-a-criacao-de-mais-20-usf-modelo-b/
36. Soares B, Passos C. O impacto da COVID-19 na gestão de operações de unidades de saúde: um estudo qualitativo. *Gestão Desenvolvimento* 2022; 30:233-253.
37. Unidades de Saúde Familiar – Associação Nacional (USF-AN). *COVID-19: não pode ter a mesma resposta de 2020 ou 2021*. Porto: USF-AN; 2021.
38. Bousquat A, Giovanella L, Facchini LA, Mendonça MHM, Cury GC, Nedel F. *Desafios da Atenção Básica no enfrentamento da pandemia da COVID-19 no SUS*. Rio de Janeiro: Rede de Pesquisa em Atenção Primária Abrasco; 2021.
39. Xavier DR, Silva EL, Lara FA, Silva GRR, Oliveira MF, Gurgel H, Barcellos C. Involvement of political and socio-economic factors in the spatial and temporal dynamics of COVID-19 outcomes in Brazil: a population-based study. *Lanc Reg Health Am* 2022; 10:100221.
40. Barros SG, Cruz DN, Souza JC, Silva LA, Guimarães MC, Rezende MM, Paim J, Silva LMV. Vigilância e elevada cobertura vacinal: como Portugal superou o colapso e retomou o controle da Pandemia. *Cien Saude Colet* 2023; 28(5):1297-1312.

41. Correia PM, Mendes I, Pereira SP, Subtil I. The combat against COVID-19 in Portugal: How state measures and data availability reinforce some organizational values and contribute to the sustainability of the National Health System. *Sustainability* 2020; 12(18):7513.
42. Kramer JB, Brown DE, Kopar PK. Ethics in the Time of Coronavirus: Recommendations in the COVID-19 Pandemic. *J Am Coll Surg* 2020; 230(6):1114-1118.
43. Organização das Nações Unidas para a Educação, a Ciência e a Cultura (UNESCO). Declaração sobre a COVID-19: considerações éticas sob perspectiva global [Internet]. 2020. [acessado 2022 jun 3]. Disponível em: https://unesdoc.unesco.org/ark:/48223/pf0000373115_por
44. Ventura DFL, Reis R. A linha do tempo da estratégia federal de disseminação da covid-19. Direitos na pandemia: mapeamento e análise das normas jurídicas de resposta à COVID-19 no Brasil [Internet]. 2021. [acessado 2022 ago 20]. Disponível em: https://static.poder360.com.br/2021/01/boletim-direitos-na-pandemia.pdf
45. Shores N. Governo se empenhou em disseminar COVID-19, diz USP em estudo para CPI [Internet]. *Poder 360* 2021; jun 7. [acessado 2022 set 18]. Disponível em: https://www.poder360.com.br/governo/governo-se-empenhou-em-disseminar-covid- 19-diz-usp-em-estudo-para-cpi/
46. Jonas H. A natureza modificada pelo agir humano. In: Jonas H. *O princípio da responsabilidade: ensaio de uma ética para a civilização tecnológica*. Rio de Janeiro: Contraponto; 2006. p. 31-34.
47. Correia T. A gestão política da COVID-19 em Portugal: contributos analíticos para o debate internacional. *Saude Debate* 2020; 44(esp. 4):62-72.
48. Dallari DA. Ética sanitária. In: Aranha MI, organizador. *Direito sanitário e saúde pública.* Brasília: MS; 2003.
49. Amato G. Como Portugal passou de exemplo ao caos na segunda onda da Covid-19 [Internet]. *O Globo* 2021; 1 fev. [acessado 2023 jun 25]. Disponível em: https://oglobo.globo.com/mundo/como-portugal-passou-de-exemplo-ao-caos-na-segunda-onda-da-covid-19-24863536
50. Covid-19: Manaus vive colapso com hospitais sem oxigênio, doentes levados a outros estados, cemitérios sem vagas e toque de recolher [Internet]. *Portal G1* 2021; 14 jna. [acessado 2023 jun 15]. Disponível em: https://g1.globo.com/am/amazonas/noticia/2021/01/14/covid-19-manaus-vive-colapso-com-hospitais-sem-oxigenio-doentes-levados-a-outros-estados-cemiterios-sem-vagas-e-toque-de-recolher.ghtml
51. Barreto IC, Costa Filho RV, Ramos RF, Oliveira LG, Martins NR, Cavalcante FV, Andrade LOM, Santos LMP. Health collapse in Manaus: the burden of not adhering to non-pharmacological measures to reduce the transmission of COVID-19. *Saude Debate* 2021; 45(131):1126-1139.

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