Reflections on the health-work relation and exposure to COVID-19

Reflexão sobre a relação saúde-trabalho e exposição à COVID-19

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ABSTRACT | The pandemic of the new coronavirus (SARS-CoV-2) has brought theoretical and practical challenges in the scientific and social fields, intensifying already existing problems, such as the relationship between working conditions and the health of the working class. Workers are key players both in the control and the spread of the disease, and especially those in the healthcare sector since they are necessarily in contact with other people. Therefore, the present article aimed to reflect, from an occupational health perspective, on the guidelines of the Brazilian Ministry of Health, expressed in publications on the clinical management of suspected, confirmed, or influenza-like cases, and the recommendations for the protection of workers who are in charge of treating the 2019 novel coronavirus disease. The present analysis highlighted the importance of the development of more comprehensive measures by the State that are in line with the reality of many workers in the context of the pandemic, thus transcending the prescriptive, biological, and individual character that disregards the social determinations that guide the possible care measures.

Keywords | coronavirus infections; worker health; occupational health; health policy.

RESUMO | A pandemia do novo coronavírus (SARS-CoV-2) trouxe desafios teórico-práticos nos âmbitos científico e social, intensificando problemas já existentes, como a relação entre as condições de trabalho e o adoecimento da classe trabalhadora. É fato que os trabalhadores, especialmente os da área da saúde, constituem-se em protagonistas fundamentais tanto para o controle quanto para a propagação da pandemia por estar necessariamente em contato com outras pessoas. O presente artigo pretende refletir, a partir do campo da saúde do trabalhador, sobre as orientações do Ministério da Saúde do Brasil, expressas em publicações relativas ao manejo clínico de casos suspeitos, confirmados ou com quadro de síndrome gripal, e as recomendações de proteção aos trabalhadores no atendimento à doença do coronavírus 2019 (COVID-19). Destaca-se a importância do desenvolvimento de medidas mais amplas por parte do Estado de acordo com a realidade de muitos trabalhadores no contexto da pandemia, que ultrapassem o caráter prescritivo, biológico e individual que desconsidera as determinações sociais que norteiam as possíveis medidas de cuidado.

Palavras-chave | infecções por coronavírus; saúde do trabalhador; doenças do trabalho; política de saúde.

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Funding: None

Conflicts of interests: None

How to cite: Silva TM, de Carvalho M. Reflections on the health-work relation and exposure to COVID-19. Rev Bras Med Trab. 2021;19(3):389-396. http://dx.doi.org/10.47626/1679-4435-2021-693

Rev Bras Med Trab. 2021;19(3):389-396

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INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared the outbreak of the new coronavirus (SARS-CoV-2) a pandemic. The alarming levels of virus spread among humans and between countries required national health authorities to develop plans for disease control and prevention measures and protocols to contain the virus spread and prevent overloading of health services. Since the main clinical manifestations of the 2019 novel coronavirus disease (COVID-19) occur in the respiratory tract, some population groups are more likely to develop a worsened clinical condition due to comorbidities or advanced age, requiring oxygen support in intensive care units. Therefore, the implementation of public policies and actions to contain the spread of the virus has become crucial.

The COVID-19 outbreak was announced based on cases that occurred in a market in the Chinese municipality of Wuhan, capital of Hubei province, reported to the WHO on December 31, 2019. These markets are referred to as “wet markets” because they trade and handle live animals, allowing the immediate slaughter of these animals for consumption by buyers. Although the exact cause is still unknown, the hypothesis is that the virus contagion occurred directly from an animal to a human. This has been considered the main trigger for the first infections by COVID-19 in the world, which led to the spread of the disease across all continents, with a total of 19,193,661 people infected on the planet as of early August 2020.

Therefore, given its connection with work, the pandemic has increasingly shown different incidence and lethality rates between social classes, ethnicities, and sexes. As shown by analyses of the origin of the pandemic linked to the food production chain, the transit of workers with formal or precarious bonds who did not get social or state support to stay at home, or the case of workers whose activities are considered essential in the pandemic, the virus has shown to be less democratic than the purely biological understanding. Therefore, we discuss the measures for prevention and containment of the virus recommended by the WHO and the strategies adopted by the ministries of health, especially in Brazil, to prevent the illness of workers in essential services that are on the front lines fighting the coronavirus, as well as the suggestions from the field of collective health, especially worker’s health, concerning the workers exposed.

Workers that provide essential services comprise several categories that have to maintain their work activity even in the face of imminent risk of coronavirus infection, including health care and pharmacy workers; delivery workers; freight and passenger transportation workers; gas station attendants; food and product sales and supply services; janitors; police officers; firefighters; water, gas, electricity, and Internet maintenance staff; public safety workers; garbage collectors and workers performing mortuary services; among many other categories.

There are also informal workers, who have no employment bonds or fixed income and need to maintain their work activity to preserve their basic subsistence and that of their families. For these people, social isolation, as advocated by public agencies and the informative media, is an impractical recommendation, leaving them only with individual protection measures. These preventive measures are often insufficient since the workers are not able to acquire the products suggested to prevent exposure to the virus, showing the precariousness and vulnerability to which they are submitted.

These workers lack strategies to preserve their health and perceive them as necessary to contain the spread of the virus, especially in the case of health professionals. Besides working simultaneously with patients and employees, health professionals are often subjected to working conditions that are inadequate for the complexity of their activities. The context of the pandemic intensifies the need to foster the debate on workers’ health, especially regarding the different proposals for intervention in the fields of occupational medicine and occupational health. These proposals approach the health-work relationship from the standpoint of making the individual responsible for getting sick, by assigning to the worker all the responsibility for his health.
In general, both occupational medicine and occupational health are based on a hegemonic conception of the health-disease process and its relationship with work as one of the risk factors. The first is described in the literature as the inaugural mark of health services for workers, and its main characteristics are services centered on a medical professional trusted by the employer and an exclusive healthcare practice in the workplace. Occupational health emerges with a proposal for a more comprehensive intervention regarding the composition of the team of health professionals, with services based on multiprofessional practices, but still focused on the environment and the worker as objects of care intervention.7

Although they have introduced novel proposals according to historical contexts, these conceptions and practices were not spared from questioning, mainly due their insufficiency in assessing the causative factors of workers’ health problems, as well as their limits in promoting the demedicalization of the health-disease process.7 Based on these criticisms, several social movements, unions, and health professionals promoted debates that contributed to the construction of a broader understanding of the social determinations of the relationship between health and work. Known as worker health, this area is currently a critical field within collective health, addressing aspects of occupational health while trying to transcend it.8

The leading role of workers in this social movement from industrialized countries provided the initial basis for the field of worker health. Questioning aspects such as the meaning of work, the use of the body, and the obsolete values that marked the generation of the 1960s and 1970s, this movement claimed workers’ participation in topics involving health and safety leading to the development of new and significant social policies for the working class. Later, the theory of social determination was responsible for adding new questions to the conceptions of occupational medicine and occupational health.7 These questionings yielded the opportunity to establish a new model, able to recognize workers not only as objects of medical intervention, but also as “collective political subjects, depositaries of knowledge emanating from experience, and essential agents of transforming actions.”8 (p. 28). Therefore, in the field of worker health, “workers seek to be recognized in their knowledge, question changes in work processes, particularly the adoption of new technologies, exercise the right to information, and refuse work that is dangerous or risky to their health.”7 (p. 347).

In this article, we presented a discussion based on the protocols made available by the Brazilian Ministry of Health and on bibliographic and documental review in digital platforms such as SciELO, Virtual Health Library (Biblioteca Virtual em Saúde - BVS) and the National network for the comprehensive attention to worker’s health (Rede Nacional de Atenção Integral à Saúde do Trabalhador - RENAST), besides online newspapers articles.

THE MINISTRY OF HEALTH’S GUIDELINES

The Brazilian Ministry of Health made available on its online platform, material designed to assist health care managers and workers in the use of strategies to minimize the exposure of professionals to the virus and contribute to the control of the virus within health services. The material consists of 2 publications with guidelines on the clinical management of suspected, confirmed, or influenza-like9 cases and recommendations for the protection of workers in the care of COVID-19.10

The first is dedicated to guiding the clinical management of patients diagnosed with the virus.9 It has an informative character and aims to update health care professionals and managers on the clinical procedures at the different levels of complexity of the Brazilian public Unified Health System (SUS), from primary to specialized care, also addressing the appropriate approach in special cases, such as pregnant women, children, and indigenous peoples.

The protocol classifies cases into mild, moderate, or severe, according to severity. For mild cases, it indicates the search for technological strategies, such as
telemedicine or virtual family health clinic, to prevent patients from seeking health services when there is no need for face-to-face care. In cases considered moderate, the patient does not present signs of severity but needs hospitalization to monitor the clinical condition, and admission to the Intensive Care Unit (ICU) is not essential. The protocol also guides the specific clinical procedure for severe cases, providing information on early therapy and monitoring, the need for testing, and referrals to ICU admission. The protocol also provides health professionals with psychological support, teleconsultations to address questions about clinical management in primary care and specialized care, and a flowchart to guide the correct approach for mild, suspected, or confirmed cases of COVID-19 and for patients with respiratory failure.

This protocol also provides recommendations on the organization and structuring of work in health services to protect health professionals and preserve the workforce. Surveillance and monitoring of the health of professionals are considered passive when they must self-assess the presence of COVID-19 symptoms, and active when an assessment is performed before each professional’s work shift. Return-to-work strategies for professionals who had COVID-19 symptoms or confirmed laboratory tests results were also included.

The material also proposes measures for the organization of health services, requiring the availability of products for hand hygiene in strategic locations and the use of personal protective equipment (PPE) by health professionals. The use of PPE is not required in sectors that have no contact with patients, such as the administrative sector, and in these cases, only the use of cloth masks is indicated during the exercise of the work in the institution.

Regarding the structure of the services, the Brazilian Ministry of Health recommends that separate wards be made available for suspected or confirmed patients with COVID-19, that physical barriers or partitions be installed to guide and treat patients, and that cafeterias and restrooms be organized to allow a minimum distance of 1 meter between workers. It also recommends strengthening cleaning and disinfection procedures for surfaces, objects, and equipment. If meetings are required, the protocol recommends that they be held by remote means, such as videoconferencing.

The second protocol provides more specific recommendations for the protection of workers involved in the treatment of influenza syndromes, especially those caused by SARS-CoV-2. The document provides detailed guidance on care in the workplace and aims to assist healthcare facilities in implementing actions to minimize worker exposure and prevent the circulation of the virus in health institutions.

Thus, the first piece of information provided by the document intends to inform and update health professionals on the transmission, clinical manifestation, and complications resulting from COVID-19. In this first moment, technological tools such as digital platforms, cell phone applications, telephone support consulting, and training courses on SARS-CoV-2 and PPE were also publicized. These tools seek to provide health care workers with new knowledge and keep them informed about COVID-19 issues.

Next, based on the Brazilian Federal Constitution of 1988, on Convention 155 of the International Labor Organization, and on the SUS Organic Law n° 8080/1990, the document lists the obligations of health services regarding the protection of workers’ health. It emphasizes that all health services must guarantee and develop the space for listening and representation of workers in the management of their health care, and provide the adoption of measures that promote the health of these workers, ensuring a safe work environment with full access to the necessary protection measures.

The document specifies the control measures that should intervene in the environment and work processes, which include engineering, administrative, and individual protection control measures. The first refers to strategies for organizing the environment in healthcare facilities and aims to reduce the exposure of these areas to SARS-CoV-2, as well as reducing the exposure of workers and individuals seeking the service. Some guidelines provided by the document support this policy, such as the availability of an
exclusive place for patient reception and screening, proper hand hygiene conditions for patients and professionals, surgical masks for patients who present with influenza-like symptoms, and waiting areas with free air circulation. In addition, it proposes an isolated environment for patients suspected of having COVID-19 and the installation of physical barriers, such as acrylic plates, in healthcare or administrative services, to prevent contact with non-infected people.

The administrative control and occupational safety measures are based on changes in the policies and work routine of health facilities, requiring actions from the employer and the workers themselves. The measures suggest guiding patients and colleagues in respiratory hygiene care, making communication channels available to answer workers' questions, promoting training and updates on COVID-19 and the correct use and disposal of PPE, and removing sick workers without labor losses. They also recommend making information available in different areas of healthcare facilities about handwashing, respiratory hygiene care, social distancing, and monitoring the occurrence of internal transmission of COVID-19 between patients and workers. The changes in labor and social security rights address the determinations related to workers, such as strategies for relocation to other sectors within health services; and when this is not possible, the removal of these professionals without loss of pay is indicated.

Personal protection measures include the use of quality PPE and general precautions to avoid contact with the virus. PPE is indispensable for containing SARS-CoV-2, as it provides a physical barrier between workers and pathogens. When added to other protective precautions, it is effective in minimizing the risk of exposure. Ensuring the provision of quality PPE is the responsibility of health services and employers, public or private, as well as the training and support for the correct use of this equipment.

The PPE made available by healthcare institutions should include caps, masks, long-sleeved waterproof aprons, procedure gloves, and goggles or face shields. The use of this equipment follows the need of each procedure, and respiratory protection masks such as N95 are indicated only for aerosol-generating procedures. For other procedures and for cleaning workers the use of a common mask is suggested. The use of PPE varies according to the sector and the occurrence or not of aerosol generation. The document also provides information on the disposal of health care waste, cleaning and disinfection of surfaces, and the processing of products and uniforms for health care workers.

The protocol also addresses mental health related to coping with COVID-19, a topic aimed at team leaders and managers, including self-care recommendations for health care professionals. These are recognized as key elements in coping with the pandemic; therefore, both protocols seek to contribute to the diffusion of means to reduce the exposure of health workers to COVID-19 and to prevent the reduction of the health care workforce, both items that compromise the quality and reach of health services to the population.

Although important, the guidelines are limited to the individual scope and the physical structure of the work environment, which makes them insufficient to control the exposure of health professionals to the virus, ignoring the social determinations immanent to the organization of work and the specific measures for workers in essential services other than health services. The guidelines do not consider that these professionals are also workers, and follow only the logic of self-care, the same attributed to a general and abstract population.

**REFLECTIONS ON THE GUIDELINES OF THE BRAZILIAN MINISTRY OF HEALTH FROM THE PERSPECTIVE OF WORKER HEALTH**

The protocols made available by the Ministry of Health seek to guide workers and managers of health services in the implementation of protective measures to ensure the control of the virus within institutions and prevent workers from becoming ill from exposure to COVID-19. Although little is known about the viral dynamics and ways to control virus transmission, it is recognized that health services and other workplaces...
are important foci of virus spread and that workers are a priority in the control of the pandemic.

The guidelines of the Ministry of Health emphasize the biological and individual character of the health-disease process based on the principles of classical epidemiology of cause and effect, disregarding the multiple historical, economic, sociocultural, and political factors that also determine illnesses. The challenges posed by the pandemic in the world of work have intensified pre-existing difficulties in various services. In the health sector, workers had already denounced hazardous working conditions, intense and exhausting work shifts, lack of public competitions to recruit new personnel, absence of breaks and rest, and shortage of indispensable tools for their safety, such as PPE.11

Similarly, in agribusiness sectors such as meatpacking plants, which are hubs of spatial dissemination of COVID-19 in their respective regions, illnesses resulting from the production process were already observed before the pandemic, which became another reason of concern for these workers, who perform their activities in closed and cramped environments. In the logic of capital, the concern is the industrial production pace, even if at the expense of workers’ health. Unable to adhere to the recommendations of social isolation and distancing, they remain exposed to the new virus.12

In the state of Paraná, due to outbreaks of infection by COVID-19 within swine and poultry production units, the Paraná State Department of Health (Secretaria da Saúde do estado do Paraná) issued Resolution nº 855, which determines, for industries, the organization of workstations allowing a minimum distance of 1.5 meters between workers.13 The meatpacking sector’s response, contrary to the resolution, argued that the 1.5-meter distance would imply a 43% decrease in the production level of the plants and that the 1-meter distance between workers would represent an 18% decrease. A few weeks later, the resolution was withdrawn by the state health secretariat.14,15

Another activity that proved to be more susceptible to the dissemination processes was that of application delivery workers, who also reported the impacts of the pandemic on the delivery sector. Long and intense workdays, coupled with low pay and greater exposure to the virus, are the main objections made by workers who mobilized to claim better working conditions for an essential activity in times of social distancing.16

The illness of workers as a result of the work process is a complex situation, determined by a societal structure that exposes workers to unhealthy conditions. Contemporary diseases affect the working class more severely, especially the most vulnerable fraction, which lacks the resources and material conditions for protection and effective social isolation. On the other hand, individuals from the social class that owns the means of production (such as technologies used for remote work in the context of the pandemic) manage to maintain and expand capitalist accumulation amidst the pandemic.12

National policies that identify the central role of the working class as a social determinant of the diseases and illnesses that affect the population are needed for public health but are low in the Brazilian political agenda.8 One example is the fact that only 5 of the 12 infectious and parasitic diseases on the List of Work-Related Diseases (LDRT) have a field identifying “work-relatedness” on the mandatory notification form linked to the Brazilian Information System on Notifiable Diseases.17 This hinders the identification of work-related cases in official records.18

The biosafety measures recommended by the Ministry of Health are important and necessary, but besides the availability of PPE, training on the correct use of this equipment should reinforce the invisibility of the threat and that the PPE itself may be a risk factor for contamination by COVID-19. It is also essential to consider the working conditions concerning the amount of workforce needed to meet the demand and the length of the workday, as well as the need to recompose the worker in the face of work-related fatigue.18

The text by Helioterio et al.11 points to the establishment of COVID-19 as a work-related disease for health care professionals and other exposed groups to ensure rights and work leave when necessary. It also advocates for the proper registration of occupational data in information systems. Although COVID-
19 cases are directly related to work, there is still uncertainty about its definition as a work-related disease, which explains its non-inclusion in the LDRT. These records are relevant because they guide health actions, guiding potential preventive strategies for the social determination of the disease that go beyond the relationship limited to the age group and presence of comorbidities.

Helioterio et al.\textsuperscript{11} also suggest an active search for COVID-19 infections among health care workers, expanding the testing resource for professionals exposed to contamination using protocols with steps and guidelines on measures to be adopted according to each result. Therefore, health services must apply special conditions to the exercise of work in the event of an epidemic, considering the workers included in the risk group and taking appropriate measures to avoid their exposure. In addition, off-site housing should be made available for professionals who do not wish to rest in their homes to ensure the safety of their families. Also, working hours should be resized to reduce occupational stressors and fatigue at work, since these elements compromise the performance of health professionals who often need to make quick and assertive decisions.

Thus, strategies that go beyond the biosafety dimensions addressed by the Ministry of Health are needed to ensure safety at work. Actions that go beyond the managing of health services and workers are needed to fully address the needs concerning material resources and the workforce. The testing of groups exposed to the virus and labor rights must be ensured so that workers are not affected by sick leave, and hotel accommodation should be provided for workers who are concerned about exposing their families.

**CONCLUSIONS**

This reflective article aimed to contribute to the debate on the relationship between working conditions and the spread of, exposure to, and infection with the new SARS-CoV-2. It indicated that individual protection measures, while important, are not effective in preventing exposure of workers, who need comprehensive response strategies from the State by social policies, including interventions that go beyond individual care measures. For these recommendations to be followed, social structural changes are needed in working sectors such as meatpacking plants, public transportation, and delivery applications, in which the very exercise of the work activity constitutes a risk factor for illness.

We also highlight the need to ensure transparency in the disclosure of information on the occupation and the workplace of confirmed cases of COVID-19, since it allows for the evidencing of studies on the relationship between worker health problems and the working conditions provided. This broadens the understanding of the sociocultural, historical, and economic underlying the health-disease process, expanding the analysis beyond the presence of comorbidities and age group, and considering the particularities of the context in which each citizen is inserted. Therefore, it is necessary to invest in working conditions that preserve the health of workers, especially in times of pandemic.

**AUTHOR CONTRIBUTIONS**

TMS was responsible for conceptualization, data curation, formal analysis, investigation (including data collection), methodology, visualization, and writing – original draft. MC participated in the study conceptualization, data curation, formal analysis, methodology, project administration, supervision, and writing – original draft and review & editing. All authors have read and approved the final version submitted and take public responsibility for all aspects of the work.
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