

Occupational health and the biopsychosocial aspects of health professionals in the face of the Covid-19 Pandemic: Integrative Literature Review

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Received: 09 Nov 2020; Received in revised form: 05 Dec 2020; Accepted: 14 Dec 2020; Available online: 27 Dec 2020

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Abstract— *Objetives: to verify in the literature, the situations of health workers in coping with the covid-19 pandemic. Methodology: This is a bibliographic, descriptive, integrative literature review type analysis, an Evidence Based Practice instrument. A bibliographic survey was carried out in digital databases, according to pre-established methodological rigor; information was collected in November 2020, in the SCIELO databases where 10 articles were used according to inclusion criteria. Results: the findings refer to the health of health professionals in a broad way, analyzing not only their physical well-being but also the biopsychosocial well-being. Conclusion: It becomes evident the significant challenges experienced by health professionals, which reflects not only in their lives but in the lives of millions of others, because it is through these professionals that there is help in facing the current epidemiological situation. This is a clear reminder of the neglect and little importance of the biopsychosocial well-being of this employer.*

Keywords— *Occupational Health, Health Personnel, Pandemics, Coronavirus Infections, Communicable Diseases.*

I. INTRODUCTION

Occupational Health is the set of measures that, through actions of epidemiological surveillance and health surveillance. It aims for the worker a healthy environment, being valuable for good in collective and individual. Occupational health guarantees the promotion and protection of the health of workers, aiming at the recovery

and rehabilitation of health, it is an important strategy not only to guarantee the health of workers, but also to contribute positively to productivity, product quality, motivation and satisfaction of work and, therefore, for the general improvement in the quality of life of each individual and the whole community, it is a collective asset (Brazil, WHO, 2020).

According to ordinance no. 1,823, of August 23, 2012, in Art. 2, the National Policy for Workers' Health, aims to define the principles, guidelines and strategies to be observed by the three branches of System management Unified Health System (SUS), the development of comprehensive health care for workers, emphasizing the surveillance, promotion and protection of workers' health and the reduction of morbidity and mortality resulting from development models and production processes (Brasil, MS, 2012).

In relation to the current global epidemiological situation, health professionals are at the forefront, which makes them the group of workers most at risk of acquiring work-related infectious and parasitic diseases (DIP-RT), including COVID-19. And taking note of the official records is of cause for concern, considering that, in Brazil, not all parasitic infectious diseases are compulsory to report and are part of the Notifiable Diseases Information System (SINAN) (Santana, et al, 2020).

The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-Cov2) pandemic, better known as the new coronavirus 2019 (COVID-19), comes as a challenge to the global health system, due to the large number of infected and the consumption of resources indispensable for their coping, as they present significant numbers of infected people demanding hospitalization and intensive hospital care (Ribeiro, et al., 2020).

Within health institutions, as a confrontation measure, a multiprofessional team is needed, covering both health workers and support services, such as, for instance, servants, cupbearers, security and, among others, are workers who work in the front line of care, regardless the type of assistance and health status, in times of pandemic or outside it (Ribeiro, et al, Moreover, every work activity and every worker has its importance, and needs to be prepared, not only for their protection, but also to understand that their activity may play an important role in fighting the epidemic (Miranda, FM., et al., 2020).

Faced with this scenario, negative feelings arise such as: fear, anguish, worry, anger, feeling of helplessness, among others. These feelings generated both by the uncertainty of what is to come, as well as by the social isolation required of family members who are exposed to the risk of contagion, experience the conflict of preserving themselves away from daily obligations, although often family, financial and social circumstances do not grant this option (Ribeiro, et al., 2020).

Healthcare workers form several groups from different professional areas and are directly coming into contact with patients infected by COVID-19, and for this reason

they are in the group at risk of being infected. Throughout the course of the pandemic, failures in the health sector to ensure the safety of these professionals, who are involved in the care of patients infected by the virus, have been exposed. In this sense, exposure to the virus can be understood as biological exposure and most, if not all, multiprofessional staff have a huge risk of developing the disease because they are exposed to the virus, due to performing procedures in or near the area routes (Miranda, FM., et al., 2020).

Thus, contamination is related to the failure or lack of protection parameters against the disease in the lack of Personal Protective Equipment (PPE), agglomeration from asymptomatic individuals who remained in contact with the health team, among others. In order to develop more knowledge about the disease and understand its action in the transmission of the virus in health workers, several organizations such as the World Health Organization (WHO) and other institutions have contributed to the studies in a scientific manner, defining protocols, and interventions on the current situation of this pandemic (Miranda, FM., et al., 2020).

Primary health care (PHC) is the basis for the development of the health system with its high level of resolution. However, due to the health emergency experienced by COVID-19 around the world, Brazil is in a scenario of crisis in PHC, because there was a need for changes and search for new strategies. However, the population's health demands continue to exist and increase, which in the future may cause a worsening in health conditions. And, it was necessary to intensify biosecurity care in order to continue maintaining the necessary actions with personal and collective protection (Theodosio, SS., Leandro, SS, 2020).

PHC team members seeking to prevent several diseases, including SARS-CoV-2 infection, have developed strategies such as: drive-thru vaccination; spaces outside UBS structures, and homes; organization of environments, separating symptomatic from asymptomatic; participation in the COVID-19 contingency committee; guidance on the proper use of PPE (Theodosio, SS., Leandro, SS, 2020).

Thus, the current scenario has led the Ministry of Health (MS) and the Councils to use technology to their advantage, providing remote care for people with mild and moderate symptoms of the disease, even in cases indicating severity. It is necessary for the PHC to be able to maintain its processes of readjustment for its care in a comprehensive way aiming at prevention, promotion, protection, diagnosis and treatment, as we have no way of

knowing when the pandemic will end (Teodósio, SS., Leandro, SS, 2020).

Given the above, considering that health professionals are in direct contact with infected patients due to the intense routine in the face of the current pandemic, the study arises with the following guiding question: What are the different situations that health professionals are experiencing during the pandemic?

Thus, the study aimed to verify in the literature, the situations of health workers in coping with the covid-19 pandemic.

II. METHOD

It is a bibliographic, descriptive, integrative literature review type analysis, which allowed to analyze data from a delimited theme based on other articles. There were six stages for the elaboration of the study: identification of the guiding question for review; search in the literature; inclusion criteria with complete articles of the last two years; evaluation of the data; analysis and interpretation and discussion of the results and review report. Based on this, the following guiding question was used to elaborate this integrative review: What are the different situations

health professionals are experiencing during the pandemic?

The selection of articles for the study was obtained from the Scientific Electronic Library Online (SciELO) virtual library. For the search, the descriptors in Health Sciences (DeCS) were used, such as “Worker health”, “Pandemia” and “Covid-19”, the Boolean operators “AND” and “OR” were used to perform the associations of all descriptors with each other.

The search was carried out from the 5th to the 23rd of November 2020. The following inclusion criteria were taken into account for the choice of material: full articles in Portuguese and English, in the last two years, published in the period from 2019 to 2020.

A total of 41 initial articles were found, after the inclusion criteria, this number reduced to 19 articles, all from Scielo. Given this fact, 27 articles were excluded by title and abstract because they did not fit the guiding question and 04 by duplication, while 10 studies were selected by the abstract for full reading and textual production. **Table 1** shows the table for the article selection process.

Table 1 - Results of articles of agreement in the investigated databases, from 2019 to 2020. Belém (PA), Brazil, 2020.

Data base	Found	Duplicates	Excluded	Selected	Included
Scielo	41	04	27	19	10

From the cited criteria, it was possible to collect all data regarding the articles regarding authorship, year of publication, title, virtual library, objective, method, main conclusions and levels of evidence. To collect the data and elaborate the textual corpus, an instrument such as Bardin was used. According to Mendes and Miskulin (2016), the method presented by Bardin for Content Analysis is quite rich in details and didactic. Bardin's method is divided into 3 stages, which are: Pre-analysis: In this phase, it is possible to evaluate what makes sense to analyze and what still needs to be collected. Thus, a fluctuating reading of the material is made to see which subjects are addressed, choose the documents to be analyzed, constitute the corpus based on completeness, representativeness, homogeneity and pertinence, formulate hypotheses and objectives. After that, the second stage of the process is carried out. Exploration of the material: In this step, the material is coded and categorized. In coding, the registration and context units must be cut. The registration units can be the word, the

theme, the object or referent, the character, the event or the document, it is also to make the enumeration according to the previously established criteria. And the last step is the treatment of the results obtained and interpretation, the interpretation of the collected results can be done through inference, which is a type of controlled interpretation. At this stage, it is necessary to obtain the sender or producer of the message, the individual receiving the message, the message itself and the medium, the channel through which the message was sent. From that, four categories were explored and analyzed by the Bardin instrument, so it was possible to describe their results and discussions.

With that, after the described phase, the publications were analyzed through a thorough reading of the included articles, in order to obtain information regarding the different situations that health professionals are experiencing during the pandemic, according to its contents and the reflection in light of the literature recommendations. Therefore, after grouping by similarity

of content, four categories emerged: Category 1 - Mental Health of Health Professionals in the face of the new coronavirus pandemic; Category 2 - Health conditions of professionals when facing Covid-19; Category 3 - Impact of the pandemic on the working conditions of health professionals; Category 4 - Challenges of protecting workers' health in the context of the pandemic context.

III. RESULTS AND DISCUSSION

The **table 2** represents the characteristics of these studies, in which Portuguese (100%) predominates, with 7 quantitative methods (70.0%) and 3 qualitative methods (30.0%), published in 2020 (100%), in national journals (100%) and indexed in the Scielo database (100%). In this comprehensive review of the literature, ten original scientific articles were analyzed, strictly according to the sample selection previously determined.

Table 2 - Description of the studies included in the integrative review, according to periodicals, titles, author (s), year of publication and summary, Ursi.2008

Nº	Autor. Título. Periódico. Ano	Base	Objetivo	Metodologia	Conclusões	Nível Evidência
A1	Cavalcante, J. R., Santos, A. C., Bremm, J. M., Lobo, A. P., Macário, E. M., Oliveira, W. K., & França, G. V. COVID-19 in Brazil: evolution of the epidemic up until epidemiological week 20 of 2020. Epidemiologia e Serviços de Saúde.2020	SCIELO	To describe the evolution of COVID-19 in Brazil up until epidemiological week 20 of 2020.	This is an ecological study based on data and official documents from the Brazilian Ministry of Health and international organizations; comparisons were made between Brazil and other countries and incidence and mortality rates were calculated.	Brazil is one of the countries with the highest number of confirmed cases and deaths, with marked regional differences.	Level 5
A2	Silva, L. S., Machado, E. L., Oliveira, H. N., & Ribeiro, A. P. Working conditions and lack of information on the impact of COVID-19 among health workers. Revista Brasileira de Saúde Ocupacional. 2020	SCIELO	To discuss the health and safety conditions of the health workers who care for COVID-19 patients, from the perspective of the information gathered by their professional class representatives and from institutional recommendations.	Quantitative study	We end by discussing how the exposure to these working conditions may lead the health workers to experience other clinical events that require compliance measures concerning the amount of professionals, improvement in organization and in working conditions,	Level 5

					provision of adequate personal protective equipment, and implementation of measures to strengthen health teams to face COVID-19.	
A3	Helioterio, M. C., Lopes, F. Q., Sousa, C. C., Souza, F. O., Pinho, P. S., Sousa, F. N., & Araújo, T. M. COVID-19: why the protection of health workers is a priority in the fight against the pandemic? Trabalho, Educação e Saúde. 2020	SCIELO	This article aims to summarize and systematize aspects related to the health and working conditions of health workers in this pandemic, especially in Brazil, successful experiences in the protection of healthcare work in other countries and recommendations for the Brazilian context.	Quantitative study	The performance of these workers is a central element in facing the pandemic, therefore, the plan to combat COVID-19 must include protection and preservation of their physical and mental health.	Level 5
A4	Faro, A., Bahiano, M. A., Nakano, T. C., Reis, C., Silva, B. F., & Vitti, L. S. COVID-19 and mental health: the emergence of care. Estudos de Psicologia (Campinas). 2020	SCIELO	This article aims to gather information and research findings on the impact of such crises on mental health.	Technical and scientific literature review, quantitative.	To conclude, it presents questions related to the emergence of mental health care provided by Psychology and other health professionals in order to reduce negative impacts of this crisis and act in a preventive function.	Level 5
A5	Schmidt, B., Crepaldi, M. A., Bolze, S. D., Silva, L. N., & Demenech, L. M. Mental health and psychological interventions during the new coronavirus pandemic (COVID-19). Estudos de Psicologia (Campinas). 2020.	SCIELO	The aim of the current study was to systematize knowledge on the impacts of the new coronavirus pandemic on mental health, as well as on psychological interventions related to the disease.	Technical and scientific literature review, quantitative.	Finally, we discuss both the potential and the challenges of practicing psychology in Brazil during the pandemic.	Nível 5
A6	Esperidião, E., Saidel, M. G., & Rodrigues, J. Mental Health: Focusing On Health Professionals. Revista Brasileira de	SCIELO	Professionals have been susceptible to psychological distress as they struggle to carry out professional tasks, allied to	Technical and scientific literature review, quantitative.	In this sense, as a strategy of mental health care for workers, it is suggested to map the epidemiological profile of professionals	Level 4

	Enfermagem. 2020		emotional instability in the face of fear, pain, and sadness of patients		in psychological distress and with diagnoses of mental disorders.	
A7	Teixeira, C. F., Soares, C. M., Souza, E. A., Lisboa, E. S., Pinto, I. C., Andrade, L. R., & Espiridião, M. A. The health of healthcare professionals coping with the Covid-19 pandemic. <i>Ciência & Saúde Coletiva</i> . 2020	SCIELO	This work aims to systematize a set of scientific evidence presented in international papers that identify the main problems affecting health professionals directly involved in coping with the COVID-19 pandemic and point out actions and strategies for the protection and healthcare of these professionals.	Quantitative study, systematic review.	Emphasizing the necessary measures for the protection and promotion of the physical and mental health of health professionals and workers.	Level 5
A8	Almeida, I. M. Health protection for healthcare workers in COVID-19 times and responses to the pandemic. <i>Revista Brasileira de Saúde Ocupacional</i> . 2020	SCIELO	To discuss challenges for developing and implementing response and strategic readiness plans against COVID-19.	Qualitative Bibliographic Study.	The programs challenges is how to recognize and respond quickly to the changes that lead to new risks.	Level 6
A9	Filho, J. M., & Algranti, E. Challenges and paradoxes of the return to work amidst the COVID-19 pandemic. <i>Revista Brasileira de Saúde Ocupacional</i> . 2020	SCIELO	The issue of planning and returning to work is a global concern.	Qualitative Bibliographic Study.	The recent chaos observed in some Brazilian cities shows that, in the context of economic reopening, without observing the necessary premises, the problem will overcome work spaces, putting at risk not only the working population, but the population as a whole.	Level 6

A10	Santana, A. C., Santos, L. E., & Santos, L. S. COVID-19, continuous stress and burnout syndrome: how is the health of nursing professionals? <i>Ciência Biológicas e de Saúde</i> UNIT.2020	Periodic	The study aims to carry out an integrative review on the relationship between continuous stress and Burnout Syndrome associated with the current pandemic, and how they can negatively influence the health of nursing professionals.	Study of an integrative review with analysis and synthesis of research, qualitative.	From the theme addressed, it is clear that nursing professionals are exposed daily to physical, chemical, biological, psychosocial and ergonomic risks in the work environment and these can directly compromise their health and the service provided to their clients.	Level 5
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The analysis of the literature found that it is possible to formulate four categories from relevant points of view. Thus, the following categories were developed: **Category 1** - Mental Health of Health Professionals in the face of the new coronavirus pandemic; **Category 2** - Health conditions of professionals when facing Covid-19; **Category 3** - Impact of the pandemic on the working conditions of health professionals; **Category 4** - Challenges of protecting workers' health in the context of the pandemic context.

Category 1 - Mental Health of Health Professionals in the face of the new coronavirus pandemic.

It is noted that health professionals face stressful situations in relation to the pandemic. Since these are directly acting on the front line of care, consequently, they are more exposed to the risk that contamination by covid-19 can cause. The aggravating factor of this situation is also the scarcity of personal protective equipment. However, there are many challenges faced by these professionals who end up developing high symptoms of anxiety and depression (A05).

Santos, AF., Cardoso, CL, (2010), point out that the source of the stress found is associated with "work conditions", referring to "work overload" and "work management". The factor most associated with worker stress was work overload, where the demand for care by users increases and the lack of workers is notable.

Focusing on health professionals, psychological emergency care was proposed in situations vulnerable to psychic illnesses in order to balance the emotions and mishaps arising from the pandemic and encourage these workers to seek psychological help when necessary (A04).

For Costa, MT, Borges, LO, Barros, SC, (2015), workers with mental illnesses present depressive symptoms and negative affectivity, both active and apathetic with regard to work and do not show feelings of positivity. This means that the individual suffers silently without expressing his feelings at work.

The susceptibility of these workers to psychological suffering when facing work activities with countless difficulties and emotional destabilization, in the face of adverse situations, feelings of fear and pain and sadness of the people being assisted. However, there is a remarkable awakening to mental health actions aimed at professionals on the front of care. (A06).

According to Gonçalves, et al., (2013), studies show that in health care, both physical and psychic, the welcome and bond are the foundations that guide the assistance, especially when it is developed in the psychic field, offering the sick individual humanized and differentiated health care.

Category 2 - Health conditions of professionals facing Covid-19.

It became evident that it is necessary to discuss and adapt a better way of working, seeking protection and health promotion of health professionals, whether physical or mental protection. Taking into account the conditions of these Brazilian health workers, taking measures that can be included as service protocols. (A07).

Yan, et al., (2020), talks about the effects caused by the continuous use of Personal Protective Equipment (PPE), equipment of paramount importance to minimize the risks of contamination by COVID-19 of health professionals. Skin lesions that are linked to protective measures, of those who treat patients with COVID-19, considering that

these professionals may not be able to continue using their PPE in combating the new coronavirus due to skin lesions. The prevalence of these injuries related to the use of protective equipment was 97.0% (526/542) among frontline health professionals and included skin lesions that affected the nose, hands, face and forehead. The constant washing and hygiene of the hands, can also be related to a dermatitis of greater prevalence in the hands. The appearance of lesions on the skin and mucosa is the result of the incorrect use of PPE, which can even lead to secondary infections in the dermis. Chinese experts advise the correct use, following the standards of use, sterilization and cleaning, in order to reduce the effects caused by the constant use of PPE against infection by Sars-CoV-2.

In this context, health professionals who work on the front line of the new coronavirus pandemic are more susceptible to developing work-related health problems, such as: anxiety, distress, insomnia and depression. These symptoms may be related to emotional stress affecting the professional's well-being, which consequently leads to factors that influence the quality of care provided by these professionals. Fear, loneliness, high exposure to the virus, the high rate of contagion of the virus, the low level of knowledge about the disease, in addition to the lack of PPE and adequate training, are some of the determinants that influence the quality of life of health professionals who are at the head of the Covid-19 pandemic (A10).

According to Martins, FS., Silva, KM., Nunes (2015), altered emotional conditions can be seen more frequently among managers, as they have the power to make decisions, which implies the collection and responsibility of the shift they occupy, because they perform several functions at the same time and with deadlines, in addition to the interpersonal relationship of different personalities. Many professionals have social aspects and mental health influenced by work relationships.

Category 3 - Impact of the pandemic on the working conditions of health professionals.

Brazilian nurses are still the most affected by COVID-19, in which deaths are greater in relation to other countries. Thus, being affirmed by the Federal Nursing Council (Cofen) and the International Nursing Council, in a list of 157 deaths, being (nurses, technicians and assistants), a greater quantity than in other countries, for example the United States, with 146, United Kingdom 77 (A02).

Second, Souza, DO., (2020), the economy a priori was one of the biggest decisive barriers to the spread of the virus, nationally or internationally. Soon the decision belatedly resulted in the strengthening of sales, but it

affected workers facing COVID-19, having a greater excessive workload, physical and emotional exhaustion, and even the devaluation of life, thus making social withdrawal difficult in the face of relaxation. In some countries it is not confirmed whether there was a contribution in this way, but without quarantine, control would be impossible, even with governments overturning such measures, with the view that chaos would ensue, even in the midst of so many deaths of health professionals.

The use of PPE as protection at work implies important aspects, and the increase in beds improves the quality of care, related to high demand. However, the applicability of measures and strategies is necessary when aiming at the safety and protection of workers at levels as a whole, it gives more basic attention to high complexity. In view of the health protection of health workers who are closely linked to coping with COVID-19 (A03).

According to Theodósio, SS., Leandro, SS, (2020), in view of the fields of action, has suffered with the lack of protection (IPEs), being challenged to review and seek the best process of work and assistance, placing restrictions, making use of alcohol gel in places propitious to facilitate the blocking of contamination of people there present, to thus give continuity to the services offered to the population, prioritizing needs, reinventing themselves, intervening in the promotion and prevention of daily health, acting in a safe way and taking care already pre-defined by the world health organization.

Category 4 - Challenges of worker health protection in the context of the pandemic.

During the first month of COVID-19 in the country, there were already 1,313 health professionals with flu-like symptoms in Pernambuco, and 58.9% were diagnosed with the disease through tests carried out, across the country about 5,174 suspected cases were registered, according to COFEN and 2.9%, corresponding to 24 people, died of the disease. According to the data and complaints made, they showed that there was an absence of PPE for the professionals who worked on the front line of COVID-19, and without the proper protection against biological risks, the number of cases has increased. In this sense, not only physical symptoms have affected health professionals as well, they present high psychological distress due to the experience of these workers who work on the front line, where they reported depression, anxiety, insomnia and stress, and their social withdrawal even from their families for fear of contagion, has affected this class of workers. It is essential to monitor the working conditions and health of frontline workers to combat COVID-19, so that there is in fact compliance with

regulatory standards, such as NR32, which refers to worker biosafety (A01).

PPE plays the role of protecting the health of health workers, and on the world stage it has been somewhat unique, decreasing the risk of biological contamination, as they act as a barrier, preventing the spread of the virus. However, it was noticed that many health professionals were being infected due to a shortage of PPE, and due to failures in the correct placement and removal of this equipment and within 4 to 6 days, they were asymptomatic and could transmit the virus. This requires new training and capacity building on the part of management, because with the correct use of this equipment, health professionals can reduce the spread of the virus in the workplace (A08).

According to Loro, MM., Et al., (2016), although there is knowledge of the devices, it is clear that failures in the use of PPE are recurrent, and should be used as a way of preventing occupational exposure; professionals refer to receiving their equipment, but do not use it because they do not know how to identify which procedures each PPE should be used in, and today in the current pandemic scenario it reflects the high number of contamination by health professionals. It is necessary to encourage the use of this equipment for the safety of the professional against potential pathogen agents, in order to interfere with the health of the same, so that the professional can continue dealing with the care of those who need it.

The process of progressive resumption requires a larger and more specific organization and care, especially in the workplace, where it was observed that essential activities can favor great transmission, as these activities normally deal directly with the public, with little ventilation or systems closed, thus being a major risk factor for contamination. For the International Labor Organization (ILO), return must be considered, but following national and international policies, aiming at a safe return for workers, offering individual safety equipment and correctly guiding its use and disposal, seeking to reduce risks contamination of the same, because if in the return to work of these employees of companies, hospitals, and the like, there is no attempt to reduce the exposure of the worker, it may reflect again in full hospitals and a new wave of COVID-19 (A09).

According to Barroso, et al., 2020, as the pandemic spreads, we see the importance of using PPE and adopting measures of awareness and training, not only for health professionals, but for workers who work in other services considered essential, because they need to be correctly targeted so that they do not spread the virus, guide the general population that social isolation and the correct use

of PPE are fundamental measures to increase protection and reduce the spread of COVID-19 in the social environment..

IV. CONCLUSION

It was noticed that in the midst of the current pandemic, health professionals are exposed to situations of work overload, stress and risks of contamination by the covid-19 virus. Thus, concerns arise that may generate other harm to these professionals, since when it is in complete well being provides better assistance to the user. Measures that aim at the integral health of this worker need to be adopted to face the pandemic, since there is still no vaccine to prevent contamination and they need to be psychologically and physically prepared.

Therefore, considering that the meanings of work in a worker's life are collectively structured with interpersonal relationships established, including the existence of risks in the work of these professionals taking into account material and physical conditions, the organization of processes and the relationships between social actors. The results indicated corroborate the need for a public policy aimed at defining interventions and strategies in order to promote mental health in primary care. It is worth mentioning that a study focused on the issue of stress in the work environment, where individual characteristics and coping with adversities are relevant with regard to the appearance of stress.

In this sense, it became evident that nursing workers are extremely important health professionals, doing extreme and stressful jobs, being able to obtain occupational diseases, which cause them anguish, loneliness and constant stress. Pandemic aggravates the situation of these health professionals, as they are exposed to the greatest risks, increase the fear of being contaminated and contaminating their families, in addition to having the burden of facing the pain of patients and their companions, affecting their mental health. Through social media, it must reinforce the importance of what is being done by these health professionals to minimize the spread of the virus. Not forgetting to also value the Unified Health System (SUS), so that this system works. Without forgetting the important recommendations of WHO that everyone can help health professionals, ensuring the safety of their families and society. Studies in the area are important to increase research related to the topic, which improve the quality of life of health professionals, who develop a role in patient care.

As a result of so many errors seen in the course of the pandemic, the number of cases and deaths is alarming and

sad. Therefore, it is worth thinking that not only the population's health is what matters, since in reports that there are still many negligent people, this behavior directly harms the function of those who work in the midst of chaos, due to and due to the lack of personal protection, beds, labor rights affected, stressful working hours, among many others. Finally, it is necessary to promote better working conditions so that the work can be carried out properly and achieve its goals and purposes of care, and not forget the importance of health workers who are on the front line of COVID-19.

After the arrival of COVID-19 in Brazil, there was a growing number of suspicious and confirmed cases mainly among health professionals who were in the front line of fighting the disease, which took a very large proportion, due to several factors and one of them was the scarcity of PPE and lack of adequate training for its use and disposal, since these equipments can exercise a "barrier" function for the virus. Management often does not invest in continuing education for health professionals, even though they are fundamental for the improvement and daily updating of professionals who deal directly with the population, being exposed to various agents, which in some cases can lead to death.

REFERENCES

- [1] Almeida, I. M. (2020). Health protection for healthcare workers in COVID-19 times and responses to the pandemic. *Brazilian Journal of Occupational Health*, 45, 1-10. <https://doi.org/10.1590/scielopreprints.140>
- [2] Barbosa, D. J., Gomes, M. P., Souza, F. B., & Gomes, A. M. (2020). Stress Factors in nursing professionals to fight the COVID-19 pandemic. *Communication in Health Science*, 31(1), 37-47. www.esccs.edu.br/revistaccs/index.php/comunicacaoemcienciasdasaude/article/view/651
- [3] Barroso, B. I., Souza, M. B., Bregalda, M. M., Lancman, S., & Costa, V. B. (2020). Worker health in COVID-19 times: reflections on health, safety, and occupational therapy. *Brazilian Notes of Occupational Therapy*, 28(3), 1093-1102. <https://doi.org/10.4322/2526-8910.ctoarft2091>
- [4] Cavalcante, J. R., Santos, A. C., Bremm, J. M., Lobo, A. P., Macário, E. M., Oliveira, W. K., & França, G. V. (2020). COVID-19 en Brasil: evolución de la epidemia hasta la semana epidemiológica 20 de 2020. *Epidemiology and Health Services*, 29(4), 1-13. <https://doi.org/10.5123/S1679-49742020000400010>
- [5] Costa, M. T., Borges, L. O., & Barros, S. C. (2015). Working conditions and mental health: a study in two university hospitals. *Revista Psicologia Organizações e Trabalho*, 15(01), 43-58. <https://doi.org/10.17652/rpot/2015.1.490>
- [6] Esperidião, E., Saidel, M. G., & Rodrigues, J. (2020). Mental health: focus on health professionals. *Brazilian Journal of Nursing*, 73(1), 1-2. <https://doi.org/10.1590/0034-7167.202073supl01>
- [7] Faro, A., Bahiano, M. A., Nakano, T. C., Reis, C., Silva, B. F., & Vitti, L. S. (2020). COVID-19 and mental health: the emergence of care. *Psychology Studies (Campinas)*, 37, 1-14. <https://doi.org/10.1590/1982-0275202037e200074>
- [8] Filho, J. M., & Algranti, E. (2020). Challenges and paradoxes of returning to work in the context of the COVID-19 pandemic. *Brazilian Journal of Occupational Health*, 45, 1-3. <https://doi.org/10.1590/2317-6369ed0000220>
- [9] Gonçalves, R. M., Pedrosa, L. A., Oliveira, M. A., Silva, Q. C., Abreu, R. M., & Pinho, P. H. (2013). Promotion of mental health: Actions of nurses in primary care. *Portuguese Journal of Mental Health Nursing*, 10, 49-56. www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S1647-21602013000200008
- [10] Helioterio, M. C., Lopes, F. Q., Sousa, C. C., Souza, F. O., Pinho, P. S., Sousa, F. N., & Araújo, T. M. (2020). COVID-19: why the protection of health workers is a priority in the fight against the pandemic? *Work, Education and Health*, 18(3), 1-13. <https://doi.org/10.1590/1981-7746-sol00289>
- [11] Loro, M. M., Zeitoune, R. C., Guido, L. A., Silveira, C. R., & Silva, R. M. (2016). Revealing risk situations in the context of nursing work at urgency and emergency services. *Escola Anna Nery*, 20(4), 1-8. <https://doi.org/10.5935/1414-8145.20160086>
- [12] Martins, F. S., Silva, K. M., & Nunes, P. S. (2015). Evaluation of the quality of life of managers of family health units in the municipality of Aracaju / SE. *Interfaces Científicas - Saúde e Ambiente*, 3(2), 37-46. <https://doi.org/10.17564/2316-3798.2015v3n2p37-46>
- [13] Mendes, R. M., & Miskulin, R. G. (2017). Content analysis as a methodology. *Cadernos de Pesquisa*, 47(165), 1-23. <https://doi.org/10.1590/198053143988>
- [14] Miranda, F. M., Santana, L. L., Pizzolato, A. C., & Saquis, L. M. (2020). Working conditions and the impact on the health of nursing professionals in face of COVID-19. *Revista Cogitare Enfermagem*, 25, 1-8. <https://doi.org/10.5380/ce.v25i0.DOI>
- [15] Ribeiro, A. P., Oliveira, G. L., Silva, L. S., & Souza, E. R. (2020). Occupational safety and health of health workers caring for patients during the Covid-19 pandemic: a literature review. *Revista Brasileira de Saúde Ocupacional*, 45, 1-12. <https://doi.org/10.1590/2317-6369000013920>
- [16] Santana, A. C., Santos, L. E., & Santos, L. S. (2020). Assessment of the quality of life of the managers of family health units in the city of Aracaju / SE. *Ciência Biológicas e de Saúde UNIT*, 6(2), 101-02. <https://periodicos.set.edu.br/cadernobiologicas/article/view/9253/4203>
- [17] Santos, A. F., & Cardoso, C. L. (2010). Mental health professionals: stress and occupational stressors stress and occupational stressors of mental health. *Psicologia em Estudo*, 15(2), 245-253. <https://doi.org/10.1590/S1413-73722010000200003>
- [18] Schmidt, B., Crepaldi, M. A., Bolze, S. D., Silva, L. N., & Demenech, L. M. (2020). Mental health and psychological interventions during the new coronavirus pandemic (COVID-

- 19). Estudos de Psicologia (Campinas), 37, 1-13.
<https://doi.org/10.1590/1982-0275202037e200063>
- [19] Silva, L. S., Machado, E. L., Oliveira, H. N., & Ribeiro, A. P. (2020). Working conditions and lack of information on the impact of COVID-19 among health workers. *Revista Brasileira de Saúde Ocupacional*, 45(24), 1-8.
<https://doi.org/10.1590/2317-6369000014520>
- [20] Souza, D. O. (2020). The COVID-19 pandemic beyond Health Sciences: reflections on its social determination. *Ciência & Saúde Coletiva*, 25(1), 2469-2477.
<https://doi.org/10.1590/1413-81232020256.1.11532020>
- [21] Teixeira, C. F., Soares, C. M., Souza, E. A., Lisboa, E. S., Pinto, I. C., Andrade, L. R., & Espiridião, M. A. (2020). The health of healthcare professionals coping with the Covid-19 pandemic. *Ciência & Saúde Coletiva*, 25(9).
<https://doi.org/10.1590/1413-81232020259.19562020>
- [22] Teodósio, S. S., & Leandro, S. S. (2020). Enfermagem na atenção básica no contexto da COVID-19. *ABen/DEAB - e-Book*, 87(3), 1-88. www.abennacional.org.br/site/wp-content/uploads/2020/09/E-BOOK-ATENCAO-BASICA.pdf
- [23] Yan, Y., Chen, H., Chen, L., Cheng, B., Diao, P., Dong, L., Gao, X., Gu, H., He, L., Ji, C., Jin, H., Lai, W., Lei, T., Li, L., Li, L., Li, R., Liu, D., Liu, W., Lu, Q., Shi, Y., Song, J., Tao, J., Wang, B., Wang, G., Wu, Y., Xiang, L., Xie, J., Xu, J., Yao, Z., Zhang, F., Zhang, J., Zhong, S., Li, H., & Li, H. (2020). Consensus of Chinese experts on protection of skin and mucous membrane barrier for health-care workers fighting against coronavirus disease 2019. *Dermatologic Therapy*, 33, 1-7. <https://doi.org/10.1111/dth.13310>