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#### ORIGINALES

# Mental illness among health professionals during the COVID-19 pandemic

Adoecimento mental entre os profissionais de saúde durante a pandemia pela COVID-19

Enfermedad mental entre los profesionales de la salud durante la pandemia de COVID-19

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#### ABSTRACT:

**Introduction:** Mental illness has become the target of current scientific studies to the detriment of the consequences of the recent pandemic of the new coronavirus, especially among health professionals due to its intrinsic relationship in the care of victims of covid-19 and the work overload in this period. **Objective:** To investigate mental illness among health professionals during the covid-19 pandemic.

**Materials and Method:** This is a cross-sectional, descriptive study with a quantitative approach, conducted in a municipality of Paraíba, with 126 health professionals from different services in the city. A sociodemographic questionnaire with 10 questions was used, in addition to two validated instruments, the Maslach Burnout Inventory and the Depression, Anxiety and Stress Scale.

**Results:** The majority is woman (n=105), aged between 26 and 36 years (n=49), with technical level (n=37), community health agents (n=39), worked for more than 10 years (n=62), had a workload of up to 48 hours per week (n=95), did not use psychotropic drugs (n=109) or therapy (n=115) in the last 12 months. It was found that 30.96% had some degree of depression, 39.68% suffered with some degree of anxiety and 38.88% suffered with stress. Moderate Burnout was identified (n=86), and most were in the depersonalization phase.

**Conclusion:** Considering the mental health problems of health professionals, such as anxiety, depression, stress and Burnout syndrome, the findings of this study are important, since they allow the development of measures, psychological health care to health professionals.

Keywords: COVID-19; Mental Health; Burnout Syndrome; Health Professionals.

#### RESUMO:

**Introdução:** O adoecimento mental se tornou alvo de estudos científicos da atualidade em detrimento das consequências da recente pandemia do novo coronavírus, especialmente entre os profissionais de saúde devido sua intrínseca relação na assistência as vítimas da COVID-19 e a sobrecarga de trabalho nesse período.

**Objetivo:** Investigar o adoecimento mental entre os profissionais de saúde durante a pandemia pela COVID-19.

**Materiais e Método:** Trata-se de estudo transversal, descritivo com abordagem quantitativa, realizado em município paraibano, com 126 profissionais da saúde de diferentes serviços no município. Utilizouse um questionário sociodemográfico com 10 questões e dois instrumentos validados, o Maslach Burnout Inventory e o Depression, Anxiety and Stress Scale.

**Resultados:** A maioria são mulheres (n=105), idade entre 26 a 36 anos (n=49), com nível técnico (n=37), agentes comunitários de saúde (n=39), trabalhavam há mais de 10 anos (n=62), com carga horária de até 48 horas semanais (n=95), não faziam uso de medicamentos psicotrópicos (n=109) ou terapia (n=115) nos últimos 12 meses. Verificou-se que 30,96% tinham algum grau de depressão, 39,68% sofriam com algum grau de ansiedade e 38,88% sofriam com estresse. Foi identificado burnout moderado (n=86), e a maioria encontrava-se na fase da despersonalização.

**Conclusão:** Considerando os agravos psíquicos à saúde mental dos profissionais de saúde, a exemplo da ansiedade, depressão, estresse e a síndrome de burnout, os achados deste estudo são importantes, uma vez que permitem a elaboração de medidas, protocolos e assistência à saúde psicológica aos profissionais de saúde.

Palavras-chave: COVID-19; Saúde Mental; Síndrome de Burnout; Profissionais de Saúde.

#### **RESUMEN:**

**Introducción:** La enfermedad mental se ha convertido en objeto de estudios científicos de actualidad en detrimento de las consecuencias de la reciente pandemia del nuevo coronavirus, especialmente entre los profesionales de la salud, debido a su intrínseca relación en la asistencia a las víctimas de covid-19 y la sobrecarga de trabajo en ese período.

**Objetivo:** Investigar la enfermedad mental entre los profesionales de la salud durante la pandemia por covid-19.

**Materiales y Método:** Se trata de un estudio transversal, descriptivo con enfoque cuantitativo, realizado en municipio de Paraíba, con 126 profesionales de la salud de diferentes servicios en el municipio. Se utilizó un cuestionario sociodemográfico con 10 preguntas y dos instrumentos validados, el Maslach Burnout Inventory y el Depression, Anxiety and Stress Scale.

**Resultados:** La mayoría es mujer (n=105), edad entre 26 y 36 años (n=49), con nivel técnico (n=37), agentes comunitarios de salud (n=39), trabajaban desde hace más de 10 años (n=62), con carga horaria de hasta 48 horas semanales (n=95), no hacían uso de medicamentos psicotrópicos (n=109) o terapia (n=115) en los últimos 12 meses. Se encontró que 30,96% tenían algún grado de depresión, 39,68% sufrían con algún grado de ansiedad y 38,88% sufrían de estrés. Se identificó Burnout moderado (n=86), y la mayoría se encontraba en la fase de despersonalización.

**Conclusión:** Considerando los agravios psíquicos a la salud mental de los profesionales de la salud, como la ansiedad, la depresión, el estrés y el síndrome de Burnout, los resultados de este estudio son importantes, ya que permiten la elaboración de medidas, protocolos y asistencia psicológica a los profesionales de la salud.

Palabras clave: COVID-19; Salud Mental; Síndrome de Burnout; Profesionales de la Salud.

#### INTRODUCTION

Mental illness has reached about 700 million people worldwide, among common mental disorders (CMD) we can highlight the high rates of depression and anxiety <sup>(1)</sup>.

According to data provided by the World Health Organization <sup>(2)</sup>, depression affects about 4.4% of the world population and about 264 million people and 3.6% of individuals suffer from anxiety disorders, being more prevalent among women.

The Pan American Health Association <sup>(3)</sup> states that about 300 million people worldwide are affected by depression and, even if there is adequate treatment for this disorder, few people receive it. This statement can be explained by the shortage of professionals specialized in the field of mental health and the stigma that is associated with people diagnosed with some type of mental disorder. The WHO <sup>(2)</sup> ensures that depression affects more adult people predominating in women, reaching children and adolescents at a lower level.

Based on the aforementioned data, mental disorders correspond to public health problems and are increasingly incident in modern society <sup>(4)</sup>. This fact can be explained by the possibility that any person has a risk of developing mental disorders, because, in addition to biological and subjective causes, sociocultural and economic factors are able to negatively interfere with the mental health of the individual. Among the various types of mental disorders, we can mention depression, anxiety and bipolar affective disorder, which present themselves differently and usually involve the thoughts, perceptions, emotions and behaviors of the individual, directly and indirectly affecting human and interpersonal relations <sup>(3)</sup>.

In the national context, between the years 2006 and 2013, there was an increase in the number of disease-aid grants for workers diagnosed with some type of mental illness, which arouses interest for the correlation of work with the process of mental illness of Brazilian workers <sup>(1)</sup>. Similarly, scholars <sup>(5)</sup> discuss the relationship between work and mental health, adding that there are other mental disorders related to labor activity, namely: emotional exhaustion, depersonalization and Burnout syndrome.

There is evidence about the appearance of various forms of psychological suffering and the way work is developed in today's society. The study shows that mental illnesses are responsible for the increase in the number of absences from the workplace. This fact can be explained by the capitalist model followed by society, where production is the final objective of the work and the biopsychosocial needs of the individual are left aside <sup>(6)</sup>.

According to the International Stress Management Association (ISMA), about 4% of the world's population are affected by Burnout syndrome. In the Brazilian context, Burnout syndrome does not enter as a disease on the compulsory notification list, thus the Ministry of Health does not have data that can account for the number of people who are affected by this syndrome. Some studies, however, suggest that Burnout syndrome is very common in health professionals and, according to data provided by ISMA, about 33 million people (30% of more than 100 million Brazilian professionals) are affected by the syndrome, placing Brazil in 2<sup>nd</sup> place in the ranking of countries in which Burnout syndrome is prevalent <sup>(7)</sup>.

For the 1<sup>st</sup> Quarterly Bulletin on Disability Benefits of 2017 by the Ministry of Finance, mental disorders are the third cause of disability for work in Brazil, and the main factors that contribute to mental illness in the workplace are: constant demand for productivity, devaluation of workers and excessive workloads; among the most

affected classes of workers are: drivers of vehicles, bankers, elementary school teachers and security guards <sup>(8)</sup>.

Nursing professionals can also be included in this group, because, according to scholars, the mental illness among these workers is related to working conditions, direct contact with patients, deaths and overload and devaluation of work <sup>(1)</sup>. Due to the characteristic of nursing work, such professionals are more likely to develop stress and other mental disorders related to work activity <sup>(5)</sup>.

Since the beginning of the profession, the role of nursing is to assist and care for the human being, but the working conditions where nurses work, facing pain, suffering and death, reflect negatively on their mental aspect. Due to the characteristic assistance, nursing tends to develop repetitive strain injuries/work-related musculoskeletal disorders (RSI/WRMSD), mental and behavioral changes <sup>(9)</sup>.

This fact became even more evident with the emergence of covid - 19 (Coronavirus Disease - 2019) in December 2019, being considered as a pandemic in the year 2020 by the World Health Organization (WHO). When there is the emergence of infectious diseases such as covid - 19, mental health and more precisely the damage caused to it tend to be ignored. There are several signs and symptoms of mental illness among health professionals in the pandemic period, which include anxiety, depression, stress, insomnia and post-traumatic disorder. Moreover, recent studies address Burnout syndrome as a result of overwork in pandemic times <sup>(10)</sup>.

Burnout syndrome is one of the consequences of work stress due to emotional overload characterized by three dimensions: ineffectiveness, emotional exhaustion and depersonalization, defined respectively as: self-assessment always preceded by the feeling of little efficiency, feeling of demand beyond what can be offered and, finally, a change in the way one sees oneself followed by interpersonal distancing <sup>(11)</sup>.

There is a shortage of articles related to mental health and its correlation with the pandemic because it is a recent subject and event; however, there are some reports of health professionals stating that, faced with covid- 19, the work developed by them promotes challenges that trigger anxiety, depression and stress <sup>(12)</sup>.

Considering the negative effects of the covid-19 pandemic on health workers, this study is justifies by the lack of data related to the problem that contribute to the construction of databases that can assist in the planning of actions that contribute to minimize the negative effects of the pandemic on health professionals.

Given the above, due to the reduced number of studies on this topic and the lack of proposals for mental health care for this population of workers, the following question arises: What is the prevalence of Burnout syndrome and common mental disorders such as depression, anxiety and stress among health professionals in the pandemic period? This study aims to investigate the mental illness among health professionals during the covid-19 pandemic.

## MATERIAL AND METHOD

This is a cross-sectional, descriptive study with a quantitative approach, performed in all health services, in the three care levels, in the municipality of Alagoa Grande, located in the marsh of Paraíba.

The inclusion criteria were to be active health professionals in the city of Alagoa Grande/PB and health professionals who were working in the pandemic period in the city. Professionals who had worked for less than 3 years in the municipality, professionals who were on vacation or leave in the period of data collection and professionals who absent due to sick leave due to clinical or psychiatric conditions in a pandemic period were excluded. The sample was calculated considering the finite population of 206 active health professionals in the target municipality of the study. The confidence level was 95%, with a risk of alpha error of 2.5%, and the maximum margin of error of 5%. The n-sample was calculated in 126 health professionals.

Three research instruments were used, a sociodemographic questionnaire with 10 questions prepared by the researcher, and two validated scales MIB (Maslach Burnout Inventory) and DASS-21 (Depression, Anxiety and Stress Scale).

The MBI has 22 questions and the score varies from 1 (never), 2 (annually), 3 (monthly), 4 (weekly) and 5 (daily). Of the 22 items: 9 assess emotional exhaustion, 5 depersonalization and 8 professional achievement, with a total score of 110 points <sup>(13)</sup>.

The classification of the severity of BS is made by means of the total score, values from 0 to 20 indicate absence of Burnout, between 21 and 40 there is the probability or possible presence of Burnout, scores between 41 and 60 indicate mild Burnout, between 61 and 80 moderate Burnout, and when there are high levels of emotional exhaustion and depersonalization followed by low rates of personal achievement, that is, score between 81 and 100, there is the presence of severe Burnout <sup>(14-16)</sup>. , DASS - 21 is divided in a Tripartite way, with two topics that identify anxiety and depression and a third that identifies stress, has 21 items and uses the Likert model, with scores: 0 (does not apply at all), 1 (applied for some time), 2 (applied for a considerable time) and 3 (applied most of the time) with final score that can reach 63 points <sup>(17.18)</sup>.

The DASS-21 brings five categories to quantify the severity of symptoms, namely: mild, minimal, moderate, severe and very severe. Depression is considered mild when the score is 0 to 9, minimum when it is 10 to 13 and moderate when 14 to 20, severe when 21 to 27 and very severe when the score is greater than 28. As for anxiety, a score from 0 to 7 is considered normal, from 8 to 9 is considered minimum, from 10 to 14 is considered moderate and between 15 and 19 is characterized as severe and greater than 20 very severe. The stress factor is considered normal/mild when the indexes are 0 to 14, minimum when the score is 15 to 18, moderate when the indexes are 19 to 25, severe when it is between 26 to 33 and very severe when higher than 34. For the final evaluation, the values of each subscale must be summed and multiplied by two in order to resemble the original DASS-42 scale <sup>(15)</sup>.

The data collection procedure followed the random sampling technique. A list was created with the names of all health professionals, listed and subsequently drawn.

Thus, all participants had the same chance of being selected and there was no repetition of individuals selected to participate in the research. The participants were informed and signed the Informed Consent Form (ICF), and warned that the withdrawal could happen at any stage of the research. The data collection period was between August and November 2021.

The analysis was performed with the aid of the Microsoft Office Excel 2010 Program, version 2010, for Windows 8, where a database was built. Subsequently, the data were transferred to the statistical package SHPS (Statistical Package for the Social Sciences), version 20.0, and later presented through tables and discussed based on the relevant literature.

All ethical precepts proposed in resolution 466/12 of the National Health Council (NHC) were followed and the work was submitted to the evaluation of the Research Ethics Committee (REC) of the Nova Esperança Nursing College (FACENE) through the Brazil platform. The research was approved by the Research Ethics Committee (REC) of the Nova Esperança Nursing and Medical Colleges, obtaining a favorable opinion CAAE number 51277921.0.0000.5179, with opinion number 4.987.204, under the REC protocol: N. 113/2021.

### RESULTS

Data were divided into stages, represented in sociodemographic data, analysis of depression, anxiety and stress indexes and Burnout syndrome. All data come from the instruments used in this research, the sociodemographic questionnaire, the DASS – 21 and the MBI.

#### Sociodemographic characterization of research participants

Table 1 presents the data regarding the sociodemographic profile of health professionals in the city of Alagoa Grande, PB. The results presented show that most participants are female (83.3%), have partners (69.8%), are in the age group between 26 and 36 years (39.7%) and have income from 1 to 2 minimum wages (79.4%).

CHARACTERISTICS	n	%	
Sex			
Female	105	83.3%	
Male	21	16.7%	
Marital Status			
With Partner	88	69.8%	
Without Partner	38	30.2%	
Age			
18 - 25	7	5.5%	
26 - 36	50	39.7%	
37 - 49	47	37.3%	
Older than 50	22	17.5%	
Income *			
1 - 2 wages	100	79.4%	

**Table 1:** Data referring to the sociodemographic characterization of health professionals, Alagoa Grande/PB, 2021. (n= 126).

3 - 5 wages	16	12.6%	
6 - 10 wages	6	4.8%	
More than 10 wages	4	3.2%	
TOTAL	126	100%	

Source: Direct Research. \* Minimum wage in force in 2021: 1,100 BRL.

Table 2 was generated to present the results regarding the professional characterization of the study participants. According to the data, most workers have technical level (29.4%), are community health agents (29.4%), worked for more than 10 years (49.2%) and develop activities that accumulate up to 48 hours per week (73.0%).

**Table 2:** Professional characterization of research participants, Alagoa Grande/PB,

2021. (n=126).				
VARIABLE	n	%		
TRAINING DEGREE				
High school	23	18.3%		
Technical School	37	29.4%		
Higher Education	29	23.0%		
Post-Graduation	34	27.0%		
Residency and/or MSc and/or PhD	3	2.3%		
PROFESSION				
Community Health Agent	37	29.4%		
Nurse	32	25.4%		
Doctor	6	4.8%		
Nursing Technician	32	25.4%		
Others*	19	15.0%		
YEARS OF WORK				
1 - 2 years	17	13.5%		
3 - 5 years	27	21.4%		
6 - 10 years	20	15.9%		
More than 10 years	62	49.2%		
WEEKLY WORKLOAD				
Up to 20h	7	5.6%		
From 20h to 30 h	27	21.4%		
Up to 48h	92	73.0%		
TOTAL	126	100%		

**Source:** Direct Research. \* Other health professionals: physiotherapists (5), oral health technicians (5), social worker (4), dentist (4) and speech therapist (1).

Table 3 presents data regarding the variables that indicate the state of mental illness of the investigated. When asked about the use of psychotropic drugs in the last 12 months, most of them did not use (87.3%) and did not undergo any type of treatment or therapy considering the same time frame (90.5%).

	Grand/PB, 2021. (n=126).	, ,
RESOURCES	n	%
DRUG THERAPY		
Yes	16	12.7%
No	110	87.3%
PSYCHOTHERAPY		
Yes	12	9.5%
No	114	90.5%
TOTAL	126	100%

**Table 3:** Therapeutic resources used by health professionals in the city of Alagoa Grand/PB, 2021, (n=126).

Source: Direct Research.

## Analysis of the presence of Burnout Syndrome among health professionals in the city of Alagoa Grande, PB.

Table 4 was generated to present the rates of depersonalization, the most worrying dimension that demarcates Burnout syndrome. Most professionals have high levels of depersonalization (85.7%) and only 14.3% have moderate levels. No professional had low rates, not being necessary to account for the data in the table below.

**Table 4:** Analysis of the degree of depersonalization among health professionals in<br/>the city of Alagoa Grande/PB, 2021. (n=126)

	%
108	85.7%
18	14.3%
126	100%
	18

Source: Direct Research.

Table 5 shows the frequency of Burnout syndrome among health professionals. It was found that 68.3% of professionals had moderate Burnout, 30.2% had mild Burnout and that only 1.6% were classified with severe Burnout levels.

**Table 5:** Occurrence of Burnout syndrome among health professionals in the city of Alagoa Grande/PB 2021 (n=126)

Alagoa Glalide/FD, 2021. (II-120)					
CLASSIFICATION	n	%			
Mild Burnout	38	30.2%			
Moderate Burnout	86	68.2%			
Severe Burnout	2	1.6%			
TOTAL	126	100%			

Source: Direct Research.

#### Analysis of anxiety, stress and depression rates among health professionals

Table 6 shows the rates related to anxiety, stress and depression among health professionals working in the study site. It appears that most professionals did not have any of the mental disorders mentioned above, however, among the 126 participants, 31.0% are with some degree of depression, 39.7% with some degree of anxiety and 38.8% with stress.

Grande/PB, 2021. (n=126).						
DASS - 21 Factor	Depressior	۱	Anxiety		Stress	
	n	%	n	%	n	%
Absent	87	69.0%	76	60.3%	77	61.1%
Present	39	31.0%	50	39.7%	49	38.8%
Total	126	100%	126	100%	126	100%

**Table 6:** Prevalence of depression, anxiety and stress among health workers, Alagoa Grande/PB. 2021. (n=126).

**Source:** Direct Research.

Among the severity levels of common mental disorders evaluated, most professionals had depression, anxiety and normal stress, represented numerically as 69.0%, 60.3% and 61.1%, respectively. However, there is some degree of severity, observing mild depression (14.3%), very severe anxiety (13.5%) and mild stress (13.5%) as shown in Table 7.

**Table 7:** Classification of levels of depression, anxiety and stress among health workers, Alagoa Grande/PB, 2021. (n=126).

DASS-21 Factor	Classification	n	%
Depression	Normal	87	69.0%
	Mild	18	14.3%
	Moderate	13	10.3%
	Severe	3	2.4%
	Very Severe	5	4.0%
Anxiety	Normal	76	60.3%
-	Mild	16	12.7%
	Moderate	13	10.3%
	Severe	4	3.2%
	Very Severe	17	13.5%
Stress	Normal	77	61.1%
	Mild	17	13.5%
	Moderate	15	11.9%
	Severe	9	7.1%
	Very Severe	8	6.3%
Total		126	100%

**Source:** Direct Research.

## DISCUSSION

Drawing the sociodemographic profile of a specific population is important because it assists in the decision-making process and effective planning for any problems encountered. Analyzing the variables, sex, age, profession, education and mental illness index in the pandemic period, target of this study, is of paramount importance, since the crossing of these data will help elaborate policies aimed at meeting the demands found.

Given the results presented by this research, some trends can be outlined in relation to health professionals. The first fact refers to the number of female professionals involved in this study, which can be explained by the process of feminilization and feminization, quantiqualitative denomination given to the exponential increase in the female sex and to the social value, assigned to some health professions. Moreover, it is observed that the model of assistance and care for the other is performed by women from the most remote periods and that is perpetuated until today. Another important aspect that corroborates the increase in the female population in the health sectors is the decrease in fertility rates and the increase in education levels, factors that contribute to the insertion of women in the labor market <sup>(19)</sup>.

Regarding the age of the participants, most interviewees belong to the age group between 26 and 36 years, a relatively young population. The rejuvenation of health professionals can be explained by the growing search for a promising professional life, insertion in the labor market and independence. In addition to this condition, the data collection period occurred at the time of the pandemic, where older individuals were removed from their attributions because they were classified as a risk group, with the predominant exercise of the function by younger professionals <sup>(17)</sup>.

Income, level of education and area of professional training are variables that are related, because most HP are community health agents and nursing technicians, and considering that the requirement is only to have elementary and technical education respectively, this variable correlates with the high levels of technical training found in this research. In turn, these variables also correlate with the income factor, predominantly one to two minimum wages, which is attributed to professionals with lower professional training.

Corroborating the idea above, other variables that correlate are profession and weekly workload, most of the health professionals interviewed in this study are CHA, with recommended working hours of up to 40 hours per week by Ordinance n. 648/GM of March 28, 2006, as observed in this study. Analyzing the aforementioned data and bringing to the problem of this work, one study showed that there is an association between low education, lower income and high weekly workload with the development of common mental disorders <sup>(20)</sup>.

The use of psychotropic drugs becomes a source to minimize any stressors in everyday life or in the workplace. These substances can reduce feelings of tension and anxiety so that reality is not seen in the real way, but in a distorted way. In the current scenario, health professionals are more susceptible to the use and dependence of psychoactive substances, because they are in contact with the suffering of patients and have direct access to medicines <sup>(21)</sup>.

However, regarding the use of psychotropic drugs, the prevalence found in this study was 12.7%, rate considered low compared to other studies already published where the rate of use of psychotropic drugs by health professionals ranged from 21,7% to 37.4% <sup>(22)</sup>. Although the rate of this study is below the data found in other studies, this index is warning, because when it relates to Burnout syndrome, especially the depersonalization dimension, and also low wages, high workload, stress and other emotional conflicts, this index stands out in relation to another published study whose prevalence was 9.76% <sup>(23)</sup>.

Similarly, the rates for seeking psychological treatment and other types of treatment are also low, only 9.5%, data that differ from figures released by the Ministry of Health,

in which the search for psychological support increased in the pandemic period (29.3%) in the general population <sup>(24)</sup>.

Low rates of seeking psychological support, among other types of specialized treatment, are associated with prejudice related to mental illness. Moreover, these low rates may be associated with high weekly workload, so that professionals do not have time to take care of themselves, in addition to the influence of religiosity that is very prevalent in the local region of study, becoming the source of support in difficult times. According to a study published in 2021, in times of great difficulty such as the covid – 19 pandemic, most people have the ability to cope with challenges, psychological resilience is a mechanism to overcome situations that offer risks. Thus, it ensures healthy development through coping strategies and skills, both facts justify the low demand for any type of treatments whether pharmacological or not by the investigated population <sup>(25)</sup>.

Faced with a pandemic, government and disease control organizations focus on stopping the advance of the etiological agent, however there is a shortage of ideas and protocols aimed at containing the impacts on mental health. When it comes to the consequences in the mental aspects of health professionals, there are complications in their psychological and mental functions, combined with the increase in the workload, causing the development of Burnout syndrome. The national indexes show that BS reaches 30% of Brazilian workers <sup>(24)</sup>, however, the prevalence found in this study reached higher rates than those found in the literature.

The high Burnout rates found in this study may be related to the age group prevalent in the research, between 26 and 36 years, a relatively young population that needs to adapt to new work demands provided by the increase in the number of patients victims of covid - 19, an idea that corroborates another study already published on the subject<sup>(26)</sup>.

Corroborating the present study, a study showed a frequency of Burnout syndrome of 34.3% in its sample. Concerning the dimensions characteristic of the disease, the study indicates that emotional exhaustion reached 50.2%, personal achievement reached 94.5% and depersonalization reached 67.3% of the sample <sup>(15)</sup>. These data are similar to the numbers obtained in this research.

BS is marked by three dimensions: personal achievement, professional exhaustion and depersonalization. To arrive at the conclusion that the individual has some degree of Burnout, the rates of personal achievement need to be low and those of professional exhaustion and depersonalization need to be high <sup>(17)</sup>. In this study, most professionals had high levels of personal achievement (61.1%), low levels of emotional exhaustion (44.4%), but high levels of depersonalization (85.7%), the most worrying factor that marks the manifestation of the syndrome.

Depersonalization is defined as an emotional state where the individual treats others as objects, assuming negative and indifferent attitudes to the events with other people of their living. This characteristic was remarkable among health professionals interviewed in the present study, with 85.7% of participants having high rates of depersonalization. The high prevalence of Burnout syndrome can generate changes in the physiological and mental functions in the worker's health, factors that can negatively affect the assistance to the patients <sup>(27)</sup>.

The occurrence of Burnout syndrome found in this study can still be justified by the working conditions in which health professionals are inserted in this pandemic moment. Signs of hopelessness, sense of unhappiness and irritability are factors that corroborate the high rates of depersonalization found in this study. In addition to these factors, a study demonstrates that the constant dissatisfaction of HP in performing their work activities together with stressors - pandemic -, suggest the development of BS characterized by high levels of dissatisfaction that negatively influence the quality of life of workers <sup>(28)</sup>.

Analyzing the other variables of this study, the high rates of Burnout can still be related to low pay as well as high weekly workload, because most participants have income from 1 to 2 minimum wages and work up to 48 hours per week. These data relate to another national study, which states that organizational risk factors such as low wages, high levels of employer demand, direct contact with pain and suffering of patients are predominant for the development of BS <sup>(23)</sup>.

Regarding the pandemic period, with regard to mental health, health professionals face the emotional strain of having to deal with the feeling of hopelessness, despair, fear of death and other negative mental repercussions, which contributes to the emergence of post-traumatic disorders, depressive and anxiety symptoms <sup>(25)</sup>.

As for the analysis of anxiety, stress and depression rates among health professionals, in Brazil, generalized anxiety disorder affects about 9.3% of the population; however, the prevalence of anxiety symptoms found in this study is 39,7%, indexes that exceed the Brazilian estimate <sup>(14)</sup>. Other national data state that about 40% of the participants have depression, an index that is higher than that observed in this study 31.0% <sup>(16)</sup>.

Previous studies conducted with Brazilian health professionals point to considerable rates of mental health problems for these professionals. A study conducted with health workers indicates levels of anxiety, depression and stress (34%, 30.5% and 42%, respectively). Another study showed higher levels of anxiety in professionals who worked during the pandemic period. According to the authors, the overall prevalence of anxiety was around 35%, resembling the data obtained in this study <sup>(29)</sup>.

The increase in the number of contaminated workers and absenteeism are factors that contribute to the psychic exhaustion of HP. A study conducted with nurses and nursing technicians who worked during the pandemic period showed that 39.6% of the professionals had moderately severe and severe anxiety and that 38.0% had moderate and severe levels of depression. Such professionals have the highest rates of mental disorders compared to other professionals who did not work during the pandemic period <sup>(26)</sup>.

In pandemic periods, the authorities focus on containing the advance of the pathological agent, leaving mental health in the background. The lack of psychological support contributes to the increase in the rates of common mental disorders analyzed in this study. Corroborating this idea, another study showed the rates of anxiety, depression and stress among health professionals, showing that the prevalence of

anxiety ranged from 48% to 86% of the sample; depression between 26% and 55% of the sample and that the stress indexes had values between 20% and 45% <sup>(14,28)</sup>.

According to scientific publications, the high rates of anxiety, stress and depression are related to professional action on the frontline in combating covid-19, but also to the fear of exposing the family to the virus, providing direct assistance to the patient, in addition to lack of experience in the service, aspects that may compromise the quality of care and patient survival <sup>(29)</sup>. These data are consistent with the national reality and the data analyzed in this study.

Some limitations found throughout this study concern the pandemic period, a factor that prevented greater contact with research participants, difficulty to locate studies on the subject, considering that it is a new theme, in addition to the resistance of the study population to answer the questionnaires.

## CONCLUSION

In recent months, there has been a growth in mental illness rates among the Brazilian population. The covid-19 pandemic has been a determining factor for increasing these rates considering the increase in levels of insomnia, anxiety, stress, depression and other mental disorders. Among the affected population, health professionals, who are on the frontline in the battle against the virus, seem to have represented a portion considered among those affected.

According to the data presented here, the rates of anxiety, stress and depression of health workers were comparable to the national levels presented in other studies. Thus, the need for interventions in the demands related to mental illness of health professionals stands out. Moreover, there is a high rate of professionals with Burnout syndrome in the depersonalization phase, which is a worrying finding.

Considering the mental health problems of health professionals, the findings of this study are important, since they allow and encourage discussions to promote actions to reverse the scenario, being essential to plan interventions such as the elaboration of measures, protocols, mental health care with specialized professionals, among other measures.

Specific strategies with integrated and articulated actions by the municipal authorities and a multidisciplinary and interdisciplinary team are necessary, which reach the physical and mental well-being of health professionals in this difficult period, in order to minimize damage to health and promote better quality of personal and professional life, an effect that can be reversed in a good professional resourcefulness to ensure quality assistance to users who undergo assistance in public health services.

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