







DEPRESSION SYMPTOMS IN NURSING PROFESSIONALS DURING THE COVID-19 PANDEMIC

Fernanda Maria Vieira Pereira Ávila¹ 
Maithê de Carvalho e Lemos Goulart¹ 
Fernanda Garcia Bezerra Góes¹ 
Ana Cristina de Oliveira e Silva² 
Fernanda Carla Pereira Duarte¹ 
Claudia Pontes Braz de Oliveira¹ 

ABSTRACT

Objective: to identify depression symptoms in Nursing professionals during the COVID-19 pandemic. **Method:** a cross-sectional and observational study, conducted with Nursing professionals through an electronic form in the five Brazilian regions. An instrument with general information was used, as well as the Patient Health Questionnaire-9 to identify depression symptoms. The Student's t hypothesis and Analysis of Variance tests were adopted.

Results: the participants were 3,249 professionals. Of these, 2,092 (64.4%) did not present depression symptoms or presented minimal symptoms; 603 (18.6%) presented moderate symptoms; 330 (10.2%) had moderate to severe symptoms; and 224 (6.9%), severe symptoms. Women, workers from the North region, young adults, single and with an income of up to four minimum wages presented higher depression scores ($p < 0.05$).

Conclusion: the Nursing professionals did not present depression symptoms, or presented mild symptoms of the disease. Variables such as gender, age group, marital status, region of the country, having contact with people infected by COVID-19, and not using masks presented significant differences with depression symptoms.

DESCRIPTORS: Depressive Symptoms; Nursing; Infections by Coronavirus; Pandemic; Mental Health.

SÍNTOMAS DE DEPRESIÓN EN PROFESIONALES DE ENFERMERÍA DURANTE LA PANDEMIA DE COVID-19

RESUMEN:

Objetivo: identificar síntomas de depresión en profesionales de Enfermería durante la pandemia de COVID-19. **Método:** estudio transversal y observacional, realizado con profesionales de Enfermería por medio de un formulario electrónico, en las cinco regiones de Brasil. Se utilizó un instrumento con información general y el Patient Health Questionnaire-9 para identificar síntomas de depresión. Se adoptaron las pruebas de hipótesis t de Student y Análisis de Variancia. **Resultados:** participaron 3249 profesionales. De ellos, 2092 (64,4%) no presentaron síntomas de depresión o tuvieron síntomas mínimos, 603 (18,6%) moderados, 330 (10,2%) de moderados a graves y 224 (6,9%) síntomas graves. Las mujeres, los trabajadores de la región Norte, los adultos jóvenes, las personas solteras y con un ingreso de hasta cuatro salarios presentaron puntajes de depresión más elevados ($p < 0,05$). **Conclusión:** los profesionales de Enfermería no presentaron síntomas de depresión o tuvieron síntomas leves. Variables como el sexo, el grupo etario, el estado civil, la región del país, tener contacto con personas infectadas por COVID-19 y no usar máscaras evidenciaron diferencias significativas con los síntomas de depresión.

DESCRIPTORES: Síntomas Depresivos; Enfermería; Infecciones por Coronavirus; Pandemia; Salud Mental.

¹Universidade Federal Fluminense. Rio das Ostras, RJ, Brasil.

²Universidade Federal da Paraíba, João Pessoa, PB, Brasil.

INTRODUCTION

The Coronavirus Disease 2019 (COVID-19) pandemic, caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), had its outbreak in Wuhan, China, in December 2019, and spread rapidly throughout the world. Up to date, there are more than 111 million confirmed cases in the planet⁽¹⁾. In February 2020, the Centers for Disease Control and Prevention (CDC) classified the disease as a major threat to public health and, in March of the same year, the World Health Organization (WHO) declared it as a pandemic⁽¹⁻²⁾.

Respiratory transmission is the main means of propagation among human beings, in addition to touching contaminated surfaces or objects. The most common symptoms are cough, fever and shortness of breath, occurring between two and 14 days after infection, but there are reports of incubation up to 24 days⁽²⁻³⁾.

The disease is increasing in Brazil, with more than ten million cases in February 2021⁽⁴⁾, leading to an overload of the Brazilian health system, with shortage of human and material resources and equipment, in addition to inadequate managements and deficient budgets⁽⁵⁾. The Unified Health System (*Sistema Único de Saúde, SUS*) faces overcrowding of hospitals, with lack of beds due to the high demand of patients infected, especially in Intensive Care Units⁽⁶⁾.

This historic-sanitary moment of the pandemic has a direct repercussion on the mental health of people in general, and especially of health workers⁽⁷⁾. In addition, depression among Nursing professionals tends to intensify in the face of the contagious impact of SARS-CoV-2, shortage of masks, fear of the unexpected, and high mortality rate in the category⁽⁸⁾.

Continuous care for patients is a characteristic of Nursing, thus highlighting its importance during this global crisis⁽⁹⁾. However, the working conditions of these professionals commonly include long hours, high stress levels and devaluation of the profession, in addition to constant conflicts and lack of resources⁽¹⁰⁾.

This scenario became more complex in the pandemic context, considering the vulnerability and exposure of the professionals to contamination by SARS-CoV-2⁽¹¹⁾. Therefore, an important aspect consists of the mental health of the Nursing team, as the labor factors generate important psychological impacts, contributing to the increase in the risk of illness⁽¹²⁾.

The growing number of Nursing professionals infected is a cause for concern since they are, on a large scale, responsible for the direct care of infected patients^(10,13). In February 2021, the Federal Nursing Council (*Conselho Federal de Enfermagem, COFEN*) recorded more than 48,000 confirmed cases and 590 deaths due to COVID-19⁽¹⁴⁾.

Therefore, the assessment of the repercussions of the COVID-19 pandemic on the mental health of these workers is extremely important⁽⁹⁾, given the long-term effects that mental disorders can bring. Research studies from China, at the beginning of the outbreak, pointed out an increase in the mental involvement of workers on the front line, especially Nursing professionals⁽¹²⁻¹³⁾.

Another Chinese study, conducted with nurses, identified a depression rate of 47.1% and the related factors were stress and low quality of family relationships⁽¹⁵⁾. In addition, there are structural and support deficits to offer adequate assistance to these professionals⁽¹¹⁻¹²⁾. However, in the Brazilian scenario, the effects of the pandemic on the mental health of Nursing workers are not known, representing itself as a knowledge gap to be filled.

Reflecting on the reality of the health system in the country, especially in relation to

the working conditions of the Nursing professionals and the increased demand, factors that potentially generate stress and consequently depression, there is the following guiding question: Do Brazilian Nursing professionals present depression symptoms during the COVID-19 pandemic?

In order to answer this question, the instrument chosen was the Patient Health Questionnaire-9 (PHQ-9), a scale used worldwide, validated and available in several languages with the objective of assessing the presence of depression symptoms. PHQ-9 is a simple and quick test, recommended for the screening of depressive episodes⁽¹⁶⁾.

Consequently, the objective was to identify depression symptoms in Nursing professionals during the COVID-19 pandemic.

METHOD

A cross-sectional and observational study, with a quantitative approach, conducted through an electronic form in the five Brazilian regions. This study is a subproject of the research entitled: "Multinational study on the practice of face mask use among the general population during the COVID-19 pandemic".

Data collection took place from April 17th to May 15th 2020 by means of messages sent in social media (Facebook, Twitter, Instagram and WhatsApp), through which the professionals were invited by the study team. The link, containing the research information and the form to be filled in, was made available by researchers (mostly nurses) from different regions of the country among their contacts. No time limit was stipulated for answering the form, remaining at the discretion of each participant. All the instruments received were filled out in their entirety.

For sample calculation, the number of 2,336,725 Nursing professionals in Brazil was considered⁽¹⁰⁾. A 5% error margin, 95% confidence interval, 50% prevalence and 80% test power were adopted, culminating in the minimum sample of 385 participants. Sample calculation was for finite populations, considering 50% prevalence due to the absence of prior information on the expected event (depression in Brazilian Nursing professionals) in the scientific literature.

The inclusion criterion was as follows: Nursing professionals aged 18 or over; and the exclusion criterion was the following: foreigners living in Brazil, since the scale used was validated for Brazilian Portuguese; thus, there could be divergences in the understanding of terms and expressions (conceptual, semantic, idiomatic).

The data collection instrument, accessed through Google Forms, included two parts: 1-General information (gender, marital status, age group, professional category, region, monthly income, if their occupation exposes them to COVID-19, if they had contact with people with COVID-19, and mask use); 2-Brazilian version of the Patient Health Questionnaire-9 (PHQ-9).

PHQ-9 has the potential to assess the presence of Major Depressive Disorder (MDD) symptoms, according to the manifestation of four or more symptoms in the last two weeks. However, the clinical diagnosis of depression is performed by a qualified professional⁽¹⁷⁾. The instrument was validated for Brazil with satisfactory validity and reliability levels⁽¹⁶⁾.

The version of PHQ-9 in Portuguese has nine questions that address the following: lack of interest in activities, difficulty sleeping, feelings of failure and disappointment, difficulty concentrating, and thoughts of self-mutilation and death. The Likert-type answer options vary from 0 to 3 points, corresponding to "not at all", "several days", "more than

half of the days" and "almost every day", respectively⁽¹⁶⁾.

The total score varies from 0 to 27 points, with severity of the depressive symptoms being related to higher scores. The points total represents the following classification: 5 - mild symptoms, 10 - moderate severity in the symptoms, 15 - moderately severe depressive symptoms, and 20 -severe symptoms. A cutoff point equal to or greater than 10 generates a yellow alert due to the possible significant clinical condition, and a cutoff point equal to or greater than 15 generates a red alert for the need of clinical monitoring⁽¹⁷⁾.

The data were analyzed in the IBM® SPSS v.20 program. Descriptive statistics with measures of central tendency (mean, median, minimum and maximum) and of dispersion (standard deviation) was used. For the comparison of the scale scores between the individual and professional variables, the Student's t hypothesis and Analysis of Variance (ANOVA) tests were used. p-values<0.05 and 95% confidence interval (95% CI) were considered statistically significant. The outcome variable (dependent) was the mean of the overall score of depression symptoms, identified by PHQ-9; and the independent variables were gender, marital status, age group, professional category, region, monthly income, if their occupation exposes them to COVID-19, contact with people with COVID-19, and mask use.

The study was approved by the Ethics in Research National Commission (*Comissão Nacional de Ética em Pesquisa, CONEP*), Opinion No. 3,971,512. The participants agreed to the Free and Informed Consent Form online, anonymity being guaranteed through numerical codes.

RESULTS

The participants were 3,249 Nursing professionals, mostly technicians (n=2,792/85.9%), women (n=2,930/90.2%) and from the Southeast region (n=1,199/36.9%). Their mean age was 37 years old (SD=11.4), varying between 18 and 85. Of the total, 880 (27.1%) reported direct contact with someone diagnosed with COVID-19 in the past two weeks (Table 1).

Table 1 - Characterization of the Nursing professionals according to individual and professional variables (n=3,249). Niterói, RJ, Brazil, 2020 (continues)

Variables	n	%
Gender		
Male	319	9,8
Female	2930	90,2
Professional Category		
Nursing Technician	2792	85,9
Nurse	457	14,1
Brazilian Regions		
North	224	6,9
Northeast	1151	35,4
Midwest	365	11,2

Southeast	1199	36,9
South	310	9,5
Marital Status		
Single	1318	40,6
Married or in a relationship	1668	51,3
Divorced/Separated	233	7,2
Widowed	30	0,9
Age group (years old)		
18-24	449	13,8
25-34	1127	34,7
35-44	937	28,8
45+	736	22,7
Monthly income		
<1 wage	84	2,6
1-2 wages	538	16,6
3-4 wages	846	26
5-6 wages	641	19,7
>7 or more wages	1140	35,1
Had direct contact with someone diagnosed with COVID-19		
No	2369	72,9
Yes	880	27,1
Occupation exposes to COVID-19		
No	722	22,2
Yes	2527	77,8

Source: The authors (2020)

In the analysis of the answers to PHQ-9, the depression symptoms were reported with some frequency by the Nursing professionals, some of the most frequent being related to little interest, sleep and tiredness (Table 2).

Tabela 2 - Distribuição de frequência das respostas dos profissionais de enfermagem (n=3249) aos itens do Patient Health Questionnaire-9 (PHQ-9). Niterói, RJ, Brasil, 2020 (continues)

PHQ-9 items	Not at all	Several days	More than half of the days	Almost every day
	n (%)	n (%)	n (%)	n (%)
1 - Little interest or pleasure in doing things	948 (29,2)	1388 (42,7)	493 (15,2)	420 (12,9)
2 - Feeling down, depressed, or hopeless	1017 (31,3)	1511 (46,5)	360 (11,1)	361 (11,1)

3 - Difficulty falling or remaining asleep or kept sleeping more than the usual	844 (26,0)	1371 (42,2)	404 (12,4)	630 (19,4)
4 - Feeling tired or having little energy	716 (22,0)	1555 (47,9)	431 (13,3)	547 (16,8)
5 - Poor appetite or overeating	920 (28,3)	1221 (37,6)	437 (13,5)	671 (20,7)
6 - Feeling bad about yourself—or that you are a failure or have let yourself or your family down	1756 (54,0)	914 (28,1)	256 (7,9)	323 (9,9)
7 - Trouble concentrating on things, such as reading the newspaper or watching television	1170 (36,0)	1313 (40,4)	355 (10,9)	411 (12,7)
8 - Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	1916 (59,0)	896 (27,6)	208 (6,4)	229 (7,0)
9 - Thoughts that you would be better off dead or of hurting yourself in some way	2979 (91,7)	181 (5,6)	43 (1,3)	46 (1,4)

Source: The authors (2020)

Considering PHQ-9, 2,092 (64.4%) professionals did not present depression symptoms or presented minimal symptoms; 603 (18.6%) presented moderate symptoms; 330 (10.2%) had moderate to severe symptoms; and 224 (6.9%), severe symptoms. The general score of depression symptoms was 8.4 (SD=6.2), varying between 0 and 27 points.

When comparing the mean of the general score of depression symptoms and the independent variables, a statistically significant difference was obtained for gender, Brazilian regions, age, marital status, income, contact with someone diagnosed with COVID-19, and mask use ($p < 0.05$) (Table 3).

Table 3 - General score of depression symptoms and individual and professional variables (n=3,249). Niterói, RJ, Brazil, 2020 (continues)

Variables	n	Mean Score	95% CI	SD	Test value	p-value
Gender						
Male	319	7,1	6,4-7,8	6	t=-3,85	0,000
Female	2930	8,5	8,3-8,7	6,2		
Professional Category						
Nursing Technician	2792	8,3	8,1-8,6	6,1	t=-0,82	0,408
Nurse	457	8,6	8,0-9,2	6,6		
Brazilian Regions						
North	224	9,2	8,3-10,4	6,8	F=2,39	0,048
Northeast	1151	8,4	8,0-8,7	6,2		
Midwest	386	8,4	7,7-9,0	6,1		

Southeast	1199	8,4	8,1-8,8	6,2		
South	310	7,6	6,9-8,2	5,7		
Age (years old)						
18-24	449	11	10,4-11,6	6,4		
25-34	1127	9,2	8,8-9,5	6,2	F=74,3	0,000
35-44	937	8	7,7-8,4	5,7		
45+	736	6	5,6-6,4	5,7		
Marital status						
Single	1318	9,4	9,0-9,7	6,4		
Married	1668	7,7	7,4-8,0	5,9	F=22,36	0,000
Separated/Divorced	233	7,8	7,0-8,7	6,3		
Widowed	30	4,5	2,3-6,6	5,8		
Income						
Up to 4 wages	1468	9,4	9,0-9,7	6,5	t= 8,24	0,000
5 or more wages	1781	7,6	7,3-7,8	5,8		
Current occupation exposes to COVID-19						
No	722	8,3	7,8-8,8	6,2	t=-0,33	0,734
Yes	2527	8,4	8,2-8,6	6,2		
Contact with people with COVID-19						
No	2369	8,1	7,9-8,4	6,1	t=-3,45	0,001
Yes	880	9	8,6-9,4	6,3		
Mask use						
No	235	9,5	8,6-10,5	7,2	t=2,54	0,011
Yes	3014	8,3	8,1-8,5	6,1		

t=Student's t test; F=Anova; CI=Confidence Interval
Source: The authors (2020)

Female Nursing professionals presented a higher mean score of depression symptoms than men ($p=0.000$); likewise, workers in the North region also had higher rates in relation to other regions ($p=0.048$). Higher scores were also found among young adults, single and with a monthly income of up to four wages ($p=0.000$).

The professionals who had contact with people with COVID-19 in the last two weeks presented a higher score for depression symptoms when compared to those who had no contact ($p=0.001$). The professionals who did not use masks presented higher scores for the depressive symptoms, when compared to those who did use masks ($p=0.011$).

DISCUSSION

Most of the participants did not present depression symptoms or had mild symptoms. However, it was verified that female professionals, aged between 18 and 24 years old, single, and living in the North region presented a higher score of depression symptoms.

The participants were mostly women, a fact that is compatible with the profile of the profession, characterized by the female historical legacy, which represents more than 85% of the workforce in Brazil⁽¹⁸⁾. In addition, the study revealed that women presented a higher mean in the score for depressive symptoms, corroborating with the World Health Organization, which points out that depression is not only more prevalent in women than in men, but that it also tends to be more persistent⁽¹⁹⁾.

The mean of the general score of depression symptoms found is close to the cutoff point for the moderate depression symptoms, according to a study that assessed the mental health of 83 nurses in Portugal and found that approximately 38.6% of the participants presented moderate and severe symptoms, in addition to the possible existence of psychological distress. There was also a relation between loss of emotional-behavioral control, depression, distress and well-being with the gender variable, indicating that female nurses presented lower levels of mental health than men⁽²⁰⁾, in consonance with the results found.

A higher score of depression symptoms in single individuals stood out, differing from an integrative review study, which revealed that married professionals, mainly women, develop higher stress levels that can trigger depression, due to the extensive work and household demands, generating physical and mental overload⁽²¹⁾.

Age was signaled as an important factor for mental health, in the sense that young individuals were the most affected. A research study that evaluated factors associated with occupational stress in 126 Nursing professionals pointed out that there are higher rates of anxiety and depression symptoms related to emotional exhaustion in younger professionals, suggesting a relationship between age and experience⁽²²⁾, consistent with the current findings.

The higher prevalence of professionals in the Southeast region is compatible with the clear hegemony of this region regarding professional training in the area, with an important concentration of workers in the states that comprise it, while the North and Northeast regions suffer from a shortage of these professionals⁽²³⁾. However, the professionals in the North region presented a higher score of depression symptoms, precisely where the highest proportional rate of deaths due to COVID-19 is concentrated in Brazil, totaling, in February 2021, 140 deaths per 100,000 inhabitants⁽⁴⁾.

This study verified that contact with people with COVID-19 and not using masks were also statistically significant. A result that differs from the study carried out in Austria with 4,126 participants, where the use of masks was associated with greater stress, anxiety and depression levels⁽²⁴⁾.

Approximately one third of the professionals stated having had direct contact with someone diagnosed with COVID-19. It is known that, despite the professional duty to care for the community during the pandemic, many professionals have had concerns about their work and its impact on themselves. In particular, the risk of being infected and the restrictions on personal freedom can directly affect the mental health of these people⁽²⁵⁾, reinforcing the relevance of studies in this directive.

Depressive symptoms were identified among Nursing professionals. Thus, the psychological distress presented by these professionals can be accompanied by a chain of symptoms such as muscle pain, imbalance in the weight cycle, tension, anguish, insomnia, anxiety and occupational stress, as indicated in the literature⁽²⁶⁾.

Approximately half of the professionals reported having little interest or pleasure in doing things for several days, this being one of the symptoms of depression, corroborating

with international data from a meta-analysis on the psychological effects of the COVID-19 pandemic among health professionals. Among the 33,062 participants, the prevalence of depression was 22.8% with differences in gender and occupation, with female nurses showing higher rates of psychological distress symptoms, compared to men and medical teams⁽²⁷⁾, highlighting the importance of the current findings.

Most of the professionals answered that they felt tired or with little energy, corroborating a Brazilian study that evaluated the most frequent feelings after a month of care, for Nursing professionals working on the front line against COVID-19. Exhaustion and wear out were the most mentioned feelings, in addition to stress related to the increase in the demand and in the number of deaths⁽²⁸⁾.

The increase in the demand for health services during the pandemic exerted a negative influence on the work of the health professionals. Thus, in line with the current data, a research study conducted with 2,707 professionals identified work-related tiredness or exhaustion in 51.4% of them, with an association with exposure to COVID-19⁽²⁹⁾.

Nursing professionals are at higher risk for suicide than the general population given the stressful characteristics, such as workload, loneliness, lack of autonomy, low wages and negative outcomes on patients' prognosis⁽³⁰⁾. Such factors are in line with the results regarding the item that deals with the desire for self-harm or thinking about being dead. It is worth mentioning that this item identifies the risk of suicidal ideation when answered positively, as well as the need for assistance interventions. Mental health issues have been attracting attention, especially in this pandemic moment. The daily lives of the Nursing professionals in their activities are permeated by concerns, uncertainties, tension and anguishes. Thus, it becomes imperative to articulate mental health, social and occupational conditions.

As a study limitation, its cross-sectional design stands out, which does not allow for casual inferences. In addition, the depression symptoms identified cannot always be ratified in the assessment by the mental health professionals to be carried out in detail, considering various aspects of the individual's life, which are not considered in a single scale applied virtually. However, this study provides valuable information about the Nursing professionals in the psychological responses during the COVID-19 pandemic in Brazil.

CONCLUSION

The Nursing professionals did not present depression symptoms, or presented mild symptoms of the disease, according to the PHQ-9 scale. Variables such as gender, age group, marital status, region of the country, having contact with people infected by COVID-19, and not using masks had a statistically significant difference with the mean score of depression.

Managerial and assistance actions are needed to provide regular psychological support as a prevention strategy to deal with the mental distress expressed by some professionals during the pandemic.

Considering the importance of these professionals and the Nursing workforce, valuing them and providing better working conditions can be effective in preventing illness and absenteeism during and after the pandemic.

ACKNOWLEDGMENT

To the National Council for Scientific and Technological Development (CNPq) for funding this study (Process No. 401371/2020-4).

REFERENCES

1. World Health Organization (WHO). Rolling updates on coronavirus disease (COVID-19). [Internet] Geneva: WHO; 2020 [accessed 15 maio 2020]. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>.
2. Jernigan DB. Centers for Disease Control. Update: public health response to the coronavirus disease 2019 outbreak — United States, February 24, 2020. MMWR Morb Mortal Wkly Rep. [Internet]. 2020 [accessed 13 maio 2020]; 69(8). Available from: <http://dx.doi.org/10.15585/mmwr.mm6908e1>.
3. Netto RGF, Corrêa JW do N. Epidemiologia do surto de doença por coronavírus (COVID-19). Revista Desafios. [Internet]. 2020 [accessed 21 maio 2020]; 7(esp3). Available from: <https://doi.org/10.20873/uftsuple2020-8710>.
4. Ministério da Saúde (BR). COVID19. Painel Coronavírus. [Internet]. Brasília: Ministério da Saúde; 2020 [accessed 14 mai 2020]. Available from: <https://covid.saude.gov.br/>.
5. Nascimento FL, Pacheco A do ESD. Sistema de saúde público no Brasil e a pandemia do novo coronavírus. Boletim de Conjuntura (BOCA). [Internet]. 2020 [accessed 15 maio 2020]; 5(2). Available from: <http://doi.org/10.5281/zenodo.3759724>.
6. Noronha KVM de S, Guedes GR, Turra CM, Andrade MV, Botega L, Nogueira D, et al. Pandemia por COVID-19 no Brasil: análise da demanda e da oferta de leitos hospitalares e equipamentos de ventilação assistida segundo diferentes cenários. Cad. Saúde Pública. [Internet]. 2020 [accessed 02 set 2020]; 36(6). Available from: <https://doi.org/10.1590/0102-311x00115320>.
7. Esperidião E, Saidel MGB, Rodrigues J. Saúde mental: foco nos profissionais de saúde. Rev. Bras. Enferm. [Internet]. 2020 [accessed 05 ago 2020]; 73(supl1). Available from: <https://doi.org/10.1590/0034-7167.202073supl01>.
8. Howard J, Huang A, Li Z, Tufekci Z, Zdimal V, Price A, et al. Face masks against COVID-19: an evidence review. Preprints. [Internet]. 2020 [accessed 05 ago 2020]. Available from: <https://doi.org/10.20944/preprints202004.0203.v1>.
9. Barbosa DJ, Gomes MP, de Souza FBA de, Gomes AMT. Fatores de estresse nos profissionais de enfermagem no combate à pandemia da COVID -19: síntese de evidências. Com. Ciências Saúde. [Internet]. 2020 [accessed 20 maio 2020]; 31(supl1). Available from: <http://www.escs.edu.br/revistaccs/index.php/comunicacaoemcienciasdasaude/article/view/651>.
10. Miranda FMA, Santana L de L, Pizzolato AC, Saquis LMM. Condições de trabalho e o impacto na saúde dos profissionais de enfermagem frente a Covid-19. Cogitare enferm. [Internet]. 2020 [accessed 22 maio 2020]; 25:e72702. Available from: <http://dx.doi.org/10.5380/ce.v25i0.72702>.
11. Souza LPS e, Souza AG de. Enfermagem brasileira na linha de frente contra o novo Coronavírus: quem cuidará de quem cuida? J. nurs. health. [Internet]. 2020 [accessed 18 maio 2020]; 10(4). Available from: <http://dx.doi.org/10.15210/jonah.v10i4.18444>.
12. Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: a cross-sectional study. Brain Behav Immun. [Internet]. 2020 [accessed 22 maio 2020]; 87. Available from: <https://doi.org/10.1016/j.bbi.2020.03.028>.
13. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, et al. Factors associated with mental health outcomes among

health care workers exposed to coronavirus disease 2019. JAMA netw open. [Internet]. 2020 [accessed 28 maio 2020]; 3(3). Available from: <https://doi.org/10.1001/jamanetworkopen.2020.3976>.

14. Conselho Federal de Enfermagem (COFEN). Enfermagem em Números. [Internet]. 2020 [accessed 19 mai 2020]. Available from: <http://www.cofen.gov.br/enfermagem-em-numeros>.

15. Zheng R, Zhou Y, Fu Y, Xiang Q, Cheng F, Chen H, et al. Prevalence and associated factors of depression and anxiety among nurses during the outbreak of COVID-19 in China: a cross-sectional study. Int J Nurs Stud [Internet]. 2021 [accessed 21 fev 2021]; 114. Available from: <https://doi.org/10.1016/j.ijnurstu.2020.103809>.

16. Santos IS, Tavares BF, Munhoz TN, Almeida LSP de, Silva NTB da, Tams BD, et al. Sensibilidade e especificidade do Patient Health Questionnaire-9 (PHQ-9) entre adultos da população geral. Cad Saude Publica. [Internet]. 2013 [accessed 28 maio 2020]; 29(8). Available from: <https://doi.org/10.1590/0102-311X00144612>.

17. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. [Internet]. 2001 [accessed 23 maio 2020]; 16(9). Available from: <http://doi.org/10.1046/j.1525-1497.2001.016009606.x>.

18. Lombardi MR, Campos VP. A enfermagem no Brasil e os contornos de gênero, raça/cor e classe social na formação do campo profissional. Revista da ABET. [Internet]. 2018 [accessed 23 maio 2020]; 17(1). Available from: <https://doi.org/10.22478/ufpb.1676-4439.2018v17n1.41162>.

19. World Health Organization (WHO). Gender and women's mental health. Gender disparities and mental health: The Facts. [Internet]. WHO; 2014 [accessed 03 ago 2020]. Available from: http://www.who.int/mental_health/prevention/genderwomen/en/.

20. Carvalho DRS de, Querido AIF, Tomás CC, Gomes JMF, Cordeiro MSS. A saúde mental dos enfermeiros: um estudo preliminar. Rev. port. enferm. saúde mental. [Internet]. 2019 [accessed 03 ago 2020]; 21. Available from: <http://dx.doi.org/10.19131/rpesm.0237>.

21. Silva D dos SD, Tavares NV da S, Alexandre ARG, Freitas DA, Brêda MZ, Albuquerque MC dos S de, et al. Depressão e risco de suicídio entre profissionais de enfermagem: revisão integrativa. Rev Esc Enferm USP. [Internet]. 2015 [accessed 10 jun 2020]; 49(6). Available from: <http://doi.org/10.1590/S0080-623420150000600020>.

22. Novaes Neto EM, Xavier ASG, Araújo TM de. Fatores associados ao estresse ocupacional entre profissionais de enfermagem em serviços de saúde de média complexidade. Rev. Bras. Enferm. [Internet]. 2020 [accessed 05 ago 2020]; 73(supl1). Available from: <https://doi.org/10.1590/0034-7167-2018-0913>.

23. Silva MCN da, Machado MH. Sistema de saúde e trabalho: desafios para a enfermagem no Brasil. Ciênc saúde coletiva. [Internet]. 2020 [accessed 19 jun 2020]; 25(1). Available from: <https://doi.org/10.1590/1413-81232020251.27572019>.

24. Traunmüller C, Stefitz R, Gaisbachgrabner K, Schwerdtfeger A. Psychological correlates of COVID-19 pandemic in the Austrian population. BMC Public Health. [Internet]. 2020 [accessed 19 jun 2020]. Available from: <https://doi.org/10.21203/rs.3.rs-23337/v1>.

25. Fernandez R, Lord H, Halcomb E, Moxham L, Middleton R, Alananzech I, et al. Implications for COVID-19: a systematic review of nurses' experiences of working in acute care hospital settings during a respiratory pandemic. Int J Nurs Stud. [Internet]. 2020 [accessed 06 ago 2020]; 111. Available from: <https://doi.org/10.1016/j.ijnurstu.2020.103637>.

26. Rodrigues CCFM, Santos VEP. The body speaks: physical and psychological aspects of stress in nursing professionals. J. res. fundam. care. online. [Internet]. 2016 [accessed 06 ago 2020]; 8(1). Available from: <http://doi.org/10.9789/2175-5361.2016.v8i1.3587-3596>.

27. Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsis E, Katsaounou P. Prevalence of depression, anxiety, and insomnia among health care workers during the COVID-19 pandemic: a systematic review and meta-analysis. Brain Behav Immun. [Internet]. 2020 [accessed 06 ago 2020]; 88. Available from:

<https://doi.org/10.1016/j.bbi.2020.05.026>.

28. Humerez DC de, Ohl RIB, Silva MCN da. Saúde mental dos profissionais de enfermagem do Brasil no contexto da pandemia Covid-19: ação do Conselho Federal de Enfermagem. Cogitare enferm. [Internet]. 2020 [accessed 17 jun 2020]; 25:e74115. Available from: <http://dx.doi.org/10.5380/ce.v25i0.74115>.

29. Morgantini LA, Naha U, Wang H, Francavilla S, Acar O, Flores JM, et al. Factors contributing to healthcare professional Burnout during the COVID-19 pandemic: a rapid turnaround global survey. MedRxiv. [Internet]. 2020 [accessed 08 ago 2020]; Available from: <https://doi.org/10.1101/2020.05.17.20101915>.

30. Davidson JE, Accardi R, Sanchez C, Zisook S. Nurse suicide: prevention and grief management. Am J Nurse [Internet]. 2020 [accessed 08 ago 2020]; 15(1). Available from: <https://www.myamericannurse.com/wp-content/uploads/2019/12/an1-Suicide-1223.pdf>.

HOW TO REFERENCE THIS ARTICLE:

Ávila FMVP, Goulart M de C e L, Góes FGB, Silva AC de O e, Duarte FCP, Oliveira CPB de. Depression symptoms in nursing professionals during the COVID-19 pandemic. Cogitare enferm. [Internet]. 2021 [accessed "insert day, month and year"]; 26. Available from: <http://dx.doi.org/10.5380/ce.v26i0.76442>.

Received: 09/09/2020

Approved: 16/03/2021

Associate editor: Luciana Puchalski Kalinke

Corresponding author:

Fernanda Carla Pereira Duarte

Universidade Federal Fluminense – Rio das Ostras, RJ, Brasil

E-mail: fc.duarte12@gmail.com

Role of Authors:

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - MCLG, FGBG, ACOS, CPBO

Drafting the work or revising it critically for important intellectual content - FGBG, FCPD

Final approval of the version to be published - FGBG, FCPD

Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - FMVPA



Copyright © 2021 This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original article is properly cited.