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Prevalence and factors associated with anxiety, depression and stress in a COVID-19 nursing team

Prevalência e fatores associados à ansiedade, depressão e estresse numa equipe de enfermagem COVID-19

Prevalencia y factores asociados con ansiedad, depresión y estrés en un equipo de enfermería COVID-19

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ABSTRACT

Objective: To investigate the levels of anxiety, depression and stress and their associated factors, among nursing professionals who make up the team working against COVID-19 of a University Hospital in the south of Brazil.
Method: Exploratory, descriptive, cross-sectional study conducted from May to July 2020.
Results: From the total number of professionals, 53.8% had anxiety; 38.4% depression; and 40.3%, stress. Age, length of service in the profession, job satisfaction and work shift showed a statistically significant association with depression, while the employment contract, length of service in the UH, length of service in the unit prior to the opening of the COVID-19 unit and satisfaction at work showed a significant association with stress.
Conclusions: The nursing professionals of the COVID-19 team have important levels of anxiety, depression and stress, and the factors associated with depression and stress have been identified.
Keywords: Anxiety. Depression. Occupational stress. Coronavirus infections. Risk factors.

RESUMO

Objetivo: Investigar os níveis de ansiedade, depressão e estresse e seus fatores associados, entre profissionais de enfermagem que compõem a equipe que atua na unidade COVID19 de um Hospital Universitário na região sul-brasileira.
Método: Estudo exploratório, descritivo, transversal realizado de maio a julho de 2020.
Resultados: Do total de profissionais,53,8% apresentaram ansiedade;38,4% depressão; e 40,3%, estresse. Idade, tempo de serviço na profissão, satisfação no trabalho e turno de trabalho apresentaram associação estatisticamente significativa com a depressão, enquanto o contrato de trabalho, tempo de serviço no HU, tempo de serviço na unidade anterior à abertura da unidade COVID-19 e satisfação no trabalho apresentaram associação significativa com o estresse.
Conclusões: Os profissionais de enfermagem da equipe COVID-19 apresentam níveis importantes de ansiedade, depressão e estresse, sendo que os fatores associados à depressão e ao estresse foram identificados.
Palavras-chave: Ansiedade. Depressão. Estresse ocupacional. Infecções por coronavírus. Fatores de risco.

RESUMEN

Objetivo: Investigar los niveles de ansiedad, depresión y estrés y sus factores asociados, entre los profesionales de enfermería que integran el equipo de trabajo contra el COVID19 de un Hospital Universitario en el sur de Brasil.
Método: Estudio exploratorio, descriptivo, transversal realizado de mayo a julio de 2020.
Resultados: Del total de profesionales,53,8% presentaban ansiedad;38,4% de depresión; y 40,3%, estrés. La edad, el tiempo de servicio en la profesión, la satisfacción laboral y el turno de trabajo mostraron una asociación estadísticamente significativa con la depresión, mientras que el contrato de trabajo, el tiempo de servicio en la HU, el tiempo de servicio en la unidad antes de la apertura de la unidad COVID-19 y la satisfacción en el trabajo mostró una asociación significativa con el estrés.
Conclusiones: Los profesionales de enfermería del equipo COVID-19 presentan importantes niveles de ansiedad, depresión y estrés, y se han aclarado los factores asociados a la depresión y el estrés.
Palabras clave: Ansiedad. Depresión. Estrés laboral. Infecciones por coronavirus. Factores de riesgo.

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INTRODUCTION

Since December 2019, China has reported to the world the occurrence of infections by Sars-CoV-2, known as the new coronavirus (COVID-19), responsible for attacking humans on a large scale. In mid-February 2020, the first case was identified in Brazil, in the city of São Paulo, and since then, all states in the country, plus the Distrito Federal, have registered cases[1–2].

Health professionals are at the frontline of the fight against COVID-19, committed to the assessment, diagnosis, treatment, and care of patients with suspicion and those with Sars-CoV-2. In addition to the risk of contamination, these professionals still face problems such as the disorderly increase in the number of cases, the scarcity of personal protective equipment (PPE), long working hours and lack of specific treatment for the disease[3].

The complexity of the actions taken by health workers and the difficulties they have been facing with the new pandemic can increase the risk of stress, anxiety and depression. High rates of depression, anxiety and psychological distress have been seen among health workers in China, and being at the frontline of combating COVID-19 is considered an independent risk factor for worsening mental health[3].

Knowing the levels of anxiety, depression and stress of health professionals, measures can be implemented so that this suffering can be alleviated. The preservation of mental health must be integrated with the other health measures available, in order to ensure that the team does not carry permanent damage to mental health. One must recognize the challenges that the health team will be facing during a pandemic, in order to provide means of protecting mental health[4].

Thus, the present study aimed to investigate the levels of anxiety, depression and stress and their associated factors, among nursing professionals who make up the team that works at the COVID-19 unit of a University Hospital in the southern region of Brazil.

METHOD

This is an exploratory, descriptive, and cross-sectional study to assess the level of anxiety, depression and stress in nursing professionals who work at the COVID-19 unit of a public University Hospital (UH), in the southern region of Brazil. The hospital is a reference in the treatment of COVID-19 for a macro-regional health system and has 269 beds, exclusive to the public health system. From these, 30 beds are intended to serve patients affected by COVID-19, 10 beds for intensive care and 20 for clinical hospitalization.

A non-probabilistic and consecutive sample was formed by those who met the inclusion criteria of the study: to be a nursing professional working in the COVID-19 inpatient unit, for at least one month, during the period of May and July 2020. It was considered exclusion criteria: not being a hospital nursing professional and being away, regardless of the reason, during the study period. An electronic form was used for data collection, sent through a messaging application.

For the sociodemographic and labor characterization of the participants, it was elaborated an instrument validated by specialists (face validity, content and semantics) with the following data: gender, age, marital status, children, schooling, profession, employment contract, length of service, length of service at the institution, length of service at the unit before the COVID unit, location/unit where worked before the COVID unit, work shift and weekly workload.

To assess the symptoms of anxiety, depression and stress in these workers, it was used the Brazilian version of the Depression Anxiety Stress Scales scale (DASS-21)[5], originally developed by Lovibond and Lovibond(6). It is an assessment instrument consisting of a set of three subscales: anxiety, depression and stress that considers sensations and feelings experienced by the respondent in the seven days prior to its performance. This scale is self-administered, consisting by 21 questions, 7 of which with 4-point Likert-type answers for each subscale, ranging from 0 = "not applied at all" to 3 = "applied a lot or most of the time". The result was obtained by adding the scores of the 7 items for each of the three subscales. The highest scores on each scale correspond to more negative affective states[5]. The final DASS-21 score and the total score for each subscale was multiplied by two[5–6]. In addition, each of the three states was classified as normal, mild, moderate, severe and very severe, according to the authors' guidelines[5–6].

All regulations were met of Resolution 466/2012 of the National Health Council[7]. The present study is an excerpt from a matrix project entitled "Health-related quality of life and its strands: investigation of the positive and negative impact on human daily life" approved by the Research Ethics Committee of the *Universidade Estadual do Oeste do Paraná*, under statement No. 2.588.565, CAAE 84505918.6.0000.0107, on April 9, 2018; with Amendment under statement No. 4.025.567 of May 13, 2020.

The data collected were compiled in Microsoft® Excel 2010 spreadsheets and, subsequently, processed and analyzed by the Statistical Package for the Social Sciences (SPSS) version 23.0, according to the guidance proposed by the authors, in the construction of the scale[5–6]. The assumptions of the variables were tested through the tests of normality (Shapiro-Wilk) and homoscedasticity (Levene's test).

Descriptive analyzes were performed for all variables, using measures of percentage proportion for categorical variables,

as well as measures of central tendency and dispersion for quantitative variables, considering possible missing data.

For DASS-21, the values for its subscales were calculated continuously (mean±SD, median, amplitude) and categorically (normal, mild, moderate, severe, and extremely severe). Still, the polytomous variables (normal, mild, moderate, severe, and extremely severe) were recoded to dichotomous (Yes/No), in order to know which participants had the three disorders (anxiety, depression and stress).

To investigate the factors associated with anxiety, depression and stress, the chi-square test was used for the variables gender, marital status, schooling, profession, having children (yes/no), place where they worked before the COVID-19 unit , work shift, type of employment contract; and the t-test for independent samples for the variables age, weekly workload, job satisfaction, length of service in the profession, length of service at the institution, length of service at the unit before the COVID unit. The level of significance was set at 0.05. Efforts were considered to avoid the risk of bias.

The reliability of the DASS-21 scale was assessed by the internal consistency of its items, measured by the Cronbach's alpha coefficient, with values above 0.70 being considered as evidence of reliability[8].

RESULTS

From the 76 professionals of the nursing team at the COVID-19 unit of the hospital in question, there was adherence of 52 (68.4%), composing the study sample. From these, there was a higher frequency of women (88.5%), married/consensual union (51.9%), with an average age of 38.3 years old, ranging from 23 to 54 years old, with predominance of individuals aged 31 years old, who have children (67.3%). Most of the sample consisted of nursing technicians (71.2%), followed by nurses (23.1%), with a workload ranging from 36 to more than 40 hours per week (Table 1).

The means for anxiety, depression and stress among the health professionals studied are shown in Table 2, as well as the Cronbach's alpha values for these DASS-21 subscales.

The investigation of factors associated with anxiety, depression and stress (DASS21) indicated that there was no statistically significant difference, for the Anxiety subscale, in relation to the tested variables (Tables 3 and 4).

For the Depression subscale, it was observed that the variables work shift (p=0.044) (Table 3), age (p=0.002), length of service in the profession (p=0.000) and job satisfaction (p=0.015) (Table 4), were statistically significant.

Table 1 – Sociodemographic and labor characterization of the study participants (n=52). Cascavel, PR, Brazil, 2020

Variables	n (%)	Mean±S.D.	Median	Interval
Gender				
Female	46 (88.5)			
Male	6 (11.5)			
Age (years)		38.38±7.13	39.5	23 a 54
≤ 30	8 (15.4)			
31 to 40	22 (42.3)			
41 to 50	19 (36.5)			
> 50	3 (5.8)			
Marital status				
Married/Consensual union	27 (51.9)			
Single	19 (36.5)			
Divorced	5 (9.6)			
Widower	1 (1.9)			
Children				
Yes	35 (67.3)			
No	17 (32.7)			

Table 1 – Cont.

Variables	n (%)	Mean±S.D.	Median	Interval
Profession				
Nursing assistant	3 (5.8)			
Nursing Technician	37 (71.2)			
Nurse	12 (23.1)			
Employment contract				
SSP- Simplified Selection Process	16 (30.8)			
Public Call	18 (34.6)			
Public Service Examination	18 (34.6)			
Length of service in the profession (years)		12.1±7.46	11	0.25 to 30
Length of service at the institution (years)		5.9±6.6	3	0.2 to 20
Length of service at the unit before the COVID unit		4.2±5.2	1.9	0.2 to 18
Location/unit where worked before the COVID unit (n=50)				
Adult wards	8 (16.0)			
Pediatric ward	4 (8.0)			
Adult ICU	10 (20.0)			
Neonatal and Pediatric ICU	4 (8.0)			
Emergency	4 (8.0)			
SC/OR	6 (11.5)			
SMC	1 (2.0)			
Another area of activity at UH	1 (2.0)			
Did not work at UH	12 (24.0)			
Work shift				
Morning	12 (23.1)			
Afternoon	12 (23.1)			
Night	28 (53.8)			
Weekly workload in the UH		38.4±5.8	36	36-76
36	32 (61.5)			
40	18 (34.6)			
>40	2 (3.8)			

Source: Research data, 2020.
S.D.= Standard Deviation; ICU =Intensive Care Unit; SC= Surgical Center; SMC= Sterilization Material Center; HU= University Hospital; SSP= Simplified Selection Process; WW= Weekly workload

Table 2 – Assessment of the levels of anxiety, depression and stress of the study participants, according to DASS-21 (n=52). Cascavel, PR, Brazil, 2020

	Mean±S.D.	Median	Interval	Cronbach's Alpha
Anxiety	10.4±8.3	9.0	0-32	0.83
Depression	8.8±8.2	8.0	0-34	0.85
Stress	13.9±9.7	14.0	0-34	0.89

Source: Research data, 2020.
S.D.= Standard Deviation

In the Stress subscale, the following variables were statistically significant: employment contract (p=0.017) (Table 3), length of service at the UH (p=0.003), length of service at the unit where worked before the opening of the COVID-19 unit (p=0.049) and job satisfaction (p=0.007) (Table 4).

Table 3 – Comparison of qualitative variables with the levels of anxiety, depression and stress (DASS-21) of the study participants (n=52). Cascavel, PR, Brazil, 2020

Variables	Anxiety			Depression			Stress		
	Y	N	p*	Y	N	p*	Y	N	p*
	n (%)	n (%)		n (%)	n (%)		n (%)	n (%)	
Gender			0.284			0.784			0.208
Female	26 (56.5)	20 (43.5)		18 (39.1)	28 (60.9)		20 (43.5)	26 (56.5)	
Male	2 (33.3)	4 (66.7)		2 (33.3)	4 (66.7)		1 (16.7)	5 (83.3)	
Marital status			0.223			0.354			0.510
Single	9 (47.4)	10 (52.6)		10 (52.6)	9 (47.4)		7 (36.8)	12 (63.2)	
Married/ consensual union	17 (63.0)	10 (37.0)		9 (33.3)	18 (66.7)		13 (48.1)	14 (51.9)	
Divorced	1 (20.0)	4 (80.0)		1 (20.0)	4 (80.0)		1 (20.0)	4 (80.0)	
Widower	1 (100.0)	0		0	1 (100.0)		0	1 (100.0)	
Children			0.274			0.779			0.198
Yes	17 (48.6)	18 (51.4)		13 (37.1)	22 (62.9)		12 (34.3)	23 (65.7)	
No	11 (64.7)	6 (35.3)		7 (41.2)	10 (58.8)		9 (52.9)	8 (47.1)	
Profession			0.703			0.644			0.418
Nursing assistant	1 (33.3)	2 (66.7)		1 (33.3)	2 (66.7)		2 (66.7)	1 (33.3)	
Nursing Technician	21 (56.8)	16 (43.2)		13 (35.1)	24 (64.9)		13 (35.1)	24 (64.9)	
Nurse	6 (50.0)	6 (50.0)		6 (50.0)	6 (50.0)		6 (50.0)	6 (50.0)	
Location/unit in which worked in the UH before the COVID Unit			0.670			0.453			0.402

Table 3 – Cont.

Variables	Anxiety			Depression			Stress		
	Y	N	p*	Y	N	p*	Y	N	p*
	n (%)	n (%)		n (%)	n (%)		n (%)	n (%)	
Adult wards	5 (10.0)	3 (6.0)		2 (4.0)	6 (12.0)		1 (2.0)	7 (14.0)	
Pediatric ward	2 (4.0)	2 (4.0)		2 (4.0)	2 (4.0)		2 (4.0)	2 (4.0)	
Adult ICU	7 (14.0)	3 (6.0)		6 (12.0)	4 (8.0)		6 (12.0)	4 (8.0)	
Neonatal and Pediatric ICU	2 (4.0)	2 (4.0)		1 (2.0)	3 (6.0)		2 (4.0)	2 (4.0)	
Emergency	2 (4.0)	2 (4.0)		2 (4.0)	2 (4.0)		2 (4.0)	2 (4.0)	
SC/OR	2 (4.0)	4 (8.0)		1 (2.0)	5 (10.0)		3 (6.0)	3 (6.0)	
SMC	1 (2.0)	0		1 (2.0)	0		1 (2.0)	0	
Another area of activity at UH	1 (2.0)	0		0	1 (2.0)		1 (2.0)	0	
Did not work at UH	6 (12.0)	6 (12.0)		5 (10.0)	7 (14.0)		3 (6.0)	9 (18.0)	
Work shift			0.240			**0.044**			0.425
Morning	9 (75.0)	3 (25.0)		5 (41.7)	7 (58.3)		6 (50.0)	6 (50.0)	
Afternoon	6 (50.0)	6 (50.0)		8 (66.7)	4 (33.3)		6 (50.0)	6 (50.0)	
Night	13 (46.4)	15 (53.6)		7 (25.0)	21 (75.0)		9 (32.1)	19 (67.9)	
Employment contract			0.565			0.204			**0.017**
SSP	10 (19.2)	6 (11.5)		8 (15.4)	8 (15.4)		5 (9.6)	11 (21.2)	
Public Call	8 (15.4)	10 (19.2)		8 (15.4)	10 (19.2)		4 (7.7)	14 (26.9)	
Public Service Examination	10 (19.2)	8 (15.4)		4 (7.7)	14 (26.9)		12 (23.1)	6 (11.5)	
Weekly workload (in hours)			0.747			0.464			0.477
36	16 (30.8)	16 (30.8)		12 (23.1)	20 (38.5)		13 (25.0)	19 (36.5)	
40	11 (21.2)	7 (13.5)		8 (15.4)	10 (19.2)		8 (15.4)	10 (19.2)	
>40	1 (1.9)	1 (1.9)		0	2 (3.8)		0	2 (3.8)	

Source: Research data, 2020.
Y= Yes; N=No; p= according to the chi-square test; ICU =Intensive Care Unit SC= Surgical Center; SMC= Sterilization Material Center; HU= University Hospital; SSP= Simplified Selection Process; WW= Weekly workload

Among the study participants, 28 (53.8%) showed some level of anxiety, with 13 (25%) of them having moderate levels and 8 (15.4%), very severe. In addition to this, 20 (38.4%) nursing professionals had some degree of depression, of which 9 (17.3%) manifested a mild form, and 6 (11.5%) of them, moderate levels. For the stress subscale, 21 (40.3%) of the participants showed some level of this condition, with 9 (17.3%) indicating moderate levels, followed by another 5 (9.6%), in the mild and severe form, each one of these categories (Chart 1).

Table 4 – Comparison of quantitative variables with the levels of anxiety, depression and stress (DASS-21) of the study participants (n=52). Cascavel, PR, Brazil, 2020

Variables	Anxiety			Depression			Stress		
	Y	N	p*	Y	N	p*	Y	N	p*
	Mean ±S.D.	Mean ±S.D.		Mean ±S.D.	Mean ±S.D.		Mean ±S.D.	Mean ±S.D.	
Age	37.7±7.1	39.2±7.2	0.446	34.7±6.1	40.7±6.8	**0.002**	38.0±7.7	38.7±6.8	0.723
Length of service in the profession (in years)	11.5±7.9	12.8±7.1	0.520	7.4±6.0	15.0±6.9	**0.000**	13.0±7.7	11.4±7.4	0.453
Length of service at UH (in years)	6.4±7.0	5.3±6.1	0.550	4.5±5.8	6.7±6.9	0.229	9.1±7.0	3.7±5.3	**0.003**
Length of service at the unit in which worked before the COVID unit (in years)	3.9±4.9	4.5±5.5	0.673	3.8±4.2	4.4±5.7	0.703	5.9±6.1	3.0±4.1	**0.049**
Weekly workload (in years)	38.0±2.8	38.8±8.1	0.613	37.6±2.0	38.9±7.3	0.449	37.5±2.0	39.0±7.4	0.387
Job satisfaction	7.6±2.1	8.1±1.7	0.331	7.0±2.3	8.3±1.5	**0.015**	7.0±2.3	8.4±1.4	**0.007**

Source: Research data, 2020.
Y= Yes; N=No; p= p-value according to Student's t-test; S.D.= Standard Deviation; WW= Weekly workload; UH= University Hospital

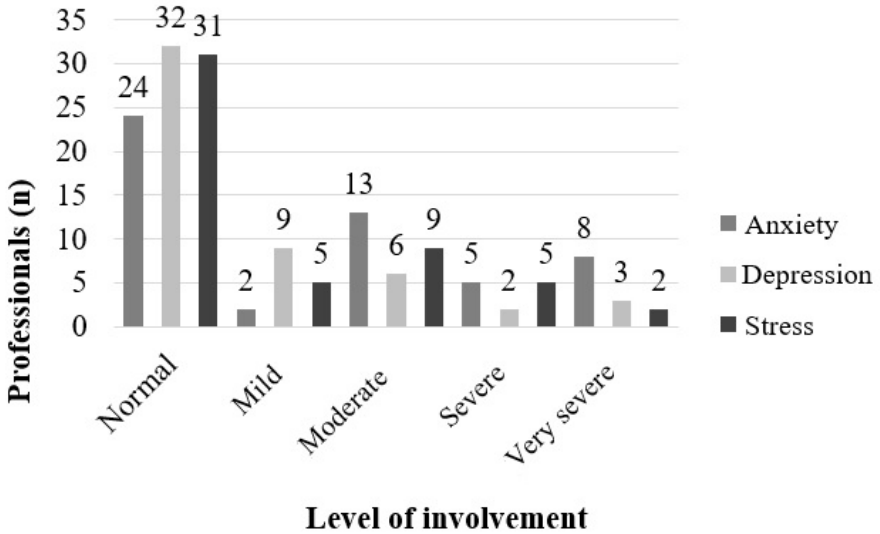

Chart 1 – Categorization of the levels of anxiety, depression and stress (DASS-21) of the study participants (n=52). Cascavel, PR, Brazil, 2020
Source: Research data, 2020.

DISCUSSION

The present study aimed to investigate the levels of anxiety, depression and stress among nursing professionals who work at the frontline of the fight against COVID19. Thus, applying the DASS-21 scale[5], it was found that the highest score was for the stress subscale, followed by the anxiety subscale (Table 2). Authors[9] also found preponderant levels of anxiety among health professionals, during the COVID-19 pandemic, however, the levels of depression were higher than those of stress.

In the present study, despite the predominance of nursing professionals who were assessed at levels considered normal for depression (61.5%) and stress (59.6%), with the exception of anxiety (46.2%), the percentage of cases for these conditions was considerably higher than that presented in a multicenter study in Singapore and India, involving 906 health workers[9]. This showed 15.7% anxiety versus 53.8% of the present study; 10.6% depression versus 38.4% and 5.2% stress versus 40.3%, respectively, for the Chinese survey[9] and the current study. Despite the differences in the percentages of anxiety, depression and stress, it is necessary to highlight that the referenced study also presents considerable methodological differences, in comparison with the work on canvas, especially for its multicentric character and, consequently, for the robust number of professionals included, as well as for including workers involved in the care of patients with COVID-19, but in different categories and not only nursing professionals as delimited in this research.

Italian study[10] that aimed to identify the prevalence and predictors of Burnout and psychological stress (DASS-21) in 330 health professionals presented levels of depression and stress similar to the present study (depression 8.8±8.2 versus 8.0±8.4, from the Italian study; stress 13.9±9.7 versus 13.6±9.6). For the anxiety subscale, the current survey indicated higher levels in relation to the Italian[10], that is, 10.4±8.3 and 6.6±7.2, respectively.

It was possible to notice that the nursing professionals were evaluated less frequently for anxiety, depression and stress, in its severe and very severe form, as in the Chinese study[9], which obtained similar results to these, among health professionals, in general, in which 8.7% of the assessments for anxiety were moderate to extremely severe; 5.3% of the depression were moderate to very severe; and 2.2% of stress, from moderate to extremely severe.

Spanish study that assessed factors destabilizing the mental health of 421 health professionals focused on assisting those affected by COVID-19[11], when compared to the present investigation, presented a predominance of more severe assessments for stress (severe 11.7% and extremely severe 4.5) compared to the current study (severe 9.6% and extremely severe 3.8). In contrast, this study showed more cases of depression (in all categories) and anxiety (moderate and extremely severe), when compared to the other study[11].

The environment of intensive care units and hospital isolation, which require special care not only for the patient, but also for the protection of the professional in the provision of care, is admittedly stressful. International[12] and national[13] studies show the need to offer mental health care to health professionals, as regular updates to face feelings of uncertainty and fear; psychological counseling and psychiatric care, for example.

Work-related stress is a potential cause of concern for health professionals and has been linked to anxiety and depression in the face of the coexistence of countless deaths, long work shifts with the most diverse unknowns and demands in the treatment of patients with COVID-19, which may indicate a process of psychic exhaustion[14]. Such exhaustion of nursing professionals can also generate high rates of absenteeism, with psychiatric medical certificates, the need for psychotropic medications, difficulty sleeping or relaxing, in addition to the risk of suicide. Nursing professionals are not immune to mental health problems.

It was not possible to point out, among the factors investigated, any statistically significant association that explained the levels of anxiety present among the nursing professionals in this study. More than half of the participants (53.8%) registered some level of anxiety due to DASS-21; and when present, it presented itself, predominantly in moderate form (25%) and very severe (15.4%).

Anxiety and depression have been considered as evils of the 21st century, largely influenced by stressful situations, of (self) charging, incapacitating individuals of a highly productive age. Unexpected situations generate emotional imbalances, especially in the face of the originality of the Covid-19 pandemic, in which the fight is fought against an invisible, little-known enemy, which makes it difficult to manage the situation.

Previous studies[15–16] to the pandemic have already pointed out that many of these stressors have always been inherent in the profession, such as long working hours, dealing with pain, loss and emotional suffering, support for families. They also cited other factors, such as staff shortages, increasingly complex patients, corporate financial constraints and the growing need for knowledge of constantly changing technologies. Even more so in times

of pandemic, when all these factors are intensified, since other morbid situations do not stop happening and are associated with the unprecedented.

By inferential analysis, it was found that age (p=0.002), length of service in the profession (p=0.000), job satisfaction (p=0.015) and work shift (p=0.044) were the factors statistically associated to depression (Tables 3 and 4). The average age of participants with some level of depression was 34.7 years, which can be considered young for an age range that ranged from 23 to 54 years, compared to an average of 40.7 years for the group that did not register depression due to the evaluation of DASS-21.

In this sense, the data point out that the youngest had worse assessments for the depression subscale. Still, those less experienced in the profession seem more predisposed to depression. A study[16] indicates that work-related stress is largely contributing to the shortage of professionals in the nursing field, given that stress at work leads to a much higher turnover, especially during the first year after graduation, decreasing the permanence at the service.

Job satisfaction among the studied team was considered high, for 90.5% of the professionals, with a median score of eight, in an allowed interval from zero to 10. However, five (9.9%) professionals indicated scores that varied from one to five for your job satisfaction. In the present study, job satisfaction is one of the factors that positively impacted the best assessment for depression and stress (Table 3).

Evidence confirms that job satisfaction perceived by nursing staff is associated with indicators of well-being of professionals and quality of services provided[17]. This association can represent the degree of empowerment of professionals to act in work situations[17], among others.

It is suggested to expand the concept of job satisfaction to new studies, with the intention of revealing factors of interference in the mental health of the nursing professional. New investigations are necessary to unveil reasons that may have impacted the lives of nursing professionals at the COVID-19 unit, of the afternoon shift, so that depression has developed, considering that 66.7% of those assessed with depression worked in the afternoon.

The stress assessment for study participants is associated with the type of employment contract (p=0.017), length of service at the UH (p=0.003), length of service at the unit in which worked before the opening of the COVID-19 unit (p=0.049) and job satisfaction (p=0.007) (Tables 3 and 4). That said, those with the longest service, whether in the UH or in the unit they worked in before the opening of the COVID-19 unit, had better stress assessments, perhaps because they knew the institution they worked in better, and because they had already experienced similar dramas, with a positive outcome. The stress levels were lower among those with longer time in the unit in which worked (in the UH) before the opening of the COVID-19 unit, since those who formed the so-called COVID-19 team worked, predominantly, in units with a customer service profile of care to patientes severely ill and/or imminent severity or even death. Thus, the previous experience served as a subsidy for better coping with the pandemic situation, even if it is quite uncertain by itself.

Among health professionals, occupational stress factors have always been considered, in view of the requirement for accurate and timely decisions that affect human life on a daily basis.

CONCLUSIONS

It is possible to conclude that the levels of anxiety, depression and stress among the nursing professionals under study were considered predominantly normal, according to Depression, Anxiety, Stress Scales (DASS-21), despite being higher than that of other previous international studies. The highest score was for the stress subscale, followed by the anxiety subscale. More than half of the participants (53.8%) registered some level of anxiety; predominantly in moderate form (25%) and very severe (15.4%). Regardless of the frequency of severity of any of these mental conditions, it is necessary to take a careful look at the team.

Factors associated with depression and stress were identified. In the analysis of anxiety measures, by DASS-21, no statistically significant factors were identified that could explain this event in this sample. Data indicated that the youngest had worse assessments for the depression subscale and that, the less experienced in the profession, seem more predisposed to this condition. Still, job satisfaction was considered high and those with the longest service, either in the UH or in the unit in which they worked before the opening of the COVID-19 unit had better stress assessments.

Factors external to work, personal information and even that transcend materiality, such as the religiosity and spirituality of professionals, could help explain the prevalence of anxiety, depression and stress for the nursing staff under pressure, such as during the period of a pandemic. New studies can be conducted, based on this, in an attempt to explain the impact of anxiety, depression and stress on the lives of nursing professionals who work in an exclusive care unit for people affected by COVID-19.

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