

The psychological impact of the ongoing COVID-19 pandemic on health-care workers in primary health-care centers in resource-poor settings

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ABSTRACT

Background: Health-care workers' psychological status is essential to Preventive control measures in a weak and unstable health system with poor infrastructural constraints. This study examines the psychological impact of the ongoing coronavirus disease 2019 (COVID-19) pandemic on the health-care providers working in primary health-care settings in Sudan. **Materials and Methods:** This is a health facility-based cross-sectional study conducted in primary health-care units in White Nile State, Sudan. The psychological impact of stress and anxiety was determined using the Depression Anxiety Stress Scale 21 (DASS-21). A self-administered questionnaire measured depression, anxiety, and stress. The population of this study included health professionals working in health centers, including physicians, nurses, technicians, pharmacists, and other support staff. **Results:** A total of 167 health professionals were systematically recruited. The mean anxiety score in the study population was 8.26 & 9.0 (corresponding to mild anxiety). Participants without anxiety constituted 26.35% ($n = 44$) of the participants. Women were significantly more likely to be affected than men ($P = 0.0$). Age (21–40 years), female nurses, and other health-care workers (anesthesiology, public health, health education, occupational health, psychiatry, etc.) could be strong predictors of psychological disorders (P -value of 0.0). **Conclusion:** This study provided evidence for primary health care at its preparatory levels, as they are the first line of protection against the COVID-19 pandemic. Addressing the high-risk population is a high priority in the preliminary phase.

Keywords: Anxiety, COVID-19, DASS-21, depression, health-care workers, psychological impact, stress

Introduction

Coronavirus disease 2019 (COVID-19) has a substantial impact on any health-care system in the world. This has been evident in

developing countries such as Sudan, where a high mortality rate of over 7% and a weak infrastructure and fragile health system add to the burden.^[1]

In Sudan, the health authorities attempted to address the pandemic by taking recommended preventive measures to minimize contagion: the World Health Organization (WHO) shelters. The lack of facilities and massive protests during the revolution in Sudan affected control of the pandemic.^[2]

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The health system in Sudan includes primary health centers as the first point of contact for patients and rural hospitals, specialized hospitals, and tertiary hospitals as the final referral points. Sudan is a resource-rich country, but the health system suffers and is impractical, especially during crises such as the COVID-19 pandemic, which identified many vulnerabilities.^[3]

In Sudan, the health services were affected by additional challenges during the COVID-19 pandemic, including multiple economic, security, and social crises. These challenges affected the health system at all levels, and primary health care (PHC), with its limited financial and human resources, was particularly stressed. These situations significantly impacted therapeutic and preventive services, including COVID-19 vaccination.^[4]

Most African countries experienced significant shortages of protective equipment during the COVID-19 pandemic. Limited resources at the PHC level affected universal health coverage and, of course, the performance of medical personnel. As a result, medical personnel are at high risk of contracting severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The alarm was raised early in the pandemic when critical staffing and financial shortages were documented.^[5]

Sudan met this pandemic crisis with a fragile, weak health system, economic problems, and inadequate infrastructure at all health system levels, national and state. This also had a significant impact on PHC.^[6]

Our previous report highlighted the psychosocial burden of patients with chronic diseases treated in primary care settings and the challenges faced by health-care professionals in addressing multiple barriers during the COVID-19 pandemic.^[7]

Because the COVID-19 pandemic has affected many vulnerable populations in many parts of the world,^[8] health-care workers are particularly at risk for psychological disruption^[9] and even impacting health-care quality and coverage,^[10] with particular attention in low-income countries.^[11]

Health-care workers in PHC are at higher risk of stress, anxiety, and psychological disturbances of various levels because they first face an emergency with a severe shortage in resources.^[12,13] Appropriate precautions in health-care facilities are essential for preventing infection, and thus protecting against further infection.^[14,15] This paper about the psychological impact of the ongoing COVID-19 pandemic is highly relevant to the practice of primary care physicians, general primary care providers, and family physicians. As the pandemic continues to affect people's lives in various ways, health-care professionals need to understand its psychological impact on their patients.

The study's findings can add value to the existing evidence by providing a deeper understanding of the challenges faced by health-care workers in such settings. This study can help identify specific areas where additional support and resources are needed

to address the mental health needs of health-care workers. The findings can also inform policy decisions and interventions aimed at improving the well-being of health-care workers, which can ultimately lead to better patient outcomes. Overall, this study can contribute to a more comprehensive and nuanced understanding of the impact of COVID-19 on the health-care systems in resource-poor settings. This study examines the psychological impact of the health-care providers working in primary health-care settings in White Nile State, Sudan, during the ongoing COVID-19 pandemic.

Materials and Methods

Study area: This is a health facility-based cross-sectional study conducted in PHC units in White Nile State, Sudan. The health system mainly builds in PHC as a first point of health care. The second line is the rural hospitals, referred to as specialized hospitals, and further consideration is in the tertiary hospital.

Study design and data collection: This study was conducted in a health-care facility at the PHC level. Data were collected in two categories: 1. sociodemographic characteristics of the study population and 2. the psychological impact of stress and anxiety (using the Depression Anxiety Stress Scale 21 [DASS-21]).^[16] A self-administered questionnaire measured depression, anxiety, and stress.

Study population and sampling: The population of this study included health professionals working in health centers, including physicians, nurses, technicians, pharmacists, and other support staff. A total of 167 health professionals were systematically recruited.

Data analysis: After the data were collected, they were managed in Excel Sheath and imported into Statistical Package for the Social Sciences (SPSS) Master Sheath version 27. Two statistical tests were applied: descriptive statistics and a *t*-test for significance testing.

Ethics: Ethical clearance in accordance with the Declaration of Helsinki and the Institutional Review Board (IRB) was obtained accordingly from Bakht Er-Ruda University, Sudan. Additionally, all participants gave their agreement before the start of the study, thus indicating that the principles of informed consent were followed.

Results

The psychological impact of the COVID-19 pandemic on health-care workers is a challenge for the health-care system, especially in low-resource countries. Health-care workers have been on the frontline of the pandemic and are facing unprecedented levels of stress and burnout. The study found that health-care workers in resource-poor settings are particularly vulnerable to the psychological impact of the pandemic, as they

may lack access to adequate resources and support systems. It is important that we recognize and address these challenges, both for the well-being of health-care workers and for the quality of care they are able to provide to their patients.

The mean anxiety score in the study population was 8.26 & 9.0 (corresponding to mild anxiety). Mild anxiety affected 25.75% ($n = 43$), moderate anxiety 22.2% ($n = 37$), severe anxiety 13.2% ($n = 22$), and very severe anxiety affected 12.6% ($n = 21$) of the study population. Women were significantly more likely to be affected than men ($P = 0.0$). Those reporting moderate depression scored 14.5 & 15.3; normal was 30.5% ($n = 51$) of the total participant group. Mild depression was reported by 22.75% ($n = 38$) of health-care workers, moderate depression by 21.6% ($n = 36$), severe depression by 18.0% ($n = 30$), and very severe depression by 7.2% ($n = 12$). The occurrence of depression was significantly different in women than in men (P -value of 0.00).

The value for moderate stress ranged from 19.3 to 23.06. Of the population studied, 31 individuals (18.6%) reported being normal, 44 individuals (26.3%) reported experiencing mild symptoms, 45 individuals (26.9%) reported moderate symptoms, while 30 individuals (17.96%) and 17 individuals (10.2%) reported severe and very severe symptoms, respectively. A significant difference was observed between genders (P -value of 0.00), with females being more affected. Further details on gender distribution and psychological effects can be found in Table 1.

The study found that age (21–40 years), female nurses, and other health-care workers (anesthesiology, public health, health education, occupational health, psychiatry, etc.) could be strong predictors of psychological disorders (P -value of 0.00). For more details, see Tables 2–5.

Discussion

This study was conducted in a vulnerable health system with limited resources. PHC has suffered dramatically during the current pandemic of COVID-19. A significant limitation is the measurement of confounders and other factors that influence psychological outcomes. The use of the reliable DASS-21 self-report instrument could have an impact on the obtained results.

This study provided significant evidence of the psychological impact of the current COVID-19 pandemic. The recommendations provided can be used to improve the situation of health-care providers in Sudan and low-resource countries with particular attention to PHC.

This study found that women were more likely to experience emotional symptoms and adverse psychological outcomes. These findings are consistent with previous studies showing that women are more prone to psychological problems than men.^[16,17] Women, in general, tend to have less confidence in their social and emotional abilities. Therefore, they are less likely to develop effective coping strategies, leading to poorer adjustment and psychological problems.

The present study suggests that health-care professionals suffer from anxiety during the COVID-19 pandemic; these finding were consisted with study that examined the anxiety, insomnia, and stress among health-care workers.^[18] A recent study reported a prevalence of 28.6% for anxiety specifically among the health professionals in emergency settings.^[19] Thus, a specific support program is essential to address health professionals at risk as anxiety is a risk factor for many psychological disturbances. Primary care physicians are often the first point of contact for

Table 1: Overall prevalence of anxiety, depression, and stress among health workers according to their gender (n=72)

Gender	Anxiety levels					P
	Normal	Mild	Moderate	Severe	Very severe	
Male	<i>n</i> (19) Mean (4.26) SD (1.59)	<i>n</i> (23) Mean (7.96) SD (0.83)	<i>n</i> (15) Mean (12.0) SD (1.0)	<i>n</i> (9) Mean (16.89) SD (1.36)	<i>n</i> (6) Mean (21.33) SD (1.03)	0.001
Female	<i>n</i> (25) Mean (4.08) SD (1.80)	<i>n</i> (20) Mean (8.40) SD (0.50)	<i>n</i> (22) Mean (11.73) SD (1.39)	<i>n</i> (13) Mean (16.62) SD (1.39)	<i>n</i> (15) Mean (21.53) SD (1.3)	0.001
Depression levels						
Male	<i>n</i> (20) Mean (6.20) SD (1.99)	<i>n</i> (17) Mean (11.41) SD (1.06)	<i>n</i> (20) Mean (16.75) SD (1.74)	<i>n</i> (13) Mean (23.31) SD (1.70)	<i>n</i> (2) Mean (28.5) SD (0.71)	0.001
Female	<i>n</i> (31) Mean (5.90) SD (2.43)	<i>n</i> (21) Mean (11.42) SD (1.17)	<i>n</i> (16) Mean (16.94) SD (2.32)	<i>n</i> (17) Mean (23.41) SD (1.87)	<i>n</i> (10) Mean (29.8) SD (1.32)	0.001
Stress levels						
Male	<i>n</i> (12) Mean (9.75) SD (3.17)	<i>n</i> (19) Mean (16.37) SD (1.07)	<i>n</i> (17) Mean (22.06) SD (1.89)	<i>n</i> (16) Mean (29.06) SD (2.08)	<i>n</i> (8) Mean (35.0) SD (1.07)	0.001
Female	<i>n</i> (19) Mean (10.32) SD (2.79)	<i>n</i> (25) Mean (16.44) SD (1.08)	<i>n</i> (28) Mean (22.11) SD (1.87)	<i>n</i> (14) Mean (29.21) SD (2.42)	<i>n</i> (9) Mean (35.78) SD (1.86)	0.001

SD=standard deviation

Table 2: Overall prevalence of anxiety, depression, and stress among health workers according to their age

Age (years)	Anxiety levels					P
	Normal	Mild	Moderate	Severe	Very severe	
21–30	n (21) Mean (4.89) SD (1.30)	n (26) Mean (8.28) SD (0.32)	n (12) Mean (10.59) SD (3.42)	n (6) Mean (16.80) SD (1.12)	n (4) Mean (21.39) SD (0.76)	0.001
31–40	n (19) Mean (4.71) SD (1.23)	n (26) Mean (8.13) SD (0.58)	n (10) Mean (9.63) SD (3.60)	n (3) Mean (11.43) SD (0.60)	n (4) Mean (15.67) SD (1.47)	0.004
41–50	n (10) Mean (5.22) SD (1.16)	n (5) Mean (8.32) SD (0.41)	n (6) Mean (12.03) SD (0.85)	n (2) Mean (16.35) SD (0.64)	n (3) Mean (22.06) SD (1.04)	0.372
>50	n (2) Mean (5.52) SD (0.74)	n (1) Mean (8.03) SD (-)	n (2) Mean (11.26) SD (1.11)	n (2) Mean (16.97) SD (1.32)	n (3) Mean (21.44) SD (1.49)	0.300
Depression levels						
21–30	n (23) Mean (6.15) SD (1.97)	n (30) Mean (11.78) SD (0.82)	n (5) Mean (17.20) SD (1.72)	n (7) Mean (23.14) SD (1.36)	n (4) Mean (30.63) SD (1.35)	0.004
31–40	n (23) Mean (6.45) SD (1.81)	n (26) Mean (11.94) SD (0.74)	n (6) Mean (18.20) SD (1.69)	n (3) Mean (22.43) SD (0.78)	n (4) Mean (31.55) SD (1.95)	0.002
41–50	n (8) Mean (6.85) SD (1.70)	n (5) Mean (12.06) SD (0.91)	n (6) Mean (17.28) SD (1.96)	n (4) Mean (22.99) SD (1.31)	n (3) Mean (32.5) SD (0.60)	0.37
>50	n (3) Mean (6.83) SD (1.74)	n (1) Mean (12.03) SD (-)	n (3) Mean (17.61) SD (1.48)	n (2) Mean (21.76) SD (0.37)	n (1) Mean (29.04) SD (-)	0.297
Stress levels						
21–30	n (19) Mean (8.75) SD (3.83)	n (30) Mean (16.27) SD (2.08)	n (7) Mean (21.86) SD (1.66)	n (7) Mean (29.76) SD (1.87)	n (6) Mean (35.64) SD (0.96)	0.016
31–40	n (19) Mean (9.45) SD (3.21)	n (17) Mean (16.36) SD (0.98)	n (9) Mean (21.70) SD (1.44)	n (7) Mean (29.26) SD (2.28)	n (10) Mean (35.35) SD (0.93)	0.030
41–50	n (5) Mean (12.35) SD (1.37)	n (7) Mean (16.51) SD (0.94)	n (5) Mean (22.32) SD (1.88)	n (5) Mean (30.16) SD (2.72)	n (4) Mean (35.45) SD (0.64)	0.271
>50	n (3) Mean (12.08) SD (1.71)	n (3) Mean (16.78) SD (1.54)	n (2) Mean (21.19) SD (1.25)	n (1) Mean (26.70) SD (-)	n (1) Mean (34.80) SD (-)	0.297

SD=standard deviation

patients seeking medical attention. They are responsible for providing comprehensive care that includes addressing physical and mental health concerns. With the ongoing pandemic, primary care physicians must be aware of the psychological impact it has on their patients. Patients may experience anxiety, depression, and other mental health issues due to isolation, fear of contracting the virus, financial stressors, and other pandemic-related factors.

This study showed that 30.54% of the population suffered from depression and 7.1% were severely depressed. These results contradict the results of Chen, Yahaya, *et al.*^[20] in China, who reported several risk factors for depression and anxiety in medical staff during the COVID-19 pandemic and showed that most staff (89%) had mild depression. However, Spoorthy *et al.* reported that 30.50% of medical staff were depressed because of the COVID-19 pandemic.^[22] Considering vulnerable groups, such as those defined by mean age, gender,

and inadequate psychosocial support, which have been found to be associated with depression and anxiety in health workers, can be an important step towards supporting them. In such situations, we recommend continuous professional development and psychological support during the stressful period of the current pandemic.

This study found that age is a good predictor of mental disorders. Older or middle-aged people are at higher risk. Similar results are found in the report prepared by the Epidemiology Team of China in 2020.^[21-24] This is because the disease is more dangerous for older people.

This study found that participants had higher stress and anxiety levels, particularly health-care workers in government hospitals, especially nurses. Health-care workers, especially nurses, had the highest stress levels because of their close contact with patients

Table 3: Overall prevalence of anxiety among health workers according to their gender and occupations

Anxiety levels	Gender	Occupation status					P
		Physician	Nurse	Technical staff	Pharmacy	Other	
Normal	Male	n (3) Mean (4.33) SD (2.08)	n (7) Mean (4.29) SD (1.6)	n (3) Mean (3.67) SD (1.53)	n (2) Mean (4.5) SD (0.71)	n (4) Mean (5.0) SD (1.83)	0.083
	Female	n (7) Mean (3.43) SD (2.23)	n (9) Mean (4.33) SD (2.00)	n (2) Mean (4.5) SD (0.707)	n (2) Mean (2.5) SD (0.71)	n (5) Mean (4.0) SD (2.55)	0.0899
Mild	Male	n (3) Mean (8.67) SD (0.58)	n (15) Mean (8.4) SD (0.51)	n (2) Mean (9.0) SD (0.00)	n (1) Mean (8.0) SD (-)	n (2) Mean (8.5) SD (0.71)	0.084
	Female	n (5) Mean (8.40) SD (0.55)	n (11) Mean (8.55) SD (0.52)	n (1) Mean (8.0) SD (-)	n (1) Mean (9.0) SD (-)	n (2) Mean (8.0) SD (0.00)	0.0655
Moderate	Male	n (4) Mean (12.0) SD (1.83)	n (7) Mean (12.0) SD (1.41)	n (1) Mean (12.0) SD (-)	(-)	n (4) Mean (10.75) SD (0.96)	0.093
	Female	n (2) Mean (11.50) SD (0.07)	n (15) Mean (11.93) SD (1.33)	n (1) Mean (12.0) SD (-)	n (1) Mean (10.0) SD (-)	n (3) Mean (12.0) SD (1.00)	0.036
Severe	Male	n (2) Mean (16.5) SD (2.12)	n (3) Mean (16.33) SD (1.16)	n (2) Mean (17.5) SD (2.12)	n (1) Mean (16.0) SD (-)	n (1) Mean (18.0) SD (-)	0.098
	Female	n (1) Mean (16.0) SD (-)	n (8) Mean (16.75) SD (1.39)	n (1) Mean (16.0) SD (-)	n (1) Mean (15.0) SD (-)	n (2) Mean (18.0) SD (1.41)	0.074
Very severe	Male	n (1) Mean (21.0) SD (-)	n (3) Mean (21.33) SD (1.53)	n (1) Mean (22.0) SD (-)	n (1) Mean (23.0) SD (-)	(-)	0.088
	Female	n (2) Mean (20.5) SD (0.71)	n (8) Mean (22.13) SD (1.55)	n (1) Mean (23.0) SD (-)	n (1) Mean (22.0) SD (-)	n (3) Mean (21) SD (1.00)	0.074

SD=standard deviation

during the pandemic. This finding is consistent with a study from China in which Lai *et al.*^[25] found that health professionals were psychologically impaired, especially those working and living in areas of high population density. Based on our assessment of the availability of personal protective equipment and prevention measures. PHC centers that are well-prepared for pandemics are likely to experience less stress and may achieve better performance and outcomes.

Understanding the psychological impact of COVID-19 is essential for all health-care professionals, including primary care physicians, general primary care providers, and family physicians. By recognizing and addressing their patient's mental health concerns during this challenging time, they can provide comprehensive care that addresses both physical and mental well-being.

The key take-home message from this manuscript is that it is highly relevant to primary care physicians, including general primary care providers and family physicians. Therefore, it is important for primary care physicians to be aware of the potential psychological impact of COVID-19 and to be equipped with appropriate tools and resources to address these issues in their patients.

Conclusion

This study preparatory levels, as they are the first line of protection against COVID-19. Addressing the high-risk population is a high priority in the preliminary phase. Women, the elderly, and health-care workers in state hospitals, especially nurses, are at increased risk of developing anxiety, stress, and depression and are more likely to suffer from emotional symptoms and adverse psychological outcomes. We recommend further research to examine the psychological issues associated with the COVID-19 pandemic in primary health-care settings in Sudan and low-resource countries to ensure psychological preparedness for any future situation.

Limitations: The study about the psychological impact of the ongoing COVID-19 pandemic on health-care workers in primary health-care centers in resource-poor settings may have some limitations. One limitation could be the sample size, as it may only represent some health-care workers in such settings. Additionally, the study may not have considered other factors that could contribute to the psychological impact on health-care workers, such as preexisting mental health conditions or personal circumstances. Furthermore, the study may not have accounted for cultural differences and how they could affect the

Table 4: Overall prevalence of depression among health workers according to their gender and occupations

Depression levels	Gender	Occupation status					P
		Physician	Nurse	Technical staff	Pharmacy	Other	
Normal	Male	n (4) Mean (5.75) SD (2.99)	n (10) Mean (5.40) SD (2.22)	n (3) Mean (6.33) SD (1.53)	n (1) Mean (7.0) SD (-)	n (2) Mean (6.5) SD (2.12)	0.093
	Female	n (6) Mean (6.33) SD (2.16)	n (16) Mean (5.5) SD (2.00)	n (1) Mean (7.0) SD (-)	n (2) Mean (7.0) SD (2.12)	n (6) Mean (5.0) SD (2.61)	
Mild	Male	n (3) Mean (12.0) SD (1.00)	n (6) Mean (11.17) SD (1.17)	n (3) Mean (11.67) SD (0.58)	n (2) Mean (11.5) SD (2.12)	n (3) Mean (10.67) SD (1.16)	0.089
	Female	n (6) Mean (11.50) SD (1.05)	n (8) Mean (11.38) SD (1.30)	n (2) Mean (11.50) SD (0.71)	n (1) Mean (10.0) SD (-)	n (4) Mean (11.50) SD (1.29)	
Moderate	Male	n (3) Mean (16.33) SD (2.52)	n (11) Mean (17.0) SD (1.84)	n (1) Mean (15.0) SD (-)	n (1) Mean (18.0) SD (-)	n (4) Mean (16.5) SD (2.65)	0.095
	Female	n (3) Mean (15.33) SD (1.53)	n (10) Mean (16.60) SD (1.897)	n (1) Mean (17.0) SD (-)	n (1) Mean (18.0) SD (-)	n (1) Mean (15.0) SD (-)	
Severe	Male	n (2) Mean (22.5) SD (2.12)	n (7) Mean (24.0) SD (2.16)	n (1) Mean (23.0) SD (-)	n (1) Mean (22.0) SD (-)	n (2) Mean (23.5) SD (3.54)	0.0957
	Female	n (1) Mean (21.0) SD (-)	n (12) Mean (30.5) SD (1.83)	n (1) Mean (26.0) SD (-)	n (1) Mean (24.0) SD (-)	n (2) Mean (22.5) SD (2.12)	
Very severe	Male	n (1) Mean (28.0) SD (-)	(-)	n (1) Mean (32.0) SD (-)	(-)	(-)	0.100
	Female	n (1) Mean (29.0) SD (-)	n (5) Mean (30.0) SD (1.58)	n (1) Mean (31.0) SD (-)	n (1) Mean (30.0) SD (-)	n (2) Mean (28.5) SD (2.12)	

SD=standard deviation

Table 5: Overall prevalence of stress among health workers according to their gender and occupations

Stress levels	Gender	Occupation status					P
		Physician	Nurse	Technical staff	Pharmacy	Other	
Normal	Male	n (3) Mean (9.33) SD (2.52)	n (3) Mean (9.33) SD (1.53)	n (1) Mean (12.0) SD (-)	n (1) Mean (11.0) SD (-)	n (4) Mean (8.5) SD (3.42)	0.092
	Female	n (5) Mean (8.2) SD (5.26)	n (7) Mean (7.43) SD (3.46)	n (1) Mean (11.0) SD (-)	n (1) Mean (13.0) SD (-)	n (5) Mean (9.20) SD (3.194)	
Mild	Male	n (5) Mean (16.6) SD (1.14)	n (7) Mean (16.14) SD (1.07)	n (3) Mean (16.67) SD (1.53)	n (1) Mean (16.0) SD (-)	n (2) Mean (16.5) SD (2.12)	0.097
	Female	n (6) Mean (16.50) SD (1.05)	n (9) Mean (16.33) SD (1.22)	n (2) Mean (15.50) SD (0.71)	n (2) Mean (18.0) SD (1.41)	n (6) Mean (16.17) SD (1.17)	
Moderate	Male	n (4) Mean (21.0) SD (2.16)	n (10) Mean (22.9) SD (1.37)	n (1) Mean (21.0) SD (-)	n (1) Mean (23.0) SD (-)	n (1) Mean (22.0) SD (-)	0.0567
	Female	n (3) Mean (21.33) SD (3.21)	n (22) Mean (21.91) SD (1.57)	(-)	n (1) Mean (23.0) SD (-)	n (2) Mean (22.5) SD (2.12)	
Severe	Male	n (1) Mean (27.0) SD (-)	n (9) Mean (28.67) SD (2.00)	n (2) Mean (28.5) SD (3.54)	n (1) Mean (27.0) SD (-)	n (3) Mean (28.33) SD (4.16)	0.0471
	Female	n (2) Mean (27.5) SD (0.71)	n (10) Mean (29.8) SD (2.57)	n (1) Mean (31.0) SD (-)	(-)	n (1) Mean (29.0) SD (-)	

Contd...

Table 5: Contd...

Stress levels	Gender	Occupation status					P
		Physician	Nurse	Technical staff	Pharmacy	Other	
Very severe	Male	(-)	n (5) Mean (35.40) SD (1.67)	n (1) Mean (35.0) SD (-)	n (1) Mean (37.0) SD (-)	n (1) Mean (34.0) SD (-)	0.0737
	Female	n (2) Mean (35.5) SD (0.707)	n (2) Mean (35.0) SD (1.41)	n (2) Mean (36.0) SD (1.41)	n (2) Mean (37.0) SD (1.41)	n (1) Mean (38.0) SD (-)	0.0801

SD=standard deviation

psychological impact of the pandemic on health-care workers. These limitations should be considered when interpreting and applying the findings of this study.

Author contributions

The authors made significant contributions to the study, including conceptualizing the research, collecting and analyzing the data, interpreting the results, drafting and editing the manuscript, and critically revising the content.

Abbreviation

COVID-19, coronavirus disease; HCWs, health-care workers; PHC, primary health-care centers

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Conflicts of interest

There are no conflicts of interest.

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