

Healthcare professionals' perspective on psychosocial support: Lessons learned during a pandemic

Ghadeer M. Jan¹, Sajida Agha², Shaden Alharbi¹, Sara Aldihan¹,
Deema Alghufaili¹, Ayah Farghal¹, Teaf Alzahrani¹

¹Department of College of Medicine, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia, King Abdullah International Medical Research Center, Riyadh, Saudi Arabia, ²Department of Medical Education, College of Medicine, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia

ABSTRACT

Purpose/Background: Assessing the level of psychosocial assistance provided for healthcare workers (HCWs) at and outside of work is crucial. This study aimed to evaluate the psychosocial support provided to HCWs and analyze its effectiveness during COVID-19 at one of the biggest hospitals in Saudi Arabia, King Abdulaziz Medical City, Riyadh. In this study, we hypothesized that psychosocial support for HCWs will enhance their performance and total welfare. **Methods:** This study followed a cross-sectional analytic design, and its sample comprised 380 HCWs from many specialties. Two well-known psychosocial scales, DASS-21 and MSPSS, were used to assess the availability of institutional psychosocial support and the levels of depression, anxiety, and stress among HCWs. **Results:** The majority of HCWs reported a tremendous increase in working hours and level of anxiety during COVID-19, and they denied receiving institutional support at work. Moreover, the majority reported receiving support from family and friends. Primarily, the most statistically significant finding in this study was that female HCWs had much higher levels of stress and anxiety during COVID-19 than their equivalent male colleagues. In addition, a significant difference was found regarding the presence of immediate supervisors for HCWs and its effectiveness in burden relief. **Conclusions:** The results show a marginally significant association between psychosocial support and the mental health of HCWs during COVID-19. However, we found a slightly favorable effect on the minority of HCWs who received regular check-ins or targeted interventions or had immediate supervisors.

Keywords: Anxiety, COVID-19, depression, Health Care Workers (HCWs), psychological support, psychosocial support, Stress, support during COVID

Introduction

The infectious respiratory and vascular coronavirus disease 19 (COVID-19) was discovered in Wuhan, China, and announced as a pandemic by the World Health Organization (WHO) on March 11, 2020.^[1,2] The first case was identified in Saudi Arabia on March

2, 2020. Soon after, rapidly rising numbers of confirmed cases and mortalities were observed throughout the Kingdom.^[3] Since then, the disease has evolved quickly and significantly impacted human civilization.^[4]

A pandemic like COVID-19 puts high stress on all people, but specifically on healthcare workers (HCWs). HCWs were at the front line of COVID-19 to provide the best medical care for infected patients. A study done in Saudi Arabia indicated that HCWs exhibited high stress levels because of COVID-19, which impacted their mental health.^[5] HCWs endured significant mental burdens while handling COVID-19 patients due to the

Address for correspondence: Dr. Ghadeer M. Jan, Department of College of Medicine, King Saud Bin Abdulaziz University for Health Sciences, King Abdullah International Medical Research Center, Riyadh, Saudi Arabia. E-mail: ghadeer-jan1995@hotmail.com

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fear of getting the infection or transmitting it to their beloveds, and they were prone to psychological stress, sadness, anxiety, and insomnia because of their job requirements.^[6] Prolonged exposure to such strains can cause diminished energy, burnout, medical errors, low-quality medical care, and decreased quality of life. Therefore, it is crucial to acknowledge HCWs' emotions and fears and their short- and long-term consequences and to provide the best support.^[7] Creating programs that assist the mental health of HCWs is essential, and all public health crisis management plans should include techniques for providing emotional and psychological support.^[5]

Furthermore, structural defects in the workplace, such as lack of resources or medical equipment and failure to offer emotional support, can also result in long-term negative psychosocial consequences on HCWs. A study conducted in the United Arab Emirates revealed that the availability of efficient medical equipment, psychiatric programs, and supportive colleagues and organizations had decreased psychological burdens and improved the performance of HCWs.^[8] Another study conducted in Saudi Arabia about HCWs' emotions, perceived stressors, and coping strategies during the MERS-COV outbreak presented several techniques in which hospitals can foster HCWs' mental health.^[9] These techniques included providing HCWs with the necessary protective medical equipment, spreading positive behavior at work, and enforcing appreciation and support by hospital management.^[9]

In response to COVID-19, Saudi Arabia ensured the availability and sustainability of medications, equipment, financial aid, and electronic support.^[10] In addition, many organizations released guidance on how HCWs can manage the mental burdens of COVID-19. However, those recommendations, which focused on specific HCWs (e.g., nurses and psychologists), were not evidence-based and did not situate guidance within a phased model that recognizes countries at different stages of the pandemic.^[11]

The availability of assistance programs for HCWs in Saudi Arabia during COVID-19 is unknown.^[10] Therefore, this research assessed the availability of psychosocial support programs for HCWs and the effect of these programs on HCWs' performance, mental health, and well-being at one of the biggest hospitals in Saudi Arabia. In addition, this research assessed the availability of family and friends support for HCWs.

Materials and Methods

Demographic characteristics

The survey was completed by 202 female and 147 male HCWs [Table 1]. The study included HCWs of different ages and nationalities, and a significant percentage of participants, 63%, were Saudi. Out of the 380 who participated in this study, 31 were excluded because they did not work during the pandemic [Table 1].

Table 1: Demographics of the study subjects and Working hours of HCWs before and during the COVID-19 pandemic

Baseline characteristics	n	%
Age (years)		
21–30	155	44.4
31–40	124	35.5
41–50	46	13.2
51+	24	6.9
Marital status		
Unmarried	167	47.9
Married	182	52.1
Gender		
Male	147	42.1
Female	202	57.9
What is your professional title?		
Consultant	48	13.8
Assistant consultant	26	7.4
General Physician	24	6.9
Resident	80	22.9
Nurse	139	39.8
Technician	16	4.6
Others	16	4.6
Nationality		
Saudi	220	63.0
Non-Saudi	129	37.0
Have you worked during COVID-19		
No	13	3.7
Yes	336	96.3
In which departments did you mainly work during COVID-19?		
Cardiology	37	10.6
Pediatrics	45	12.9
Gynecology	9	2.6
Medicine	96	27.6
Surgery	30	8.6
ICU	24	6.9
ER	44	12.6
OPD	6	1.7
COVID clinic	4	1.1
Family medicine	5	1.4
Radiology	16	4.6
Others	32	9.2
What is your qualification (s)?		
Saudi board	227	65.2
Bachelors	83	23.9
MRCP/MRCOG	6	1.7
Post-graduate	10	2.9
American Board	18	5.2
Canadian board		
Australian board		
Diploma	4	1.1
How many hours per week have you worked before COVID-19?		
≤20	36	10.3
21–39	31	8.9
40	64	18.3
41–50	163	46.7

Contd...

Table 1: Contd...

Baseline characteristics	n	%	
51+	55	15.8	
How many hours (per week) have you worked during COVID-19?			
≤20	42	12.5	
21–39	34	10.1	
40	50	14.9	
41–50	113	33.7	
51+	96	28.7	
Working hours of healthcare workers before and during COVID-19			
Working hours	n	Mean±SD	P
How many hours (per week) have you worked before COVID-19?	320	45.8+10.19	0.001
How many hours (per week) have you worked during COVID-19?	320	48.4+14.80	

Study site, design, and sampling

This study was conducted at King Abdulaziz Medical City (KAMC), National Guard Health Affairs, Riyadh, Saudi Arabia, from November 2021 until April 2022. KAMC was inaugurated in May 1983 with a capacity of 1501 beds. Psychosocial effects on HCWs from different specialties were measured using MSPSS and DASS-21 scales.

The study was a cross-sectional analytic study with 349 HCWs, including consultants, residents, nurses, technicians, and public health professionals from many departments. However, most of the participant HCWs were from the internal medicine department. Using the Raosoft website, the response distribution on social support and well-being was estimated to be 50%, with a confidence level of 95% and a margin of error of 5%. The Raosoft website also calculated the estimated sample size to be 377 HCWs. A non-probability convenience sampling technique was used, and most of the currently employed HCWs at KAMC, Riyadh, were invited electronically and in person.

Primary data were collected using a Google survey. The survey was divided into two sections. The first section contained an agreement consent and primary demographic data such as age, marital status, gender, professional title, and nationality. The second section contained two well-known self-administered questionnaires: (1) MSPSS, used to assess perceived social support; and (2) DASS-21, which consists of three dimensions: depression, anxiety, and stress. Each dimension of these evaluates seven items. The depression dimension evaluates self-deprecation, hopelessness, dysphoria, anhedonia, lack of involvement, devaluation of life, and inertia. The anxiety dimension evaluates skeletal muscle effects, subjective experience of anxious affect, situational anxiety, and autonomic arousal. The stress dimension measures levels of long-term non-specific arousal, which evaluates nervous arousal, being easily agitated, irritability, over-reactiveness, impatience, difficulty relaxing, and stress. Participants rated each item from 0 (did not apply) to 3 (very much applied).

Inclusion and exclusion criteria

All participant HCWs who worked during the COVID-19 pandemic were included in this study regardless of the number of hours they worked. HCWs who did not work during the pandemic and HCWs who clicked disagree upon the consent at the beginning of the study were excluded.

Statistical analysis

Descriptive statistical analysis followed quantitative data collection. All quantitative data analysis was performed using Statistical Product and Service Solutions (SPSS) version 25.0 developed by IBM Corp, Armonk, New York, NY, USA. Descriptive statistics were presented as frequency and percentages for the categorical variables and as mean \pm standard deviations for the numerical variables. Independent sample *t*-tests were used to compare the mean scores of each MSPSS domain. Moreover, tests were declared significant if *P* values were less than 0.05.

Ethics

This study was approved by the institution's institutional review board (protocol#: IRBC/0969/21). An informed consent obtained from King Abdullah International Medical Research Center (KAIMRC) was presented to all participants at the beginning of the survey. Confidentiality of the collected information was assured.

Results

When analyzing and comparing average working hours before and after the pandemic, a significant increase in the average working hours was found ($P = 0.001$). The average working hours before COVID-19 were 45.8 hours \pm 10.19 SD, while it increased during the pandemic to 48.4 hours \pm 14.80 SD [Table 1].

DASS-21 analysis

When different specialties were compared regarding levels of depression, anxiety, and stress, slight differences were found, but they were not significant [Table 2].

To explain, assistant consultants and residents had slightly higher levels of (moderate/severe) depression, while technicians, residents, and nurses had somewhat higher levels of (moderate/severe) anxiety and stress [Table 2]. On the contrary, when comparing male and female HCWs for (mild levels), both genders reported depression, anxiety, and stress with no significant difference. Nevertheless, when assessing the (moderate to extremely severe) levels among the two genders, females reported statistically significant higher levels of anxiety ($P = 0.033$) and stress ($P = 0.005$) [Graph 1].

Second, the presence of immediate supervisors and its effects on HCWs were also assessed. Among the 349 HCWs in this study, 83.4% had immediate supervisors, and 63.3% received mental awareness support [Table 3]. However, more than half of HCWs reported not receiving regular check-ins, self-care mechanisms, or targeted interventions from their institution [Table 3].

Table 2: Overall and gender-wise psychosocial impact of the COVID-19 pandemic on healthcare workers

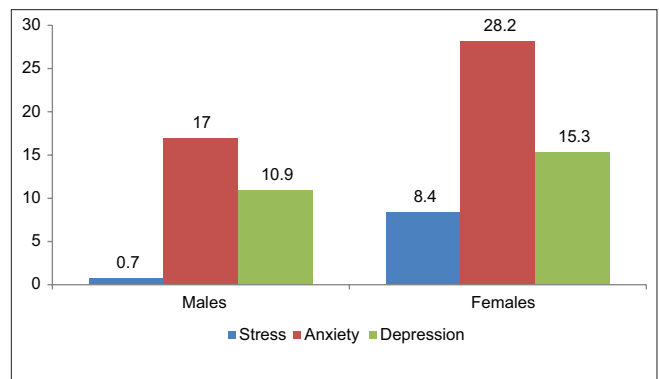
Psychosocial Factor	Professional Title	Normal		Mild		Moderate/severe/extremely severe		P
		n	%	n	%	n	%	
Depression	Consultant	40	83.3	3	6.3	5	10.4	0.09
	Assistant consultant	17	65.4	4	15.4	5	19.2	
	General Physician	22	91.7	2	8.3	0	0.0	
	Resident	52	65.0	13	16.3	15	18.8	
	Nurse	107	77.0	14	10.1	18	12.9	
	Technician	10	62.5	5	31.3	1	6.3	
	Others	11	68.8	2	12.5	3	18.8	
Anxiety	Consultant	38	79.2	3	6.3	7	14.6	0.06
	Assistant consultant	21	80.8	2	7.7	3	11.5	
	General Physician	20	83.3	1	4.2	3	12.5	
	Resident	45	56.3	14	17.5	21	26.3	
	Nurse	91	65.5	12	8.6	36	25.9	
	Technician	7	43.8	3	18.8	6	37.5	
	Others	9	56.3	1	6.3	6	37.5	
Stress	Consultant	42	87.5	5	10.4	1	2.1	0.456
	Assistant consultant	24	92.3	1	3.8	1	3.8	
	General Physician	23	95.8	1	4.2	0	0.0	
	Resident	67	83.8	7	8.8	6	7.5	
	Nurse	124	89.2	7	5.0	8	5.8	
	Technician	14	87.5	0	0.0	2	12.5	
	Others	13	81.3	3	18.8	0	0.0	
Gender wise comparison								
Depression	Male	112	76.2	19	12.9	16	10.9	0.48
	Female	147	72.8	24	11.9	31	15.3	
Anxiety	Male	103	70.1	19	12.9	25	17.0	0.03
	Female	128	63.4	17	8.4	57	28.2	
Stress	Male	135	91.8	11	7.5	1	0.7	0.005
	Female	172	85.1	13	6.4	17	8.4	

Furthermore, the availability of immediate supervisors for both genders was analyzed and compared using a Chi-square test, and the result was insignificant [Table 4]. However, when the availability of immediate supervisors was compared among different professional subgroups using Fisher’s exact test, a significant difference was observed ($P = 0.024$). Among the HCWs surveyed, 91.7% of general physicians had immediate supervisors, while only 68.8% of consultants had immediate supervisors during the pandemic [Table 4].

The effect of institutional regular check-ins was studied and compared among both genders. A significant difference in responses between males and females was found ($P = 0.045$); 34.8% of males reported (very good), while only 17.3% of females reported (very good) effects [Table 5, Graph 2]. Not to mention, significantly more assistant consultants and general physicians reported higher levels of efficacy of regular check-ins than residents and consultants, who reported the lowest levels of efficacy ($P 0.049$) [Table 5 and Graph 2].

MSPSS analysis

When comparing the perceived social support, most of the HCWs received family and friends support, with a mean of 5.62 ± 1.46 SD, and they reported that such support was



Graph 1: Gender-wise psychosocial impact of COVID-19 on HCWs

critical and helpful in enhancing their mental status during COVID-19 [Table 6].

Discussion

Our research sought to determine the availability of institutional and social support for HCWs and the efficacy of such support in promoting the mental health of HCWs. The currently available literature indicates that working in proximity to COVID-19 patients increased the levels of stress, anxiety, and

Table 3: Responses on available institutional support and its impact on healthcare providers during the COVID-19 pandemic

Institutional support	Response	n	%
I have an immediate supervisor.	No	58	16.6
	Yes	291	83.4
	Not sure	0	0.0
My institution is raising awareness of mental health in general.	No	128	36.7
	Yes	221	63.3
	Not sure	0	0.0
The impact of raising awareness of mental health on healthcare workers:	Not helpful	09	2.6
	Somewhat helpful	122	35.0
	Very helpful	148	42.4
	Never used before	70	20.1
There are regular check-ins to see how staff are doing	No	194	55.6
	Yes	155	44.4
	Not sure	0	0.0
Effect of regular check-ins on healthcare workers	Poor	27	13.4
	Fair	47	23.3
	Good	81	40.1
	Very good	47	23.3
	Not sure	0	0.0
Institution/department provided self-care mechanisms such as mobile apps, mindfulness techniques, and lifestyle changes.	No	214	61.3
	Yes	130	37.2
	Not sure	05	1.4
The impact of self-care mechanism on healthcare workers:	Not helpful	01	0.4
	Somewhat helpful	81	30.3
	Very helpful	99	37.1
	Never used before	86	32.2
The institution provides targeted interventions in-house or by effective signposting when issues like burnout, stress, or resilience are a problem	No	196	56.2
	Yes	140	40.1
	Not sure	13	3.7
Effect of targeted interventions on healthcare workers	Poor	20	10.8
	Fair	63	34.1
	Good	73	39.5
	Very good	29	15.7
	Not sure	0	0.0

Table 4: Association between baseline characteristics and availability of immediate supervisor

Baseline characteristics	The presence of an immediate supervisor				P
	Yes		No		
	n	%	n	%	
Gender					
Male	119	81.0	28	19.0	0.29
Female	172	85.1	30	14.9	
Professional title					
Consultant	33	68.8	15	31.3	0.02
Assistant consultant	18	69.2	8	30.8	
General Physician	22	91.7	2	8.3	
Resident	67	83.8	13	16.3	
Nurse	123	88.5	16	11.5	
Technician	14	87.5	2	12.5	
Others	14	87.5	2	12.5	

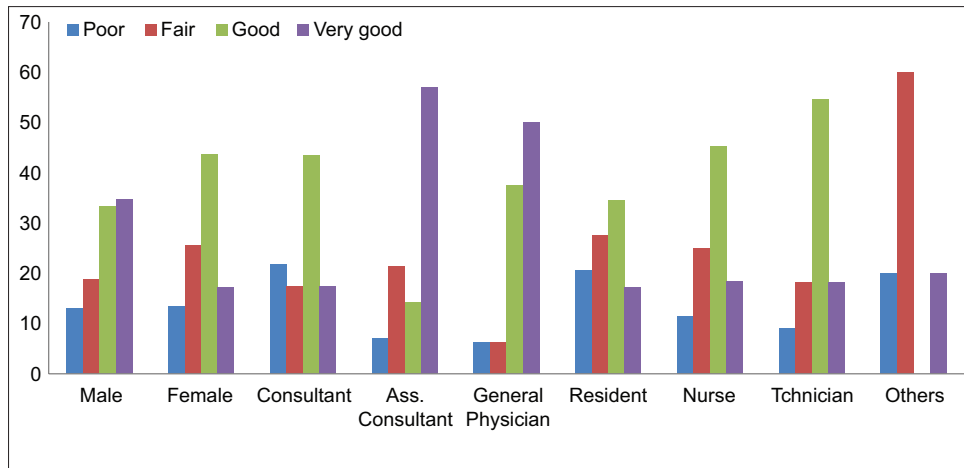
depression in almost all HCWs during COVID-19.^[12-14] A recent study conducted in Egypt demonstrated that COVID-19 has

been linked to anxiety and depression in medical professionals, particularly pharmacists and doctors.^[15] Such mental stressors can result in long-term adverse psychological effects and will decrease the quality of medical care provided by HCWs.

The majority of the HCWs who participated in this study denied receiving institutional support; however, the minority who received institutional support implied that it was beneficial. The availability of institutional support was determined by asking about regular institutional check-ins, providing self-care tools, and tailored interventions. A study highlighted the critical risks of junior HCWs being more stressed and burned out because of less provision of materials and equipment and long working hours.^[16] Furthermore, a recent study conducted in Saudi Arabia concluded that psychological disorders were common among HCWs in the emergency room and intensive care unit, and they were independently associated with male gender, working in the emergency room, and receiving insufficient psychological support from healthcare providers.^[17] Another study done in Paris implemented a psychological support system, Covid-Psy hotline, for all HCWs in Paris hospitals during COVID-19. They received many calls, mainly from female frontline HCWs who were complaining of anxiety, exhaustion, trauma reactivation, insomnia, anger, depression, and psychotic symptoms. More than half were referred to psychosocial support, and the study emphasized the importance of the hotline and supporting HCWs.^[18]

When comparing among genders, females showed higher scores of anxiety and stress. This finding is supported by a study titled “Psychosocial Impact of the COVID-19 Pandemic on Pediatric HCWs,” which supports our finding by proving that frontline HCWs, specifically female nurses, were more susceptible to unfortunate psychological outcomes during COVID-19.^[13]

Another Italian study found higher levels of burnout among female HCWs.^[19] Historically, females have carried a higher burden than males regarding family role expectations. In a study from Saudi Arabia, almost half of the participating female doctors expressed that they could not attain a sufficient balance between career and family and that work harmed their family relationships.^[14] Another piece of evidence for this notion comes from a psychiatric study conducted in Spain in 2021, which found that female HCWs were subjected to heavier home obligations and more caregiving expectations.^[20] Hence, we hypothesized that women in the healthcare setting had more trouble balancing work and family obligations than men. Furthermore, our speculation was the asymmetric distribution of females across healthcare occupations, leading to an occurrence in medicine called occupational segregation. According to a WHO study, this tendency is most pronounced among women who work in specialized fields such as nursing and nursing assistantships, where the virus was more prevalent during the pandemic.^[21] Another recent study demonstrated that a distinct set of work-life pressures brought by COVID-19 increased the prevalence of adverse mental health outcomes



Graph 2: Association between baseline characteristics and the impact of regular check-ins

Table 5: Association between baseline characteristics and the impact of regular check-in results

Baseline characteristics	Effect of regular check-ins on healthcare workers								P	
	Poor		Fair		Good		Very good			
	n	%	n	%	n	%	n	%		
Gender										
Male	9	13.0	13	18.8	23	33.3	24	34.8	0.05	
Female	18	13.5	34	25.6	58	43.6	23	17.3		
Professional title										
Consultant	5	21.7	4	17.4	10	43.5	4	17.4	0.05	
Ass. consultant	1	7.1	3	21.4	2	14.3	8	57.1		
General Physician	1	6.3	1	6.3	6	37.5	8	50.0		
Resident	6	20.7	8	27.6	10	34.5	5	17.2		
Nurse	12	11.5	26	25.0	47	45.2	19	18.3		
Technician	1	9.1	2	18.2	6	54.5	2	18.2		
Others	1	20.0	3	60.0	0	0.0	1	20.0		

Table 6: Descriptive statistics of the Multidimensional Scale of Perceived Social Support (MSPSS)

Social support	n	Mean	SD
Overall support	349	5.31	1.33
Significant support	349	5.08	1.58
Family support	349	5.62	1.46
Friends support	349	5.25	1.52

for HCWs, particularly women, nurses, and those who directly assist COVID-19 patients.^[22]

There is extensive literature available on the well-established relationship between family support and the alleviation of deteriorating mental symptoms. According to this study's findings, most HCWs received support from family and friends, a significant protective factor for HCWs against stressors during COVID-19. This is mainly because family and friends provide comfort, emotional support, and assistance with decision-making. This result is supported by a study done in Turkey, which proves that family support helps people tackle multiple subscales

of burnout and hopelessness.^[23] Another study that assessed levels of hopelessness and depression among Mexican-heritage mothers proved that receiving family support was an important protective factor against hopelessness.^[24] Similarly, a study on Indian Americans also backs up the idea that having a supportive family can help prevent developing anxiety and depression symptoms.^[25] Another study done in China provides a high association between social support and the preservation of positive mental health during COVID-19.^[26]

Limitations and strengths

There are a few limitations identified in this study. First, it was a cross-sectional study at one institution, which limits the generalizability of findings. The use of self-reported questionnaires was a second limitation of this study due to the chances of bias and inaccurate responses. Thus, longitudinal studies on samples from multiple healthcare institutions are recommended.

The strengths of this study lie in the fact that these findings, specifically family support and gender difference, can aid institutions in designing and implementing more effective mental support programs. These programs can alleviate the burdens of future public health crises and pandemics. Another strength of this study is that it included many nationalities other than the Saudi nationality and a wide range of age groups, which can help institutions develop more precise support programs that suit all HCWs.

Conclusion

The relationship between psychosocial support and the mental health of HCWs during COVID-19 was identified. Among subspecialties, there were not any significant differences regarding the levels of depression, anxiety, and stress. However, despite the indication that the majority of HCWs did not receive regular check-ins nor targeted interventions, there was a slightly positive impact on HCWs who did. The presence of immediate supervisors or regular check-ins during COVID-19 alleviated

some of the burdens of HCWs and increased their efficacy at work. Moreover, males were more satisfied with regular check-ins, and they had significantly less anxiety and stress than females.

Notwithstanding, the results of this study might have had confounding factors that were not considered, such as gender discrimination and sincerity and seriousness in answering the survey questions. For this reason, further investigations on larger samples are needed to investigate these confounding factors to get more accurate results. Replicative studies on the national level that include all Saudi hospitals are recommended to find out whether they have support programs for HCWs. Such studies will allow researchers to appraise differences between hospital psychosocial support programs and compare their effectiveness and impact on HCWs more efficiently. More importantly, mental support programs should be available for all HCWs around the world for free.

Significance of the study

As prevention is a fundamental goal in family medicine and primary care, this research is essential because it focuses on prevention rather than treatment. Preventing psychological stressors among HCWs can stop the development of future physiological illnesses, social problems, and socioeconomic financial burdens. The problem of HCWs being at high risk for potential mental and social complications sheds light on the necessity for all institutions to develop efficient psychosocial support programs to improve the quality of HCWs' lives and performance. Not all institutions will develop such programs for their workers because these programs need careful planning and funding. To make all hospitals and institutions apply such programs, specific strategies planned and enforced by the government are highly advised. Such strategies include but are not limited to hotline phone consultations, online consultations, regular self-check-ins, mental health education programs, and mental health clinics specified for employees. To apply such programs at the national and international levels and improve the overall mental health of HCWs, a lot of information is needed about the existence and effectiveness of such programs. There is a lack of such information in many countries worldwide, including the Kingdom of Saudi Arabia; hence, this study adds necessary information to a prominent missing gap.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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