



The COVID-19 Pandemic Affects Anxiety and Depression among Moroccan Healthcare Worker's

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Abstract

The COVID-19 pandemic has become a global crisis; it has prompted each country to take the necessary measures, starting with the health sector with its different material and human resources. This study evaluates the anxiety and depression of a group of 403 healthcare workers across Morocco using a Hospital Anxiety and Depression (HAD) assessment scale during this crisis. The results show severe anxiety among the healthcare workers in the COVID-19 services compared to staff who do not work in the COVID-19 department with a very significant p-value <0.0001. Insurmountable psychological pressure on nurses leads to various problems such as anxiety, fear, frustration, depression and insomnia that affect quality of life and require psychological support.

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Introduction

Since December 2019, a global public health crisis began to spread because of the new Coronavirus 2019 (COVID-19) or Severe Acute Respiratory Syndrome-Coronavirus2 (SARS-CoV-2) [1] which belongs to the beta Coronavirus family. It appeared for the first time in Wuhan [2], this pandemic is spreading rapidly throughout the world [1].

This pandemic has attracted increasing attention and a remarkable threat [3] given the mortality and morbidity rate that caused. Morocco was among the countries affected by this vi-

rus, the first case was declared by the Moroccan Ministry of Health on March 2, 2020, it was an incoming case, and then the curve begins to rise day by day. Morocco has taken proactive measures such as early containment, and has taken things seriously by investigating at all levels.

At the forefront of the care promulgated for COVID-19 patients, caregivers are more exposed than those who are confined. Although the risk of contracting the disease is higher, an insidious evil must also mobilize us: the psychological difficulties



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encountered by the caregivers. These psychological abnormalities derive from sympathy for survivors of trauma, which causes serious mental problems, even anxiety and depression [4].

However, caregivers in COVID-19 services show more symptoms of depression, anxiety and psychological distress. Frequently, these symptoms are accompanied by trauma that translates into interpersonal conflicts that force suicide [5].

In this study, 403 healthcare workers across Morocco were employed and assessed using a Hospital Anxiety and Depression scale (HAD) [6], in addition to questions on the perception of confinement and its impact on possible changes in daily life. Therefore, our results may provide a viable basis for good psychological support for healthcare workers.

Methods

The framework and participation

The study is descriptive in nature, using an anonymous online questionnaire, which consists of three parts: Demographics. HAD scale; that consists of 14 items rated from 0 to 3, seven questions refer to the anxiety dimension (total A) and seven others to the depressive dimension (total D), allowing two scores to be obtained (maximum score of each score 21) and containment impact. It employed healthcare workers who worked in hospitals in the various departments including COVID-19. Therefore 403 healthcare workers completed the questionnaire. This was an approved project by Hassan I University, the Higher Institute of Health Science, Settat Morocco.

Data analysis

The data was analyzed with SPSS IBM. A descriptive analysis was conducted for data on the general characteristics of nurses, and their anxiety and depression according to the HAD scale. Enumeration data were presented as mean, standard deviation and p-value. Comparisons between two groups were performed using two independent sample t-tests, and comparisons between multiple groups were performed using single-factor ANOVA.

Results

Comparison between health professionals based on COVID-19 service's

In this study, 403 healthcare workers voluntarily participated by providing the following parameters: Gender, age, marital status, professional qualification, and professional experience.

The HAD scale was used to identify the state of anxiety and depression of health professionals due to the COVID-19 pandemic.

As shown in Table 1, the level of anxiety and depression of healthcare workers in the COVID-19 service is higher than that of professionals not involved in the COVID-19 service ($p < .0001$).

Stratifying on sociodemographic characteristics, both sexes were anxious ($p < .0001$) and depressive ($p < .0001$). Concerning the age categories, anxiety and depression increased as age increased. Health workers aged between 40 and 50 years were more anxious and depressive (Δ anxiety=4.61; Δ depression=4.16) than those aged between 18 and 30 years (Δ anxiety=1.34; Δ depression=0.85).

Regardless of marital status, health professionals working in a Covid-19 services are more anxious and depressed. However, divorced health care professionals are more anxious and depressed (Δ anxiety=4.6; Δ depression=4.89) than single people (Δ anxiety=1.5; Δ depression=1.13) and married individuals (Δ anxiety=2.94; Δ depression=1.97).

When we consider the relationship between the specialty of health professionals, the assignment service (Covid19 or not Covid19) and the level of anxiety and depression, we observe that the other specialties, with the one exception of radiology technicians, are more anxious when they worked in a Covid19 service's ($p < .0001$). Laboratory technicians are the most anxious with a Δ anxiety=5 and Δ depression=4.89. With regard to depression, it increases significantly ($p < .0001$) only in anesthesia and resuscitation nurse and versatile nurses.

Regardless of the number of years of experience, all health professionals working in the Covid19 service are more anxious and depressed (with the exception of those experienced professionals between 4 and 5 years, $p > .05$). Nevertheless, people with 10 or more experiences are more anxious (anxiety=4.24) and more depressed (depression=3.48).

Intra-comparison among health workers in Covid19 service

The relationships between anxiety, depression and study parameters for health care workers in the Covid19 are presented in Table 1. Professional qualification and work experience were not statistically related to anxiety and depression ($p > .05$). On the other hand, anxiety and depression were significantly correlated with gender ($p = .001$), and were higher in men than in women. This difference was mainly observed between health workers aged less than 30 years and all of the other categories.

ANOVA Analysis also demonstrate significant differences in anxiety and depression between the marital status categories ($p = .0001$). Single persons were less anxious and depressive. Contrary, widow working in COVID-19 service were the most anxious and depressive.

Table 1: Anxiety and depression among healthcare workers in Covid-19 services versus those not working in.

	HAD-Anxiety				HAD-Depression			
	Covid-19 n (mean ± SD)	Covid-19 n (mean ± SD)	p-value	Covid-19 only	Covid-19 n (mean ± SD)	Covid-19 n (mean ± SD)	p-value	Covid-19 only
Overall	163 (12.54 ± 3.42)	240 (14.94 ± 3.22)	<0.0001	-	163 (12.41 ± 3.43)	240 (14.27 ± 3.59)	<0.0001	-
Sexe	Female	125 (12.73 ± 3.23)	128 (14.26 ± 3.26)	<0.0001	0.001 [§]	125 (12.68 ± 3.23)	128 (13.75 ± 3.94)	<0.0001
	Male	38 (11.92 ± 3.98)	112 (15.72 ± 3.16)	<0.0001		38 (11.55 ± 3.64)	112 (14.85 ± 3.46)	<0.0001
Age (year)	[18-30] ^a	100 (12.79 ± 3.52)	125 (14.13 ± 3.39)	<0.0001		100 (12.43 ± 3.65)	125 (13.28 ± 3.86)	<0.0001
	[30-40] ^b	39 (12.23 ± 3.48)	55 (15.30 ± 3.16)	<0.0001	<0.0001*	39 (12.58 ± 3.32)	55 (15 ± 3.16)	<0.0001
	[40-50] ^c	13 (11.69 ± 2.92)	36 (16.30 ± 2.49)	<0.0001	(ab ; ac ; ad)	13 (11.61 ± 3.04)	36 (15.77 ± 2.73)	<0.0001
	>50year ^d	10 (12.60 ± 3.09)	23 (16.34 ± 2.99)	<0.0001		10 (12.70 ± 2.40)	23 (15.60 ± 2.75)	<0.0001
Marital Status	Single ^e	90 (12.93 ± 3.63)	109 (14.43 ± 3.33)	<0.0001		90 (12.48 ± 3.76)	109 (13.61 ± 3.90)	<0.0001
	Married ^f	67 (12.04 ± 3.14)	98 (14.98 ± 3.41)	<0.0001	0.007*	67 (12.40 ± 3.05)	98 (14.37 ± 3.31)	<0.0001
	Divorced ^g	5 (11.4 ± 2.07)	23 (16 ± 2.06)	<0.0001	(eg ; eh ; fh)	5 (10.8 ± 2.28)	23 (15.69 ± 2.73)	<0.0001
	Widow ^h	1 (17)	10(17.7 ± 1.7)	-		1(15)	10 (17.1 ± 2.13)	-
Professional qualification	Anesthesia and resuscitation nurse	23 (11.82 ± 4.27)	90 (14.96 ± 3.15)	<0.0001		23(11.86 ;±3.72)	90 (13.93 ± 3.41)	<0.0001
	Versatile nurse	62 (12.27 ± 2.95)	99 (14.83 ± 3.60)	<0.0001		62(11.88 ; ±3.15)	99 (14.26 ± 3.88)	<0.0001
	Emergency and critical care nurse	-	6 (14.66 ± 1.96)	-	0.63*	-	6 (17.33 ± 3.07)	-
	Midwife	33 (12.87 ± 2.92)	11 (14.72 ± 3.46)	<0.0001		33 (12.87 ; ±3.00)	11 (13.90 ± 3.20)	0.17
Professional experience (year)	Laboratory technician	9 (13.33 ± 2.95)	3 (18.33 ± 1.15)	<0.0001		9 (14.22 ; ±2.77)	3 (18 ± 2.64)	0.46
	Radiology technician	5 (15.00 ± 2.54)	16 (15.25 ± 2.95)	0.7		5 (14.20 ; ±4 ;20)	16 (15.12 ± 3.26)	0.94
	<1year	36 (12 ± 3.55)	33 (14.57 ± 2.82)	<0.0001		36 (11.69 ; ±3.71)	33 (13.18 ± 4.03)	0.002
	[1-3]	43 (13.41 ± 3.61)	73 (14.23 ± 3.77)	0.02		43 (12.93 ; ±3.58)	73 (13.98 ± 3.98)	0.004
Covid-19 No Service, Covid-19+ Service, *Anova, § Student test	[4-5]	15 (13.4 ± 2.55)	33 (15.06 ± 2.80)	<0.0001	0.09*	15 (13.53 ; ±3.64)	33 (14.09 ± 2.74)	0.22
	[6-10]	22 (13.36 ± 3)	41 (15.24 ± 2.92)	<0.0001		22 (13.31 ; ±3.16)	41 (14.43 ± 3.47)	0.011
	>10year	47 (11.51 ± 3.33)	60 (15.75 ± 3.26)	<0.0001		47 (11.72 ± 2.96)	60 (15.20 ± 3.20)	<0.0001

Discussion

The results showed a diversification of demographic characteristics as well as a differentiation of anxiety and depression among health care workers in COVID-19 services compared to those not working in COVID-19 services. The study found that the level of anxiety and depression among health care professionals in the COVID-19 service is higher than that of professionals not involved in the COVID-19 service ($p < .0001$) and that anxiety and depression increase with age. However, divorced health professionals were more anxious and depressed.

The level of anxiety and depression according to the specialties of health care workers, we observe that Laboratory technicians are the most anxious with anxiety=5 and depression=4.89. With regard to depression, it increases significantly ($p < .0001$) only in anesthesia and resuscitation nurses and multi-skilled nurses. Independently of the number of years of experience, all health professionals working in the COVID-19 service are more anxious and depressed (with the exception of experienced professionals between 4 and 5 years, $p > .05$). Nevertheless, people with 10 or more years of experience are more anxious (anxiety=4.24) and more depressed (depression=3.48) and for those most anxious and depressed in a COVID-19 service we note that men and widows in general, regardless of their demographic characteristics, are more anxious and depressed among health professionals working in a COVID-19 service.

Limited knowledge of the virus and overwhelming news can cause anxiety and fear among nurses [7]. Based on the participants' description of their experiences in this situation, most of them experience stress, nervousness, loneliness, fatigue, loss, sometimes depression, fear of infecting themselves or their loved ones, especially for those who return home after being treated in the health care facility. Compared with other occupation, healthcare workers have the highest rate of poor sleep quality [8]. Participants in this study expressed many other negative feelings that showed their psychological pain and suffering. But each one of them has its sources that help them to endure such hard and severe conditions, and we note; the support of the family, love and appreciation of the nobility of the profession, duty and professional conscience, not forgetting the religious aspect indicated by a large group of them.

In addition, staff were concerned about the lack of protective equipment and the feeling of incapacity when caring for seriously ill patients, as in China [9], stating that they needed more uninterrupted rest and sufficient protective equipment.

The study demonstrated the degree of anxiety and depression among health care workers in both COVID-19 and non COVID-19 services, it also showed that the most affected personnel are those in COVID19 services, regardless of their demographic characteristics; therefore, our results may provide a theoretical basis and viable strategies for providing psychological assistance to health care workers.

Conclusion

Healthcare workers are one of the major pillars that are in the first line of defense. Fighting this pandemic, sacrificing their time, effort, and lives in the fight against this pandemic.

This presents them with an insurmountable psychological pressure that causes various problems such as anxiety, fear, frustration, depression and insomnia [10].

References

1. Wang C, Horby PW, Hayden FG, Gao GF. A novel coronavirus outbreak of global health concern. *The Lancet*. 2020; 395: 470-473.
2. Zu ZY, Jiang MD, Xu PP, Chen W, Ni QQ, Lu GM, et al. Coronavirus Disease 2019 (COVID-19): A Perspective from China. *Radiology*. 2020; 200490.
3. Yang X, Yu Y, Xu J, Shu H, Xia J, Liu H, et al. Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: A single-centered, retrospective, observational study. *The Lancet Respiratory Medicine*. 2020; S2213260020300795.
4. Sinclair HAH, Hamill C. Does vicarious traumatization affect oncology nurses? A literature review. *European Journal of Oncology Nursing*. 2007; 11: 348-356.
5. Creighton G, Oliffe JL, Ferlatte O, Bottorff J, Broom A, Jenkins EK. Photovoice Ethics: Critical Reflections From Men's Mental Health Research. *Qual Health Res*. févr. 2018; 28: 446-455.
6. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand*. 1983; 67: 361-370.
7. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*. 2020; 395: 912-920.
8. Huang Y, Zhao N. Chinese mental health burden during the COVID-19 pandemic. *Asian Journal of Psychiatry*. 2020; 51: 102052.
9. Chen Q, Liang M, Li Y, Guo J, Fei D, et al. Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry*. 2020; 7: e15-16.
10. Li Z, Ge J, Yang M, Feng J, Qiao M, et al. Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control. *Brain, Behavior, and Immunity*. 2020; S0889159120303093.