

Risk Perception Mental Health Impact and Coping Strategies during Covid 19 Pandemic among Health Care Workers

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ABSTRACT

Objective: To assess the risk perception mental health impact and coping strategies during Covid-19 pandemic among health care workers.

Study Design: Cross-sectional study.

Place and Duration of Study: Department of Community Dentistry, Frontier Medical & Dental College, Abbottabad from 1st January 2021 to 31st December 2021.

Methodology: Two hundred health care workers were given questionnaire for complete detailing their information regarding demographic, occupational, anxiety scoring and depression state.

Results: The age of the health care workers was mostly within 26-40 years followed by greater than 18 years. It was observed that anxiety was presented at a mild score within doctors and other health care worker staff while it was seen to a moderate level within the nursing health care workers. Furthermore, the gender distribution of anxiety showed higher level of anxiety among females than males. Within genders a low risk perception was seen within males than females. Among the health care workers, the risk perception was highest in nurses followed by paramedic and other health care staff.

Conclusion: Covid-19 has caused devastating effects on the psychological stability of the health care workers which needs to be properly assessed and addressed.

Keywords: Covid-19, Health care workers, Anxiety, Risk perception

INTRODUCTION

Covid-19 has been a life-threatening pandemic causing morbidities all over the globe. The primary case of Covid-19 was reported in the end of year 2019. This pandemic not only cause devastating effects to the patients suffering from this disease but also poorly affected the families concerned as well as those people who were giving their utmost care and effort for keeping the sufferer alive.¹⁻⁴ Such people include the health care workers. The health care workers were severely affected by the encounter of covid-19 related suffering among their patients. They were not only physically tired by over exerting duties but also developed psychological problems as a consequence of this disease.⁵⁻¹⁰

It is a fact that a health care worker can neither stay home nor keep social distance due to their professional and humanitarian responsibilities towards their patients. This brings them under great threat and infection risk due to direct contact with the Covid-19 infectious patients. This develops escalated psychological-pressure and mental illness in health care workers.^{11,12}

Various precaution guidelines and standard operating procedures have been introduced for health assurance of the health care workers however in unfortunate conditions the health care worker cannot keep up to these provided guidelines and prefer saving a life than prioritizing their own health. Furthermore, there has been shortage of biosafety and protective equipment bringing added depression and psychological stress on the health care workers.¹³⁻¹⁵ The present study was designed for assessing and providing better insight towards the risk perception mental impact and involved coping strategies of the health care workers in term of future management strategies.

MATERIALS AND METHODS

This cross-sectional survey-based study conducted at Department of Community Dentistry, Frontier Medical & Dental College, Abbottabad from 1st January 2021 to 31st December 2021. A total of 200 health care workers were included as study participants. Each participant was detailed about the research and their formal permission was gathered. All health care workers including doctors, nurses, paramedics, Laboratory technicians were included in this study. Age limit was defined as >18 years for enrollment. A survey-based questionnaire was prepared for documenting the responses of each participant. The questionnaire was formulated

on 5 main parts. First part included demographic information followed by questions about scale measurement of generalized anxiety disorders. Thirdly details about patient's health and forth were risk perception within the health care workers. Scales used for this context comprised of GAD 7 as well as PHQ 9. The former assessed levels of anxiety in terms of none as 0, for several days as 1, more than half days as 2 and every day as 3. Anxiety symptoms were classified as 0-14. Depression levels were classified by the later scoring method in similar patten as of anxiety scoring. Risk perception identification was performed by the participants through using six various items. Responses like Agree as 2, neutral as 1, disagree as 0 were recorded. Individual items were as scores while total items meant 0-12 with higher score referring to the higher risk perception. Data was analyzed using SPSS version 25.0 where Mann Whitney test was adapted for analyzing the result. P value <0.05 was taken as significant.

RESULTS

There were equal male and female doctors participating while a higher number of female nurses were recruited as study participants than males. In other health care worker lab technicians, paramedic staff was enrolled as study participants. The age of the health care workers was mostly within 26-40 years followed by greater than 18 years. Islam being the main religion of majority of the doctors while Christianity was the main religion of the nursing and other health care worker staff. Maximum number of doctors and nurses were directly linked with patient care and also with Covid-19 treatment. Unfortunately, medical access for their psychological conditions was not available to most of the health care workers (Table 1).

It was observed that anxiety was presented at a mild score within doctors and other health care worker staff while it was seen to a moderate level within the nursing health care workers. Furthermore the gender distribution of anxiety showed higher level of anxiety among females than males (Table 2).

The risk perception scoring was also performed and it was seen through Mann Whitney test that there was a low risk perception within males than females. Among the health care workers, the risk perception was highest in nurses followed by paramedic and other health care staff. There was high risk

perception for non-availability of mental health services among all the health care workers (Table 3).

Table 1: Demographic and working details of health care workers

Variable	Occupation		
	Doctors	Nurses	Others
Gender			
Male	50 (25%)	33 (16.5%)	17 (8.5%)
Female	50 (25%)	43 (21.5%)	7 (3.5%)
Age (years)			
≤18	12 (12%)	30 (39.47%)	12 (50%)
26-40	54 (54%)	40 (52.63%)	12(50%)
41-60	44 (44%)	6 (7.9%)	-
≥61	-	-	-
Religion			
Islam	91 (91%)	12 (15.7%)	4 (16.6%)
Christianity	8 (8%)	64 (84.2%)	20 (83.3%)
Living status			
Family	64 (64%)	10 (13.15%)	12 (50%)
Friends	2 (4%)	7 (9.2%)	12(50%)
Alone	34 (34%)	59 (77.63%)	-
Working position			
Direct patient care	95 (95%)	70 (92.1%)	10 (41.6%)
Indirect patient care	5 (5%)	6 (7.89%)	14 (58.3%)
Caring for COVID-19 patients	65 (65%)	56 (73.68%)	17(70.8%)
Access to mental health services	24 (24%)	-	-

Table 2: Prevalence of anxiety among health care workers

Variable	GAD-7 (Anxiety)			
	Normal	Mild	Moderate	Severe
Total	70 (35%)	68 (34%)	52 (26%)	10 (5%)
Occupation				
Doctor (n=100)	32 (32%)	36 (36%)	25 (25%)	7 (7%)
Nurses (n=76)	27 (35.5%)	8 (10.5%)	37 (48.68%)	4 (5.2%)
Others (n=24)	-	16 (66.6%)	-	8 (33.3%)
Gender				
Male (n=100)	37 (37%)	32 (32%)	25 (25%)	5 (5%)
Female (n=100)	19 (19%)	42 (42%)	34 (34%)	6 (6%)

Table 3: Risk Perception score among health care workers

Variable	Total score (Median, Min-Max)	Mean ranks	P value
Occupation			
Doctor	12 (6-12)	98	0.0001
Nurses	12 (9-12)	125	
Others	11 (10-12)	101	
Gender			
Male	12 (6-12)	97	0.0268
Female	12 (6-12)	99	
Caring for COVID-19 patients			
Yes	12 (6-12)	104	--
No	12 (9-12)	96	
Available mental health services			
Yes	12 (6-12)	101	--
No	12 (6-10)	110	

DISCUSSION

The present study results showed that an average of 15% of the health care workers have severe anxiety level which is more high in paramedical staff than doctors. A study found a severe to moderate level anxiety among various health care workers as 5-29%.¹⁶ A meta-analysis within recent years have found that anxiety prevalence in health care workers during the period of Covid-19 was about 23%. The current study also reported an average of 21% of health care workers also suffering from moderate level of anxiety.¹⁷

There are however few studies which has reported a lower prevalence as 8.7% of anxiety among health care workers.¹⁸ The number of doctors having anxiety was higher than number of nurses with anxiety Although the anxiety seemed in the doctors was up to milder level more while nurses suffered moderate levels

anxiety more. Prevalence of anxiety has been reported higher in literature than doctors.¹⁸

The availability of mental services for health care workers has been poorly noticed. This further leads for increase in psychological problems and depression which is left untreated. The prevalence of anxiety has been reported higher in female gender than males.¹⁸ Similar results have been reported in the present research as well where there was higher number of female health care workers than males.

Living alone being single surplus the depression and anxiety among health care workers. There is an international requirement of caring for mental illness of health care workers so that they can focus more and help the patients and humanity with full devotion and healthy mind.¹⁹ Nurses being one of the frontlines required great attention towards their own health as risk perception analysis showed a higher risk for nurses to develop psychological issues like depression and anxiety.²⁰

CONCLUSION

Covid-19 has caused devastating effects on the psychological stability of the health care workers which needs to be properly assessed and addressed.

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