

Assessment of level of satisfaction and depression among front-line warriors serving in a red zone covid-19 hospital in central India

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Abstract

Background: Covid -19 is a global health crisis of this century. Our battle against covid 19 is based mainly on front-line warriors. Their job profile has placed frontline workers under immense and unprecedented pressure, putting their mental well-being at stake. They are working in resource limited conditions. Mental stress and dissatisfaction is expected among them. It should be effectively recognised and handled. **Methods:** Cross sectional study was conducted in a covid care center of a teaching hospital to assess the level of satisfaction and presence of depression among front line warriors. Google form was use to collect data. **Results:** Approximately 87%, 79%, 61%,100% & 86% participants were not satisfied by PPE, stay, food, wages, security and financial security respectively provided them while performing covid duties. Half of them (50%) had depression. Statistically significant association was found between presence of depression and age, sex, residence, marital status, family type. **Conclusion:** Depression and dissatisfaction was prevalent finding among front line warriors. Inappropriate response and attitude towards them will bring fatigue and refractory attitude among them. Their needs and dissatisfaction should be delt while policy making.

Key words: Covid -19 front line warriors, Satisfaction, Depression

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Introduction

Covid -19 has exposed the ground reality of our health care system and preparedness for such pandemics. This is not only true for India but almost every county is struggling in battle against covid-19. The warriors of this battle are important. When pandemic hit hard, life paused but they still kept going despite of so many adversities. They delt all with great enthusiasm. They always kept service before self. So many things happened during 1and half year of pandemic. They faced so many praises with violence from public. Exposure to excessive stress, for prolonged periods may have adverse consequences on the mental well-being of frontline workers. Presence of un satisfaction and depression is obvious in them. To support frontline workers some guideline¹ and helpline[2] are also there but not seemed to be enough. Aim of the study was to record front line warrior's perception regarding their condition during Covid-19 pandemic. Primary objectives of study were to record the perception of front-line warriors regarding attitude of government and public for them and estimate the prevalence of depression among them, secondary objective was to co relate socio demographic profile with presence of depression.

Methodology

The study was conducted after obtaining the ethical approval from institutional ethical committee of a teaching hospital. By adopting Covid appropriate behaviour we decided to collect responses of participants online with the help of google form rather than performing face to face interview. In initial section of proforma there was brief discussion about the purpose of study, we ensured participants about confidentiality of information provided by them. After this consent was taken in form of a response. The study was conducted in a teaching hospital designated as covid care center in central India. Cross sectional study design was chosen to achieve the stated objectives. Study duration was 3 months. There were 3 sections in this form. First section was about the socio demographic information of study participants, 2nd was regarding satisfaction for various services provided them while performing their covid duties and 3rd section was to assess the presence of depression among them. Depression was assessed with the of Halmilton Depression Rating scale (HDRS). Depression was assessed with the help of Hamilton Depression Rating Scale (HDRS)[3]. Scoring is based on the 17-item scale and scores of 0-7 are considered as being normal, 8-16 suggest mild depression, 17-23 moderate depression and scores over 24 are indicative of severe depression; the maximum score being 52 on the 17-point scale. The perspective of front-line warriors regarding their level of satisfaction by attitude towards them and level of depression while serving in covid -19 was recorded.

Faculty, Post graduate (MD/MS) student, Interns, MBBS student, Dental faculty (MDS), Interns, students, AYUSH doctor, Nursing staff, Technician (lab/x-ray), Other paramedical staff, cleaning staff, watchmen, canteen staff posted in covid -19 ward/lab and whoever involved in patient care in anyways, were recruited for study as study participants. The duty roster along with contact number and mail id of each cadre was obtained. Google proforma was sent to each of them. Covid warriors, who has submitted form along

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with consent for participation in study were **included** in the study and who have not submitted the form even after 3 reminders in form of request messages in 15 days of sending form, were **excluded** from study. Study was planned with the **Aim** of to assess the prospective of covid front line worker posted in covid care center in a teaching hospital in central India **and** Primary objectives of the study were to **Results and observations**

assess the satisfaction among covid-19 warriors for attitude towards them and to assess the depression among covid warrior secondary objective was to co relate the depression with socio-demographic profile.

Table 1 Socio-demographic profile of Participants

Variables	Frequency (Percentage)	
Age	<30 years	90(54.54)
	>30years	75(45.45%)
Sex	Male	117(70.90)
	Female	48(29.09)
Residence	Urban	93(56.36)
	Rural	72(43.63)
Family type	Nuclear	92(55.75)
	Joint	73(44.24)
Religion	Hindu	137(83.03)
	Other than Hindu	28(16.96)
Marital status	Married	89(53.93)
	Single	76(46.06)

Table 1 shows approximately 54% participants belonged to less than 30 years of age most(71%) of the participants were male, 56 % participants were from urban area nearly same (56%) participants were from nuclear family, 83% participants were Hindu by religion and 54% participants were married.

Table 2 Cadre wise distribution of participants

Variables	Frequency	Percentage
Doctors (MBBS,MD/MS,Ayush,Dentist)	38	23.03
Interns and students	50	30.30
Nursing staff	41	24.48
Technician(lab/X-ray)	12	7.2
Paramedical staff and other staff (cleaning/canteen/watchman)	24	14.54
Total	165	100

Table 2 shows Approximately 23% participants were Doctors, 30% were interns or students 24% were nurse 7.2% were technicians either in lab or in radiology and 14% were paramedical or other staff serving in covid -19 wards.

Table 3: Satisfaction of participants by services provided

	Services provided	Response	Frequency (percentage)
Satisfied by	PPE	Yes	21 (12.72)
		No	144 (87.27)
	Stay	Yes	35 (21.21)
		No	130 (78.78)
	Food	Yes	65 (39.39)
		No	100 (60.60)
	Remuneration	Yes	0 (0)
		No	165 (100)
	Security	Yes	23 (13.93)
		No	142 (86.06)
	Financial security	Yes	15 (9.09)
		No	150 (90.90)

Table 3 shows 87 % participants were not satisfied by PPE, 79% were not satisfied by stay, 61% were not satisfied by food, all participants were unsatisfied by wages, 86% were not satisfied with security and 91% were not satisfied by financial security provided during their duties in covid-19 wards.

Table 4: Satisfaction of participants by attitude of public & government

	Attitude	Yes	No
Satisfied by	Government	62(37.57)	103(62.42)
	Public	121(73.33)	44(26.66)

Table 4 shows satisfaction of front line warriors with attitude of government and public. Most (62 %) of the participants were not satisfied with government attitude and 27% were not satisfied by public attitude

Table 5: Depression among participants

Depression	No	83(50.30%)
	Mild	52(31.51)
	Moderate	21(12.72%)
	Severe	9(5.45)
Total		165

Table 5 shows 50% participants had no depression 32%,13% and 5% had mild, moderate and severe depression.

Table 6: Association between Depression and socio-demographic profile of participants

		Depression			chi square	df	P value
		Yes	No				
Sex	Male	51	66	117	6	1	0.01
	Female	31	17	48			
		82	83	165			
Age	<30 years	30	60	90	21 [^]	1	0.00
	>30 years	52	23	75			
		82	83	165			
Residence	Urban	38	55	93	6.65	1	0.009
	Rural	44	28	72			
		82	83	165			
Marital Status	Married	56	33	89	13.51	1	0.000
	Single	26	50	76			
		82	83	165			
Family type	Nuclear	59	33	92	17.32	1	0.000
	Joint	23	50	73			
		82	83	165			
Religion	Hindu	65	72	137	2.81	1	0.09
	Other than Hindu	17	9	28			
		82	83	165			

Table 6 statistically significant association was found between depression and sex, age, residence, marital status and family type.

Other results of the study

Reason for serving in covid ward – the most of the front-line worker replied they are working willingly while rest of them responded that they are working under pressure either fear of losing job or failing in examination. 59.39 % participants got infected with covid while posted in covid ward.

Discussion

A study [4] concluded that anxiety and depression were present in 23% ($n = 59$) and 16.8% ($n = 43$) of participants. The prevalence depression was much higher in current study as compare to this study [4]. Kumar S [5] et al assessed depression with DASS-21 (Depression Anxiety and Stress Scale) and reached at almost similar conclusion that 48.6% had depression as ours. A study [6] that was conducted to highlight the psychological impact of the pandemic on the front-line HCWs. They concluded that the magnitude of mental health problems among the HCWs is huge; some of the common conditions are burnout, anxiety, depression, stress-related disorders, and so on. It is mediated by various biological, psychological and socioenvironmental factors. Lack of the effective communications, tangible support from the higher authority, misinformation, unavailability of PPEs, stigma and job-related stress are some of the major contributory factors for the development of the mental health problems among the HCWs according to them. Chatterjee SS et al [7] found Out of 152 study participants, 34.9% were depressed. It was somewhat less than found in current study. Sahoo S et al [8] reported mild depressive symptoms (as per the GAD-7 and PHQ-9 grading) in 21% participants while in current study 32% had mild depression. Sharma SK [9] found Out of 354 nurses, 12.1% were suffering from anxiety while 14.7% had depression this is far less than our study. Sharma R [10] revealed among the administrative staff (total 50), 11/50 (22.0%) were depressed when compared to HCWs demonstrating a significantly higher prevalence of depression: 72/150 (48.0%) ($P < 0.001$) exhibiting higher DASS-21 scores. They did the comparative study while we conducted this study on front line warriors including health care workers. Sharma A & Mohanan K [11] found nurses were facing issues regarding management, work environment, family cross infection, self-infection risk, assault, emotional & physical drain and psychological stress. They conducted the study on nursing staff only. Upadhyaya DP et al [12] concluded that the majority of FHWs (63.6%) perceived the government response to COVID-19 management as unsatisfactory. Gunchan Paul et al [13] concluded that approximately 56% GPPs and 47% HCWs were satisfied by the policies and decisions by government and health

agencies for control of COVID infection, some participants (18.8% GPPs; 15% HCWs) worried about the financial loss. MF et al [14] concluded that about 53% of the respondents were not satisfied with the provision of PPEs and 64% were not satisfied with their work and wages situation. Singh H [15] Concluded 59.5% were not satisfied by training for covid duty. Many were not satisfied by PPE kit availability as they purchased their PPE kit by their own. Only around 46% are being provided with alternative place to stay so rest will be not satisfied. In current study also huge unsatisfaction was noted in participants for various provisions.

Conclusion

To protect the mental health of front-line warrior is a challenge in this covid pandemic era. As concluded by current study front line Corona warriors were depressed and unsatisfied by provision given by government and by attitude of public. Their needs and un-satisfaction should be handled while policy making. We should ensure positive mental health of front-line warrior by early interventions. Mental health promotion strategies should be adopted and we should try to enhance their social support.

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