Prevalence and Factors of Anxiety,Depression and Stress Symptoms in Health Care Workers in a Tertiary Care Hospital during Covid-19 Pandemic

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Abstract -

Background - In the wake of Covid 19 pandemic, the health care system is grappling with unprecedented mental health issues among frontline health care workers.

Aim - To outline the prevalence and the potential factors related to anxiety,depression and stress symptoms in health care workers in a teritiary care hospital during COVID 19 Pandemic

Methods - Cross sectional web based observational study including 226 participants is conducted.

Tools include self-designed online questionnaire,Depression Anxiety Stress Scale 21,Insomnia Severity Index,Brief Resilience Coping Scale.

Statistical analysis done using the SPSS version 20. Prevalence was represented by frequency and percentage analysis. Chi-square test and logistic regression is performed to evaluate the association between demographic variables and the study variables. P value< 0.05 is taken as statistically significant.

Results

This study shows a high prevalence of depression,anxiety,stress and insomnia among health care workers during the covid 19 pandemic.Depression is associated with designations including interns,postgraduates and MBBS doctors.Concerns about getting infected with covid 19 at work,regarding taking infection home and spreading to family members,regarding developing severe complications if infected,concerns about stressful working hours and about providing competent medical care were strongly associated with depression.Anxiety was associated with contact with Covid 19 patients in the past week,accidental exposure to covid 19 positive patients in the past week and also associated with concerns regarding developing severe complication if infected and also with concerns regarding inability to give one's best medical care due to the need to protect self.Insomnia is also found to be associated with most of the concerns related to Covid 19 infection.Moreover,the study also reveals insomnia as a potential predictor for depression and anxiety.

Conclusion - Our study highlights the indispensable need to regularly screen the frontline health care workers for stress,anxiety ,depression and insomnia inorder to diagnose the milder forms of mental health issues even as they emerge.

Key words- Covid 19,depression,stress,anxiety

INTRODUCTION

The World Health Organization declared Covid-19 as a global pandemic on March 11 2020(1).All pandemics in history have thrown a severe impact on the physical and mental health across all population groups.Health care workers who are in the forefront to tackle the Covid-19 pandemic, no doubt form a group of population that is most targeted for psychological breakdown(2).This particular group is directly involved in the screening,diagnosis,treatment and care of patients and hence most prone for emotional exhaustion and thus run a high risk for developing mental health symptoms as has been reported in previous studies related to the 2003 Severe Acute Respiratory Distress Syndrome(3),2014 Ebola virus disease and 2015 Middle East Respiratory Syndrome(MERS) outbreak(**4**)(**5**).Study done in China during Covid 19 pandemic has reported a prevalence of 13.6%,13.9% and 8.6% of depression,anxiety and stress repectively(**6**).Depression,anxiety,fear and stress are some of the commonly encountered symptoms among frontline health care workers(7)

Depression

In comparison with the general population,the health care workers exhibit a 3 fold increase in the prevalence of depression(8).The burden of depression encountered during the current pandemic is alarming.A study conducted in Saudi Arabia unveils a prevalence of 25.7%(9).An Indian study done in Karnataka revealed a prevalence of 23.8% of depression(10).The risk factors observed are work burden,inadequate personal protective equipment(PPE),increasing number of confirmed cases,lack of specific treatment,vulnerability to infection,having to stay in quarantine and inadequate support at the workplace(11)

Anxiety

The pandemic has subjected the health care workers to high levels of anxiety and significant psychological consequences in the long run(12).A nation wide observation study revealed a prevalence of 17.7% anxiety(13).Among the health care works,doctors experienced highest level of anxiety.Long hours of work, decision making,witnessing deaths, lower age,female gender and single marital status were the risk factors associated with anxiety.(14)(15)(16).

Stress

Study by Wilson et al(13) revealed a prevalence of 3.1% stress during the pandemic.Increased workload,physical exhaustion,fear of contagion,inadequate personal equipment and unsettling changes in the ways of working were all taking their toll on the health care worker's resilience(17)

Insomnia

A systematic review and meta analysis has revealed a prevalence of 38.9% insomnia among health care workers(17).Depression was an independent predictor of insomnia.Higher prevalence of insomnia among females and single health care workers were seen in other studies(18).

             There is an urgent need to alleviate the psychological distress seen among health workers as they constitute the most essential work force in our combact against covid-19 pandemic.The specific objective of the study is to outline the prevalence and the potential factors related to anxiety,depression and stress symptoms in health care workers in a teritiary care hospital.

Materials and methods

The study is a cross sectional web based,questionnaire based observational study for health care workers from May 2020 to Feb 2021 .Ethics committee approval was obtained from the Institutional Research Board.

Sample size calculation

Considering the estimated sample of depression among health care workers to be 31.4% and the prevalence of anxiety to be 37.2% based on the study by Simmi Gupta et al.(19),the sample size estimated using the formula $N = z^2_\alpha P (1P)/d^2$ for anxiety is 162 and for depression is 210.Hence a representative sample for the present study is taken as 226.

We used the purposive sampling method for the study.The web links to the questionnaire was sent to prospective participants through Whatsapp and E-mail.All participants were

given information about the purpose of the study and were assured confidentiality.Participating in the study indicated their consent to the study.The participants included health care providers- physicians,residents,nurses,technitians and administrative staff of a tertiary health care centre in Chennai,India.

The first set of in -house designed questionnaire comprised of various socio demographic details,work related details such as contact with covid-19 patients,accidental exposure to covid-19 positive cases and tested covid-19 positive

The second set of questionnaire was aimed at assessing the prevalence of anxiety ,depression and stress using DASS,the 21 item Depression,Anxiety,Stress Scale.It contained 3 subscales with 7 parametres each to signify 3 different mental statuses.

Total score summed up to 21.For each item the score was an integer number between 0(does not apply to me at all) and 3(it apply to me exactly)(20).

The Insomnia Severity Index(ISI) is a 7 item self report questionnaire evaluating the nature,severity and impact of insomnia.The ISI investigates participants difficulty in falling asleep,difficulty in remaining asleep,very early waking,the satisfaction derived from the sleep pattern,impairment emerging in day to day functioning,awareness of sleep related impairment and stress levels caused by sleep problems in the previous 1 month.Items are rated on a 5 point likert –type scale,ranging from

0(no problem) to4(very severe problem).Total scores range between 0 and 28.Total score of 0 to 7 indicates absence of insomnia,8 to 14 - subthreshold insomnia,15 to 21 –moderate insomnia and 22 to 28-severe insomnia(21).

The Brief Resilience Coping Scale (BRCS)is a four item measure designed to capture tendencies to cope with stress in a highly adaptive manner.The BRCS has adequate internal consistency and test retest reliability(22).Concerns related to Covid-19 is an in-house designed questionnaire employed to assess how much the participants are concerned about each stressor.Concerns are rated on a 5 point likert- type scale ranging from 1(never concerned) to 5 (always concerned).

Statistical analysis-

The data obtained were analysed using the SPSS version 20 .Prevalence was represented by frequency and percentage analysis. Chi-square test and logistic regression is performed to evaluate the association between demographic variables and the study variables. A p-value less than 0.05 is taken as statistically significant.

RESULTS –

The demographics of the 220 study participants showed a female distribution of 65.8% and a male distribution of 34.2%.
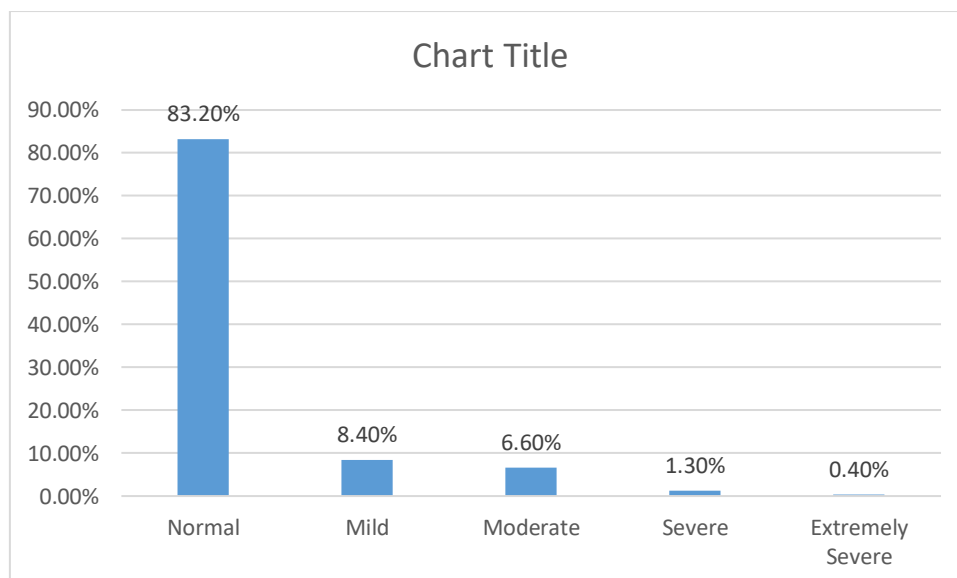
PREVALENCE AND SEVERITY OF PSYCHOLOGICAL DISTURBANCES
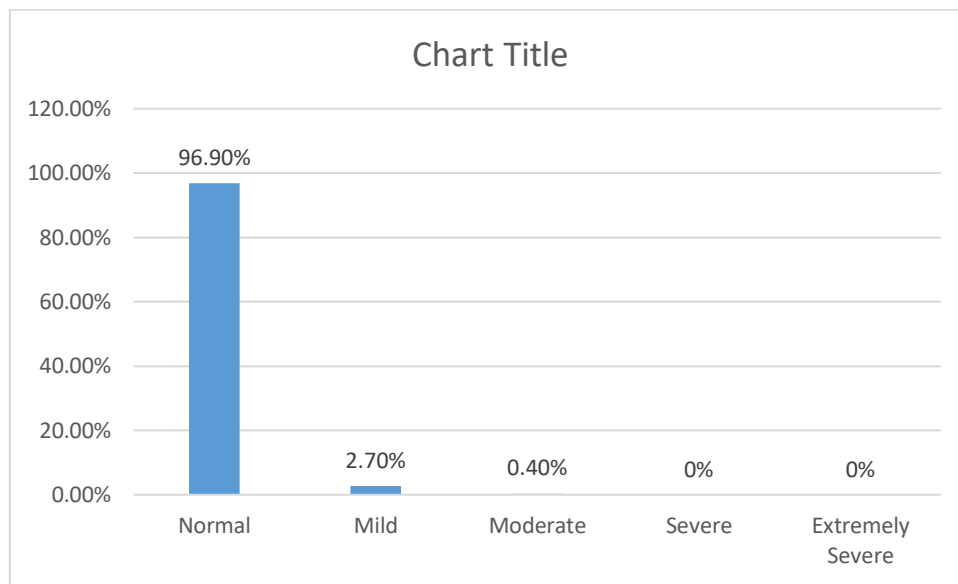
PREVALENCE OF DEPRESSION(figure 1)

Chart Title
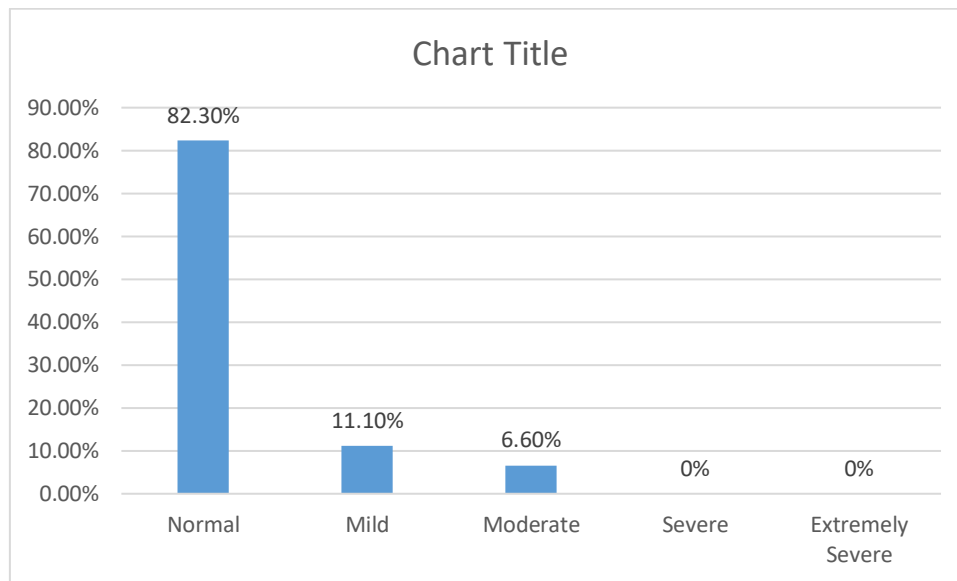
In the study population 17.1% of health care workers were depressed.

ANXIETY---

Prevalence of anxiety(figure 2)

Chart Title

Overall prevalence of anxiety was 16.7%.

STRESS---

Prevalence of stress(figure 3)

Chart Title

The overall prevalence of stress in the present study amounted to 3.1%.

INSOMNIA-

Prevalence of Insomnia (figure-4)

Chart Title
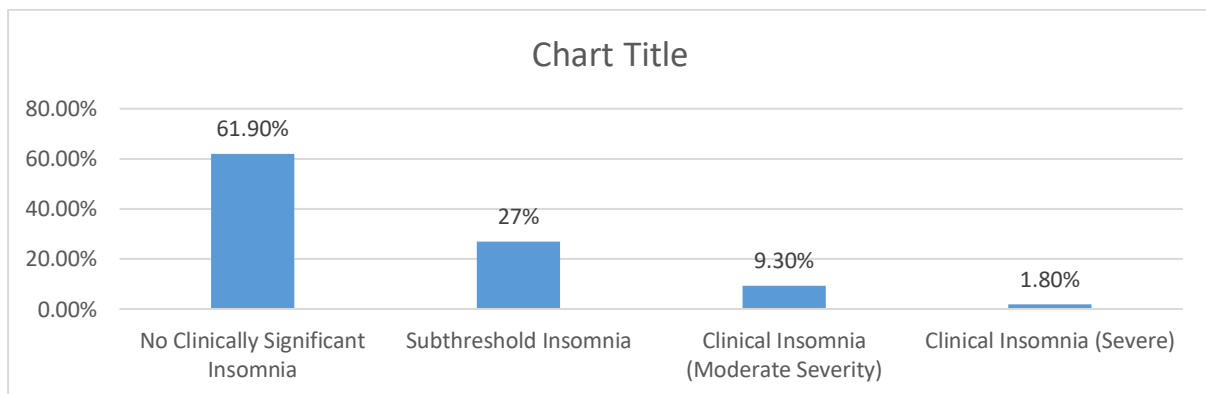
Insomnia Severity Index has provided an overall prevalence of 38.1%.

FACTORS ASSOCIATED WITH DEPRESSION,ANXIETY,STRESS AND INSOMNIA

Association between depression and designation (Table 1)

	Depression			
	Normal	Mild	Moderate	P

						value
Designation	Doctor - Intern (CRRI)	Count	44	9	5	
		% within Designation	75.90%	15.50%	8.60%	0.000
	Doctor - Postgraduate	Count	27	9	8	
		% within Designation	61.40%	20.50%	18.20%	
	Doctor - MBBS	Count	16	4	2	
		% within Designation	72.70%	18.20%	9.10%	
	Doctor - Speciality	Count	8	0	0	
		% within Designation	100.00%	0.00%	0.00%	
	Doctor - Super Speciality	Count	5	0	0	
		% within Designation	100.00%	0.00%	0.00%	
	Nursing Staff	Count	9	0	0	
		% within Designation	100.00%	0.00%	0.00%	
	Allied Health Worker	Count	72	2	0	
		% within Designation	97.30%	2.70%	0.00%	
	Administrative Staff	Count	5	1	0	
		% within Designation	83.30%	16.70%	0.00%	

When health care workers with various designations were studied,strong statistical association was seen in the case of interns,post graduates and MBBS doctors with severity of depression.8.6% of interns,18.2% of post graduates and 9.1% of MBBS doctors suffers from moderate depression compared to 0% in all other groups.

People with higher concerns of getting infected with covid 19 at work were found to have higher incidence of depression.17.4%of people who reported as 'always' regarding their concern of getting infected had moderate depression compared to only 1.1% of those who reported

"never" having any concern regarding getting infected.

Concerns regarding taking the infection home and spreading to family members had a strong association with depression.12.8% of those participants who were 'always' concerned about taking the infection home and spreading to family members had moderate depression compared to only 2.1% of those who never had any concerns.

Concerns regarding development of severe complications were associated with higher severity of depression.30.8% of the health care workers who were 'always' concerned about

developing severe complications had moderate depression compared to only 0.9% of those who never had any concerns

Participants who reported difficulty in work or stressful working hours due to Covid 19 pandemic has higher levels of depression.23.8% of people who were 'always' concerned regarding difficulty in working during covid 19 pandemic had moderate depression.But no case of moderate depression was seen in persons who reported to 'never' have any concern regarding difficulty in working during Covid 19 pandemic.

Health care workers who were 'always' concerned regarding providing competent medical care if posted in a new area were showing higher severity of depression.5.3% of those health care workers who were always concerned about providing competent medical care had moderate depression.But health care workers who were never concerned regarding providing competent medical care showed 0% of moderate depression.

ANXIETY

Association between demographic ,work related variables with severity of anxiety			Anxiety					Total	P value
			Normal	Mild	Moderate	Severe	Extremely Severe		
Contact with a COVID-19 patient in the past week as part of the job	Yes	Count	78	12	6	3	1	100	
		% within Contact with a COVID-19 patient in the past week as part of the job	78.00%	12.00%	6.00%	3.00%	1.00%	100.00%	0.041
	No	Count	110	7	9	0	0	126	
		% within Contact with a COVID-19 patient in the past week as part of the job	87.30%	5.60%	7.10%	0.00%	0.00%	100.00%	
Accidental exposure to COVID-19 positive patient in the past week	Yes	Count	36	9	5	2	1	53	0.010
		% within Accidental exposure to COVID-19 positive patient in the past week	67.90%	17.00%	9.40%	3.80%	1.90%	100.00%	
	No	Count	152	10	10	1	0	173	
		% within Accidental exposure to COVID-19 positive patient in the past week	87.90%	5.80%	5.80%	0.60%	0.00%	100.00%	

Association between demographic ,work related variables with severity of anxiety (Table 2)

Health care workers who has contact with covid 19 patients in the past week had significantly severe anxiety compared to those who had no contact.1% and 3% of health care workers who had contact had extremely severe and severe anxiety respectively.Among those who did not have contact with Covid 19,no one had extremely severe and severe anxiety.

Healthcare workers who had accidental exposure to Covid 19 positive patients in the past week were associated with higher levels of anxiety.3.8% and 1.9% of those who had accidental exposure had severe and extremely severe anxiety respectively compared to 0.6% and 0% of those who did not have accidental exposure.

Health care workers who were showing greater concerns regarding developing severe complications if infected with Covid 19 showed higher levels of anxiety.15.4% of health care workers who were 'always' concerned regarding developing severe complications if infected with Covid 19, had severe anxiety.Those who were 'never' concerned regarding severe complications,reported 0% severe anxiety.

Concerns regarding being not able to give best medical care due to the need to protect self was associated with greater levels of anxiety.Among those participants who were 'always' concerned being not able to give best medical care due to the need to protect self,6.3% showed severe anxiety and 6.3% showed extremely anxiety.But among health care workers who were never concerned about giving their best medical care,no one developed severe or extremely severe anxiety

STRESS---

No significant association could be drawn with any of the demographic and other variables.

INSOMNIA-

On comparing gender,males had a higher prevalence of severe insomnia.5% of males had severe insomnia compared to females who did not have severe insomnia.

Health workers staying alone had more severe insomnia than those staying with friends and family.5.4% participants who are staying alone had severe insomnia compared to 0.8% and 0% of those staying with family and friends respectively.

Although varying results are seen in designation,more percentage of interns,post graduate and MBBS doctors had significant levels of insomnia compared to specialist doctors,super specialist doctors,nurses ,paramedical staff and administrative staff.

Subthreshold insomnia was noted in 34.5% of interns,43.2% of postgraduates and 36.4% of MBBS doctors compared to 0% in specialist doctors,superspecialist doctors,and 22.2 % in nursing staff and 16.2% in allied health workers and 0% in administrative staff

Those health care workers who were posted in direct care of covid 19 patients,showed higher prevalence of insomnia.36.7% of health care workers in direct care of covid 19 patients had sub threshold insomnia compared to 20.6% of those who were not in direct care.

People who had contact with Covid 19 patients in the past week as part of the job had more severe insomnia.4% of health care workers who had contact with Covid 19 patients has more severe insomnia.But none among those who had no contact with covid 19 patients showed insomnia.

Health care workers who had accidental exposure with covid positive patients had significantly higher levels of insomnia compared to those without accidental exposure.5.7% among health care workers who had accidental exposure has clinically severe insomnia compared to only 0.6% of those who did not have accidental exposure.

Health care workers who were always concerned regarding access to appropriate PPE were significantly associated with higher severity of insomnia.Among those who were 'always' concerned regarding access to appropriate PPE,4.8% reported clinically severe insomnia whereas among those who were 'never' concerned showed 1.3% of clinically severe insomnia.

Concerned regarding getting infected with covid 19 at work were associated with higher severity

of insomnia.26.1% of those who were 'always' concerned regarding getting infected with covid 19 at work reported moderate clinical insomnia.But among those who were 'never' concerned regarding the same,4.2% showed moderately severe clinical insomnia.

Health care workers concern regarding not having rapid access to testing if they develop covid 19 symptoms were associated with higher severity of clinical insomnia.Among health care workers who were 'always' concerned about not having rapid access for testing,20% reported severe clinical insomnia.But among those who were 'never' concerned regarding the same,only 1.5% showed clinically severe insomnia.

Concerns regarding taking the infection home and spreading to family members was associated with higher severity of clinical insomnia.Among the health care workers who were 'always' concerned about taking the infection home and spreading to family members,17.9% reported moderate clinical insomnia,whereas the healthcare workers who were 'never' concerned regarding the same showed only 2.1% of moderate clinical insomnia.

Concerns regarding developing severe complication if infected with Covid 19 was associated with higher severity of clinical insomnia.Among health care workers who were

'always' concerned about developing severe complication if infected with Covid 19,38.5% showed moderate clinical insomnia.But only 3.5% of health care workers who were 'never' concerned regarding the same showed moderate clinical insomnia.

Concerns regarding difficulty in work or stressful working hours was associated with higher severity of insomnia.Among health care worrkers who were ' always' concerned regarding difficulty in work or stressful working hours,9.5% reported clinically severe insomnia.But none among the health care workers who were 'never' concerned regarding the same, reported clinically severe insomnia.

Concerns regarding not able to give ones best medical care due to the need to protect self was associated with greater severity of insomnia.Among those who were 'always' concerned regarding not able to give one's best medical care due to need to protect self,6.3% reported clinically severe insomnia.But among those who were 'never' concerned regarding the same,none reported clinically severe insomnia.

Association between insomnia and severity of depression,anxiety and stress (Table 3)

| DAS	Insomnia Severity				Total	p - value
	No Clinically Significant Insomnia	Subthreshold Insomnia	Clinical Insomnia (Moderate Severity)	Clinical Insomnia (Severe)		
Depression						
Normal	**130 (92.8%)**	44	11	1	186	
Mild	**7 (5%)**	13	4	1	25	0.000^S
Moderate	**3 (2.1%)**	4	6	2	15	
Anxiety						
Normal	127	49	12	**0**	188	
Mild	9	8	1	**1 (25%)**	19	
Moderate	4	4	6	**1 (25%)**	15	0.000^S
Severe	0	0	1	**2 (50%)**	3	

| Extremely Severe | 0 | 0 | 1 | **0** | 1 | |

There is a strong association between insomnia severity with depression and anxiety.

50% of healthcare workers with severe insomnia had moderate depression whereas only 2% of healthcare workers with no insomnia had moderate depression.

50% of healthcare workers with severe insomnia had severe anxiety.But clinically severe insomnia was not reported in healthcare workers with no anxiety.
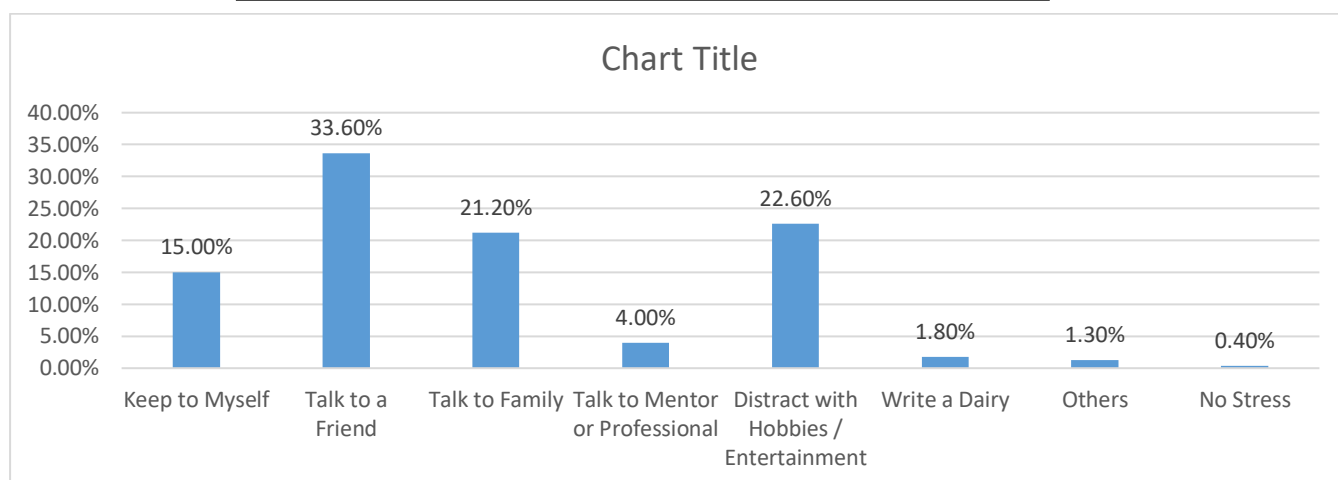
COPING

Prevalence of coping resilience(Figure -5)
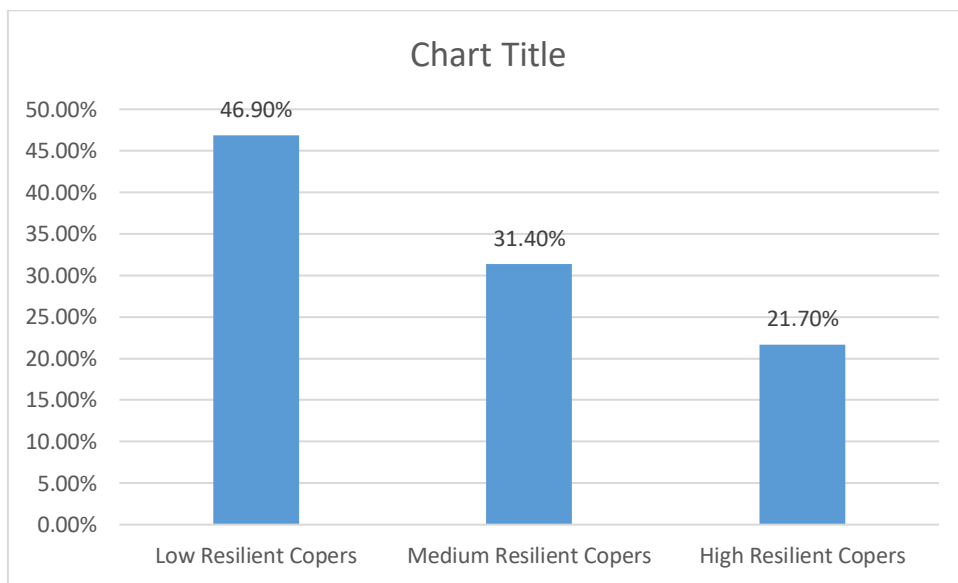
No significant association were drawn between coping resilience and study variables.

Prevalence of coping methods adopted (figure -6)

Chart Title

Category	Value
Keep to Myself	15.00%
Talk to a Friend	33.60%
Talk to Family	21.20%
Talk to Mentor or Professional	4.00%
Distract with Hobbies / Entertainment	22.60%
Write a Dairy	1.80%
Others	1.30%
No Stress	0.40%

No statistical significance could be drawn between different types of coping strategies adopted and the psychological distresses measured including depression,anxiety and stress.

DISCUSSION

The covid 19 pandemic has severely affected the mental health of the health care workers.The devastating consequences of the pandemic on all fronts has contributed largely towards the emergence of depression,anxiety and stress symptoms.

Prevalence and severity of depression,anxiety and stress

The present study revealed a prevalence of 17.1% of depression,16.7% of anxiety and 3.1% stress.The prevalence rates are in line with the findings obtained from a nationwide observational study by Wilson et al(13) revealing a prevalence of 11.4%,17.7% and 3.7% of depression,anxiety and stress respectively. A multicentre study was conducted by Patel et al(23) in Western India using DASS and has reported a prevalence of 18.54% of depression,19.87% of anxiety and 16.56% of stress.A systematic review and metaanalysis showed a prevalence of 15.97% for depression and 15.15% anxiety(24).A study done in singapore(25) using DASS unveiled a prevalence of 8.9% for depression,14.5% for anxiety and 6.6% for stress.

Higher prevalence rates are seen in a few studies.A study conducted in Maharashtra(26) showed a prevalence of 30.8% of depression,39% anxiety and 18.4% stress.A systematic review by Yuvraj Krishnamoorthy et al(27) demonstrated a prevalence of 25% depression,24% anxiety and 41% stress.Yet another Indian study by Simmi Gupta et al(19) displayed a prevalence of 28.2% depression and 35.2% anxiety

Variation in the prevalence values can be due to several reasons.Studies employed different evaluation tools and methodologies.Besides the working conditions to which the health workers are exposed,institutional support system,presence of comorbidities,shortage of manpower can all account for the varying prevalence rate..However the prevalence rate derived in the present study throws light on the adverse impact of the pandemic on the mental wellbeing of the health care workers.

Depression and study variables

The present study has analyses the association between severity of depression and variables related to demographic details as well as variables related to the concerns of the healthcare workers towards covid 19 infection.Our study revealed that there is no significant association between severity of depression and sociodemographic variables like age,gender,marital status,resident and family status.A study by Wilson et al(13) reported

female gender having a significant association with depression.Liang et al(28) showed a significant association between younger age and depression.

In our study interns,post graduates and MBBS doctors experiences higher severity of depression among the health care workers simulating the findings of the study by Anupam Das et al(29).The higher scores for depression can be explained by the long working hours,deprivation of sleep, having to shoulder greater responsibilities, direct contact with Covid positive patients,isolation and having to work away from their speciality.

Healthcare workers harboured several concerns regarding working during the Covid 19 pandemic.Our study analysed these concerns and the result revealed that concerns regarding getting infected with Covid 19 at work,taking the infection home and spreading to family members,developing severe complications,difficulty in work during the pandemic as well as regarding providing competent medical care if posted in a new area,had a strong association with severity of depression.Similar concerns were also revealed in the study by Ridhima sharma(30).Healthcare workers were duty bound to spend long hours in direct contact with covid 19 positive patients.Being health professional, they would be aware of all the risk involved in their work.Health care workers who had elderly parents in their care would be more badly affected regarding the fear of contagion.Constant worry and distress would have its toll on the efficiency at workplace.The above mentioned associations highlights the potential risk factors for the development of syndromal depression.

Anxiety and study variables

The work related variables that have significant association with severity of anxiety were contact with Covid19 patients at the workplace and accidental exposure to Covid 19 positive patients during the past week.The study also revealed that health care workers who were constantly harbouring concerns regarding developing severe complications if infected with covid 19 and in being unable to give one's best medical care due to the need to protect self,

were associated with greater levels of anxiety.The above mentioned risk factors were also encountered in several previous studies(31)(32)(33).

Health care workers are constantly seeing the suffering of the patients as well as witnessing deaths.These distressing events have an impact on the mental status of the workers.Besides ,they often come across their colleagues ,contracting the infection.All these stressful events will definitely evoke intense apprehension and hence are indicators for potential anxiety.

Stress and study variables

The study does not reveal any significant association between severity of stress and the study variables.As the healthcare workers are used to be exposed to trying circumstances in the form of shortage of staff,caring for large numbers of patients and managing emergency situations even prior to the pandemic,they are capable of putting up with the recent crises without getting stressed.

Insomnia and variables

In the present study,insomnia prevalence is estimated as 38.1%.The prevalence rate is comparable to the rates rangings from 35% to 38% reported in a systematic review conducted by Simmi gupta et al(19).Another study reveals a prevalence of 33.9%(34).On studying the variables,statistical significant association was seen with male gender,those staying with family,having designation including interns,postgraduates,MBBS doctors,having posted in direct care of covid 19 patients,having direct contact with covid 19 patient at work place and accidental exposure to covid 19 infection.

Constant stress at the workplace and fear of contacting the infection has imposed immense pressure on healthcare workers.On analyzing the concerns harbourned by the healthworkers, several key variables has exhibited statistically significant association with insomnia.The key variables are concerns regarging access to appropriate PPE,Getting infected with covid 19,Lack of rapid access to testing if they develop covid 19,taking the infection home and spreading to family members,developing severe complications if infected with covid 19,difficulty to work and concerns regarding not

able to give one's best medical care due to the need to protect self.The above mentioned key concerns serve as potentional predictors of insomnia.Zhang et al(35) identifies living in a rural area,risk of contact with Covid 19 patients and having a disease as risk factors for insomnia.Witnessing death and having to notify the same to the family added to the disturbed mindset leading on to insomnia.

Association of insomnia severity and DASS scores

Insomnia shows a strong association with depression and anxiety.Previous study shows that insomnia is a major risk factor for depression,anxiety and suicide(36,37).Healthcare workers presenting to outpatient department with complaints of insomnia should be cautiously evaluated as insomnia is a strong predictor of depression and anxiety as is evident from our study.Owing to the stigma associated in disclosing depressive or anxiety complaints,people are more comfortable in presenting their sleep disturbances.Hence physicians should be on the alert in evaluating cases of insomnia

Coping resilience and study variables

Most of the health care workers in our study were low resilient copers.Most common coping strategies adopted included talking to a friend.No significant association were drawn between coping resilience and study variables .Similarly no association was seen between different coping strategies adopted and DASS Scale scores.Previous studies has shown moderate to high levels of psychological resilience in those healthworkers who used strategies such as social support,prayers and leisure activities(38).This is in line with the present study.Necessary intervention is the need of the hour to enhance the resilience and mental wellbeing of the health care workers.

CONCLUSION

The overwhelming responsibilities faced by the healthcare workers in the present scenario of ever increasing number of Covid 19 patients,speaks aloud the need and urgency to address the psychological distress endured by the work force.

This study shows a high prevalence of depression,anxiety,stress and insomnia among health care workers during the covid 19 pandemic.Depression is associated with designations including interns,postgraduates and MBBS doctors.Concerns about getting infected with covid 19 at work,regarding taking infection home and spreading to family members,regarding developing severe complications if infected,concerns about stressful working hours and about providing competent medical care were strongly associated with depression.Anxiety was associated with contact with Covid 19 patients in the past week,accidental exposure to covid 19 positive patients in the past week and also associated with concerns regarding developing severe complication if infected and also with concerns regarding inability to give one's best medical care due to the need to protect self.Insomnia is also found to be associated with most of the concerns related to Covid 19 infection.Moreover,the study also reveals insomnia as a potential predictor for depression and anxiety.

Our study highlights the indispensable need to regularly screen the frontline health care workers for stress,anxiety and depression inorder to diagnose the milder forms of mental health issues even as they emerge.The study also throws light towards the importance of diagnosing insomnia which acts as a predictor of depression and anxiety.Hence necessary psychological interventions, social support networks, and effective strategies to help enhance resilience and coping among health care workers is the need of the hour.

LIMITATIONS—

The study is done in a single centre and therefore the result of the study cannot be generalized to the entire population.Only those with smartphones or computers could participate in the online survey and this contributed to selection bias.Besides the study has not assessed existing psychiatric comorbidities in the sample selected.Follow up studies could help assess the impact of essential psychological interventions.Longitudinal studies with larger sample size need to be done to validate the present findings.

SOURCE OF FUNDING

CONFLICT OF INTEREST

Nil

ACKNOWLEGEMENT

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