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RESEARCH ARTICLE

A CROSS SECTIONAL STUDY ON THE PREVALENCE OF PSYCHIATRIC COMORBIDITIES IN PATIENTS ADMITTED FOR COVID-19 IN A TERTIARY CARE HOSPITAL IN NEW DELHI

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Abstract

Context: The COVID-19 pandemic caused by the novel Corona virus has impacted more than 200 countries. COVID-19 patients are frequently isolated and quarantined due to high infectivity thus adding to further mental stress, uncertainty, anger, confusion, stress and insecurity. It has given rise to various psychological problems such as anxiety, depression, fear of isolation, fear of dying, feeling of helplessness, insomnia and many more. The aim of this study is to investigate stress, anxiety, and depression in COVID-19 positive patients during the Corona pandemic in India.

Aims: To study the prevalence of psychiatric comorbidities in patients admitted for COVID-19 in a tertiary care hospital in New Delhi.

Settings and Design: This cross-sectional study was conducted on 82 COVID-19 patients admitted in covid ward of Hamdard institute of medical sciences, Hakeem Abdul Hameed Centenary Hospital (HAHC)Hospital, New Delhi.

Subjects and Methods: The data was collected on socio demographic parameters and assessment was done using the depression, anxiety, and stress scale (DASS-21) questionnaire in COVID-19 admitted patients in the hospital. Statistical Analysis Used: SPSS 16 version for Microsoft Windows.

Results: The mean age of the patients was 52.21 ± 12.23 years. 59.8% patients (N=49) were men and 40.2% (N=33) were women. Depression was more 40 to 60 years age group (12%). (P=0.333). Anxiety and stress were more in age group of 60 years and above. (14%) (P=0.313) and (14%) (P=0.011) respectively. Depression was more in female patients. (P=0.039) while anxiety and stress were also found in male patients. (P=0.014) and (P=0.148) respectively Anxiety and stress was more common in patients with less oxygen saturation while depression was more in patients with more higher oxygen saturation levels.

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Conclusions: COVID-19 patients score higher on comorbid anxiety and depression. Mild to Moderate level of depression is commonly seen among female, married, less educated, middle age and above group and low oxygen saturation. Anxiety is more amongst male, married, less educated and elderly group and stress is more common in male, widow, tobacco smokers and patients with less oxygen saturation in COVID-19 patients.

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Introduction: -

The deadly SARS-CoV-2 virus continues to disrupt public life across the world even more than one year since COVID-19 was declared a pandemic on March 11, 2020 by World Health Organization (WHO). India is currently reeling under the effect of the 2nd wave. COVID-19 infection has impacts on both, physical well-being of the patients as well as on their mental health.(1) A variety of psychological symptoms have been observed in patients, like, emotional distress, depression, mood swings, fear of being left alone or being away from family, fear of dying, feeling of helplessness, sleep disturbances, and anxious preoccupation.(2) Studies which have been conducted during this pandemic have recorded a high prevalence of moderate-to-severe depressive and anxiety symptoms among the general population as well as among the infected or suspected COVID-19 patients.(3) Research studies conducted earlier have focused on COVID-19-related mental health issues in the general population and health-care workers.(4)Research data are still limited on mental health effects of COVID-19 in infected patients. Therefore, our study was planned to assess the prevalence of psychological distress in COVID-19 patients in the form of anxiety, depression and stress to raise the understanding and awareness on importance of addressing mental health issues in these patients.

Aim: -

To study the prevalence of psychiatric comorbidities in patients admitted for COVID-19 in a tertiary care hospital in New Delhi

Objectives: -

1. To estimate the socio demographic profile of patients diagnosed with COVID-19, admitted in HAHC hospital.
2. To estimate the prevalence of psychiatric comorbidities in patients diagnosed with COVID-19, admitted in HAHC hospital.

Materials & Methods: -

The study will be conducted in Department of Psychiatry, HAHC Hospital, and New Delhi.

Study Design

It will be a cross sectional single assessment study conducted in the hospital.

Sample

The sample will be obtained from the patients admitted in COVID wards of HAHC Hospital, New Delhi.

Inclusion criteria

1. Patients diagnosed with COVID-19 (positive reverse transcriptase, polymerase chain reaction (RT-PCR) assay of nasopharyngeal swabs) and admitted in COVID ward of HAHC Hospital, New Delhi.
2. Patients of any sex of ages 18 years and above.
3. Patients having stable consciousness states.
4. Patients capable of understanding the questionnaire.
5. Patients willing to give informed consent.

Exclusion criteria

1. Patients with preexisting psychiatric illness.

Tools and Instruments

1. Semi structured proforma specially designed for the study for demographic details like gender, age, education, religion, marital status, etc.
2. DASS 21 scale (Hindi & English versions):The Depression, Anxiety, and Stress Scales were developed by researchers at the University of New South Wales (Australia). It is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. The reliability scores of the scales in terms of Cronbach's alpha scores rate the Depression scale at 0.91, the Anxiety scale at 0.84, and the Stress scale at 0.90 in the normative sample. The means and standard deviations for each scale are 6.34 and 6.97 for depression, 4.7 and 4.91 for anxiety, and 10.11 and 7.91 for stress, respectively.(5)

Procedure

All patients who fulfil the inclusion criteria will be explained about the purpose of the study and a written informed consent will be obtained. Patients' demographic data will be collected through a semi structured proforma. Patients will be assessed for depression, anxiety and stress using DASS 21 scale.

Statistical Analysis

The data will be analysed by using descriptive statistics. Frequency counts will be obtained for all discrete variables such as age, gender, occupation etc. Mean and standard deviation will be computed for all continuous variables e.g. age, etc.

Ethical Consideration

1. Written informed consent of participants will be obtained prior to induction.
2. No invasive procedure will be carried out as a part of the current study.
3. Patient treatment will not be modified as part of the study.
4. No additional benefits will be given to the participants.
5. Confidentiality of the information obtained will be maintained.
6. Participants have the right to withdraw consent at any stage of the study. This would not affect their treatment in any way.

Results: -

General characteristics and prevalence of anxiety and depressive symptoms

A total number of 82 patients participated in the study. The questionnaires were filled completely by all of them (response rate 100%). The mean age of the patients was 52.21 (SD = 12.23) years. 59.8% (N=49) were men and 40.2% (N=33) were women. 93.9% (N=77) of the participants were married, 2.4%(N=2) were single and 3.7% (N=3) were widowed. 65.8% (N=72) cases were employed, 26.8% (N=22) were house-maker and 7.3% (N=6) were unemployed. 7.3% (N=6) were illiterate and 45.2% (N=37) studied up to high school, 11 %(N=9) had a diploma and the rest had a university degree 36.6%(N=30).7.3%(N=6) belonged to lower socioeconomic status(Table 1)

Table 1: - Socio Demographic Profile of Patients.

Socio-Demographic Variables		N=82 n (%)
Age	<40years	13 (15.9)
	40 to 60 years	48 (58.5)
	>60years	21(25.6)
Gender	Female	33 (40.2)
	Male	49 (59.8)
Marital Status	Single	2 (2.4)
	Widowed	3 (3.7)
	Married	77 (93.9)
Socio-economic status	Lower	6 (7.3)
	Upper lower	22 (26.8)
	Upper middle	14 (17.1)

	Lower middle	30 (36.6)
	Upper class	10 (12.2)
	Illiterate	6 (7.3)
Education	Under diploma	42 (51.2)
	University	34 (41.5)
	Unemployed	6 (7.3)
	Unsklled	7 (8.5)
	Skilled	7 (8.5)
Occupation	Semiskilled	10 (12.2)
	Semi professional	13 (15.9)
	Professional	17 (20.7)
	Housewife	22 (26.8)
	Semi professional	13 (15.9)
	Professional	17 (20.7)
	Housewife	22 (26.8)
Spo2 Grade	Less than 95	15 (18.3)
	More than 95	67 (81.7)
Substance Abuse	No Substance use	58 (70.7)
	Tobacco	19 (23.2)
	Alcohol	4 (4.9)
	Others	1 (1.2)
Comorbid Medical Condition	Hypertension	8 (9.8)
	Diabetes mellitus	15 (18.3)
	Hypothyroidism	3 (3.7)
	No other medical illness	37 (45.1)
	Respiratory illness	16 (19.5)
	Coronary artery disease	2 (2.4)
	More than 1 medical comorbidity	1 (1.2)

23.2%(N=19) of the patients had a history of substance use. 15.9%(N=13) had a history of cigarette smoking, only 4.9%(N=4) alcohol consumption and 2.4%(N=2) were tobacco chewer.The most common coexisting illnesses were hypertension 9.8%(N=8), diabetes mellitus 18.3%(N=15), Hypothyroidism 3.7%(N=3), coronary artery disease 2.4%(N=2) and 19.5%(N=16) had preexisting respiratory illness 1.2%(N=1) had more than 1 comorbidities while 45.1% (N=37)had no comorbid medical illness.81.7% (N=67)patients had Spo2 levels less than 95% and18.3%(N=12) had more than 95 Spo2 levels saturation.

Table 2:- Correlation table with Socio-demographic variables and various clinical parameters with DASS score.

Table 2: Correlation table with Socio-demographic variables and various clinical parameters with DASS score

Socio Demographic Variable	Depression Grade							Anxiety Grade							Stress Grade				
	Normal (0-9)		Mild (10-13)		Moderate (14-20)		P value	Normal (0-7)		Mild (8-9)		Moderate (10-14)		P value	Normal (0-14)		Mild (15-18)		P value
Age Group																			
<40Years	13	(17%)	0	(0%)	0	(0%)	0.333	13	(100%)	0	(0%)	0	(0%)	0.313	13	(100%)	0	(0%)	0.011
40-60 Years	42	(55%)	3	(6%)	3	(6%)		42	(88%)	3	(6%)	3	(6%)		48	(100%)	0	(0%)	.
>60 Years	21	(28%)	0	(0%)	0	(0%)		18	(86%)	3	(14%)	0	(0%)		18	(86%)	3	(14%)	
Gender																			
Female	30	(91%)	3	(9%)	0	(0%)	0.039	30	(91%)	0	(0%)	3	(9%)	0.014	33	(100%)	0	(0%)	0.148
Male	46	(94%)	0	(0%)	3	(6%)		43	(88%)	6	(12%)	0	(0%)		46	(94%)	3	(6%)	
Marital status																			
Single	2	(100%)	0	(0%)	0	(0%)	0.981	2	(100%)	0	(0%)	0	(0%)	0.000	2	(100%)	0	(0%)	
Married	71	(92%)	3	(4%)	3	(4%)		71	(92%)	3	(4%)	3	(4%)		77	(100%)	0	(0%)	.000
Widow	3	(100%)	0	(0%)	0	(0%)		0	(0%)	3	(100%)	0	(0%)		0	(0%)	3	(100%)	
Socio-economic status																			
Lower class	3	(50%)	0	(0%)	3	(50%)	0.000	3	(50%)	3		0	(0%)	0.000	6	(100%)	0	(0%)	0.004
Upper lower	19	(86%)	3	(14%)	0	(0%)		19	(86%)	0		3	(14%)		22	(100%)	0	(0%)	
Lower middle	30	(100%)	0	(0%)	0	(0%)		30	(100%)	0		0	(0%)		30	(100%)	0	(0%)	
Upper middle	14	(100%)	0	(0%)	0	(0%)		11	(79%)	3		0	(0%)		11	(79%)	3	(21%)	
Upper class	10	(100%)	0	(0%)	0	(0%)		10	(100%)	0		0	(0%)		10	(100%)	0	(0%)	
Education																			
Illiterate	3	(50%)	0	(0%)	3	(50%)	0.000	3	(50%)	3	(50%)	0	(0%)	0.000	6	(100%)	0	(0%)	0.000
Primary school	11	(79%)	3	(21%)	0	(0%)		11	(79%)	0	(0%)	3	(21%)		14	(100%)	0	(0%)	
Middle school	10	(100%)	0	(0%)	0	(0%)		10	(100%)	0	(0%)	0	(0%)		10	(100%)	0	(0%)	
High school	13	(100%)	0	(0%)	0	(0%)		13	(100%)	0	(0%)	0	(0%)		13	(100%)	0	(0%)	
Diploma	9	(100%)	0	(0%)	0	(0%)		6	(67%)	3	(33%)	0	(0%)		6	(67%)	3	(33%)	
Graduate	10	(100%)	0	(0%)	0	(0%)		10	(100%)	0	(0%)	0	(0%)		10	(100%)	0	(0%)	
Professional degree	20	(100%)	0	(0%)	0	(0%)		20	(100%)	0	(0%)	0	(0%)		20	(100%)	0	(0%)	
Occupation																			
Unemployed	6	(8%)	0	(0%)	0	(0%)	0.000	6	(100%)	0	(0%)	0	(0%)	0.002	6	(100%)	0	(0%)	0.011
Unskilled	4	(5%)	0	(0%)	3	(100%)		4	(57%)	3	(43%)	0	(0%)		7	(100%)	0	(0%)	
Semiskilled	10	(13%)	0	(0%)	0	(0%)		10	(100%)	0	(0%)	0	(0%)		10	(100%)	0	(0%)	
Skilled	7	(9%)	0	(0%)	0	(0%)		7	(100%)	0	(0%)	0	(0%)		7	(100%)	0	(0%)	
Semi- Professional	13	(17%)	0	(0%)	0	(0%)		10	(77%)	3	(23%)	0	(0%)		10	(77%)	3	(23%)	
Professional	17	(22%)	0	(0%)	0	(0%)		17	(100%)	0	(0%)	0	(0%)		17	(100%)	0	(0%)	
Housewife	19	(25%)	3	(100%)	0	(0%)		19	(86%)	0	(0%)	3	(14%)		22	(100%)	0	(0%)	
SPO2 saturation grade																			
> 95%	61	(91%)	3	(4%)	3	(4%)	0.484	61	(91%)	3	(4%)	3	(4%)	0.087	67	(100%)	0	(0%)	0
< 95%	15	(100%)	0	(0%)	0	(0%)		12	(80%)	3	(20%)	0	(0%)		12	(80%)	3	(20%)	
Comorbid Medical Condition																			
NO	34	(92%)	3	(8%)	0	(0%)	0.116	34	(92%)	0	(0%)	3	(8%)	0.196	37	(100%)	0	(0%)	0.016
Hypertension	8	(100%)	0	(0%)	0	(0%)		8	(100%)	0	(0%)	0	(0%)		8	(100%)	0	(0%)	
Diabetes	15	(100%)	0	(0%)	0	(0%)		12	(80%)	3	(20%)	0	(0%)		12	(80%)	3	(20%)	
Hypothyroidism	3	(100%)	0	(0%)	0	(0%)		3	(100%)	0	(0%)	0	(0%)		3	(100%)	0	(0%)	
Coronary artery disease	2	(100%)	0	(0%)	0	(0%)		2	(100%)	0	(0%)	0	(0%)		2	(100%)	0	(0%)	
> 1 disorder	14	(82%)	0	(0%)	3	(18%)		14	(82%)	3	(18%)	0	(0%)		17	(100%)	0	(0%)	
Substance abuse																			
No	57	(90%)	3	(5%)	3	(5%)	0.924	57	(90%)	3	(5%)	3	(5%)	0.357	63	(100%)	0	(0%)	0.001
Smoking Tobacco	13	(100%)	0	(0%)	0	(0%)		10	(77%)	3	(23%)	0	(0%)		10	(77%)	3	(23%)	
Alcohol	4	(100%)	0	(0%)	0	(0%)		4	(100%)	0	(0%)	0	(0%)		4	(100%)	0	(0%)	
Chewable Tobacco	2	(100%)	0	(0%)	0	(0%)		2	(100%)	0	(0%)	0	(0%)		2	(100%)	0	(0%)	
Other family member affected with covid19 infection																			
Yes	11	(79%)	3	(21%)	0	(0%)	0	8	(57%)	3	(21%)	3	(21%)	0	11	(79%)	3	(21%)	0
No	65	(96%)	0	(0%)	3	(4%)		65	(96%)	3	(4%)	0	(0%)		68	(100%)	0	(0%)	

Among the 82 patients studied, 7.4% (N=6) had high score on depression grade on DASS scale. 3.7% (N=3) had mild and 3.7% (N=3) had moderate score.11% (N=9) of them had a high score on anxiety grade on DASS scale. 7.3% (N=6) had mild and 3.7% (N=3) had moderate score.3.7% (N=3) of them had a high score on stress grade and mild severity on DASS.

Depression was more 40 to 60 years age group (12%). (P=0.333) Anxiety and stress was more in age group of 60 years and above. (14%) (P=0.313) and (14%) (P=0.011) respectively.

Depression was more in females (9%) than male (6%) patients. (P=0.039) Anxiety was found in male patients (12%) than female patients (9%) (P=0.014) and stress was also found in male patients (6%) and none of the female patients scored on stress grade. (P=0.148)

Depression and anxiety were more in married patients. (P=0.981) and (P=0.000) respectively. Stress grade was more in widow. (P=0.000)

The higher rate of depression was found in patients with more than one medical comorbidity which was not statistically significant (p>0.05) Anxiety and stress was more common in patients with less than 95% SPO2 levels than those with more than 95% Spo2 levels (20%vs 8% and 20%vs 0% respectively). Moreover, total anxiety score was lesser in patients with low SPO2 levels which was statistically significant (P=0.012) Depression was more in patients with more than 95% SPO2 levels than those with more than 95% SPO2 levels (8%vs 0%)

Substance abuse particularly tobacco smoking was seen more in patients without depression as compared to those with depression. (P=0.924) Similarly it was more in patients without anxiety as compared to those with anxiety. (P=0.357) Out of all anxious patients half of them took substance in form of tobacco smoking. (P=0.924)

Stress was higher in tobacco smokers as compared to patients without any substance abuse. (P=0.001)

21% patients who had family members also affected with COVID-19 infection developed depression, while only 5 % developed depression that had COVID-19 unaffected family members.

Depression, anxiety and stress were more in those who had family members affected with COVID-19 infection (21% vs 5%, 42%vs 4 % and 21% vs 4% respectively) and was statistically significant(P<0.001).

Discussion: -

Our primary goal in this study was to examine the levels of depression, anxiety, and stress in the COVID-19 patients who were admitted in hospital during the pandemic. (6–8)

During the initial stage of the pandemic many studies reported a high prevalence of moderate to severe depressive and anxiety symptoms among the general population. Some of the frequently observed factors in various studies are being married or divorced, fear of contacting infection or death, disturbed sleep, lack of support, loneliness, and lower oxygen saturation in COVID-19 patients with anxiety and depression. (6,7)

The mean age of the hospitalized patients with COVID-19 in our study was 52.21± 12.23 years. In some other studies, most of the hospitalized patients were in the age range of 31–70 years (75.97%) (6)(7)(8)

Statistically significant depression was more found in females (P=0.039) and anxiety more in males (P=0.014) with admitted COVID-19 infection. In addition to this stress was found more in male. (P=0.148). Mild depression was seen commonly in females (9%) than male patients (0%) whereas moderate depression was more in males (6%) as compared to females (0%) Mild anxiety was seen commonly in males (12%) than female patients (0%) whereas moderate to severe level of anxiety was more in females (9%) as compared to males (0%) In contrast one Indian study found (60%) females patients had mild anxiety levels (28.75%) in male patients whereas (71.25%) of male patients had moderate to severe level of anxiety as compared to females (40%).(1) In Indian context, it is usually seen that a female is more concerned and apprehensive as she has fear of passing infection to her kids or other vulnerable family members.(1)

As we know that men is main bread earner and women are usually the key caretaker at home in Indian setup. So if women in the house contract infection and are isolated the whole care and emotional support gets disturbed. Similarly if male is affected financial situation of the house is mostly affected.(1,9).Many researchers have supported the statement that severity level of anxiety and depressive symptoms are more in admitted patients. (1,10)

Travel restrictions, home isolation, financial constraints and consequent social stigma can make patients vulnerable for the development of depressive and anxiety symptoms. Due to lockdown and decline of the economic growth in the countries, workers receive less salary and some even lose their job. Once they get infected due to physical morbidity financial situation further worsen. Similar findings have been found in other studies(3,9,11–15)

Low socioeconomic status (SES) generally leads to poorer access to health care and thus more psychiatric morbidity. (9) Our study found an inverse relationship between depression and socioeconomic status, mostly belonged to upper lower or lower class and was statistically significant (P< 0.001). Anxiety was increased in unskilled worker, semiprofessional group, less than primary school educated and lower socioeconomic group and was statistically significant. (P< 0.001) This is supported by other studies which confirmed inverse relationship between socioeconomic levels and education, with depression. (6–8) In contrast many studies have shown a controversial association SES and depression. (8,9) This is also consistent with other researchers studies as we found higher rate of depression in unskilled workers, less then primary school educated groups, and housewives which was statistically significant (p<0.001).

The COVID-19 pandemic has raised concerns about mental health issues and economic stability worldwide. This economic turbulence has led to various mental health disorders, including depression and anxiety(16,17) Thus, it is essential to effectively manage existing resources and social capital so as to lighten the burden of economic crisis in the country. (18,19)

The social crisis created by the COVID‑19 pandemic might increase inequality, social exclusion, discrimination, and unemployment in the patients. (1) Many studies have suggested a protective role for marriage in depression and anxiety (20), which are in contrary to our finding with higher rate of depression and anxiety in married COVID-19 patients. Our data is also consistent with psychiatric manifestations of other severe corona virus infections including Middle East respiratory syndrome and severe acute respiratory syndrome-1 (SARS).

We found a positive correlation between stress, anxiety and depression with patients with COVID-19 positive family members which was statistically significant. Also married patients were more depressed while anxiety was more in married and widow group which was statistically significant. (P<0.001) Stress was more in widow group and was statistically significant. (P<0.001) COVID-9 infection in family members especially spouse could have been the reason for stress, anxiety and depression. Stress was found in only a few tobacco smokers (23%vs77%) and was found to be statistically significant. (P<0.001) Mild anxiety was also found in few tobacco smokers (23%vs77%) but not statistically significant. Stress, depression and anxiety were not seen in tobacco chewer, alcohol and other substance abusers.

There is paucity of studies on epidemiology of the COVID-19 (8). To explore the effectiveness of common protective factors in this field requires extensive research. The role of environmental and social factors in this regard seems important. Given the complexity of the conditions associated with COVID-19, relationship between anxiety, depression and stress; and marriage among these patients requires further evaluation.

We investigated various underlying diseases or conditions in people infected with SARS-CoV-2 in hospitalized patients. Interestingly we found less stress, anxiety and depression in patients with underlying physical comorbidities as compared to those who did not have. While various underlying diseases such as hypertension, diabetes mellitus, hyperlipidemia, ischemic heart disease, asthma and many more were seen in other studies with higher prevalence.(21,22)we found both increased anxiety and stress levels in only a few diabetic patients (20%vs80%) out of all patients with comorbid medical illness. While more than 1 comorbid medical illness was seen in only a few depressed patients (18% vs 82%) However vast difference in sample size makes it difficult to compare the prevalence. Physical illnesses can weaken the immune system and thus can further exacerbate COVID-19 disease and give rise to various complications.(21,22)Hence it is essential to pay attention to this issue however could be challenging at the same time.(23) Further studies with preferably larger sample sizes are necessary to explore their impact.

It is seen that various factors during the pandemic contributed to stress and long term negative psychological implications among COVID-19 patients. This included isolation, quarantine conditions, insufficient or negative reports from media and stigmatization. (24)

A prospective study following hospitalization showed lover prevalence of depression and anxiety in the post illness phase (12.3% and 10.5%, respectively) while another study Discharge to home did not lead to any significant improvement in psychiatric symptoms. A significant minority of patients experienced acute stress disorder symptoms as well although these were mainly mild to moderate. (7) This is in contrast to existing data, such as that presented by Mazza et al., (25) which focused on patients in the post hospitalization period.(7)

We found no correlation between SPO2 levels and depression while anxiety was positively correlated with lower oxygen saturation i.e., SPO2 less than 95%. [(20% vs. 8 %); (P=0.087)]. 20% who had less than 95%SPO2 patients also had high stress score which was statistically significant. (P<0.001) A systematic review and meta-analysis conducted by Rogers et al reported 32.6% depression rate and 35.7% anxiety rates in covid19 patients and was also positively associated with lower oxygen saturation. (26)

One of the main clinical indexes for assessing the severity of patients with COVID-19 is oxygen saturation levels. (27) Patients with severe illness are more likely to be anxious. A study reported 11.1% of participants with oxygen saturation 93% to have severe disease. More psychological interventions should be given to critically ill patients.(28)

Many other standard psychiatric screening tools such as Hospital Anxiety and Depression Scale, the Patient Health Questionnaire (for depression), the Generalised Anxiety Disorder Scale (for anxiety), the Confusion Assessment Method (for delirium), and the Primary Care Post Traumatic Stress Disorder Screen for DSM-5 (for post traumatic stress disorder) have been used for screening for common psychiatric manifestations of COVID-19 in the past. These tools can help screen the patients in need of specialist consultation. For ongoing medical complications consultation-liaison psychiatrist are gold standard choice.(29)

Our study represents exploration and understanding of psychiatric complications of COVID-19 infection. One of the limitations of our study was lack of data of severe psychiatric complications such as psychosis and persistent agitated delirium of COVID-19.(30–32)Further studies are required for addressing this issue. We suggest the need for systematic psychiatric screening for individuals diagnosed with COVID-19 infection. Despite many limitations in conducting research on infected with COVID-19, we were able to maintain progress in our data collection. Small sample size and inclusion of only admitted patients were some other limitations of our study.

Disclosure:
The authors have no conflicts of interest to disclose.

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Conclusions: -

COVID-19 infection has adversely affected the mental health of the patient as well as physical, social, and occupational domain of life. Stress, Anxiety and depression have been seen frequently among the infected. Further research is necessary to understand the epidemiology of psychiatric symptoms among patients with COVID-19 infection. Isolation, loneliness, loss of income and fear of re-infection or spread of worsen the stress, anxiety and. The understanding and realization of association of anxiety and depressive symptoms in COVID-19 infected patients is essential for early screening and timely psychiatric intervention for a better functional outcome of the patient.

Early recognition and intervention in form of psychiatric medications and psychological interventions can be helpful in decreasing burden of psychiatric morbidity. Medication, supportive psychotherapy, and crisis management for short term management and Behavioral management such as Cognitive Behavior Therapy and family therapy can be planned for long run.

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