



Review Article

TO STUDY ANXIETY AND DEPRESSIVE SYMPTOMS IN THE HOSPITALISED PATIENTS DURING OUTBREAK OF COVID -19 PANDEMIC IN F.H. MEDICAL COLLEGE, AGRA

Varsha yadav¹., S.S. Gupta²., Vineeta arya³., A.K. Gupta⁴., J.P. Narayan⁵ and Dwarika verma⁶

^{1,2,3,4}Department of Medicine, F.H. Medical College, Agra

⁵Department of Psychiatry, F.H. Medical College, Agra

⁶Department of Psychiatry, F.H. Medical College, Agra

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ABSTRACT

BACKGROUND: COVID-19 pandemic affected adversely public mental health. We assessed the current mental illness in hospitalised patients. **INTRODUCTION:** The Coronavirus disease (COVID-19) spread all over the world since its emergence in late December 2019 in China. WHO declared it pandemic on 11 March 2020. People with positive covid rtPCR test or exposed to covid-19 patients were isolated and hospitalised till the two consecutive negative rtPCR report. This causes depression, anxiety, sleep disorder, suicidal tendency and other psychotic symptoms as reported in some recent epidemiological studies^{1,2,3}. This study investigated the effect of pandemic on mental health issues in COVID-19 positive/suspected patients hospitalised in F.H. Medical College and Hospital during COVID -19 pandemic. **AIM:** To study Anxiety and Depressive symptoms in hospitalised patients during outbreak of COVID -19 pandemic. **MATERIAL AND METHODS:** The study was conducted during first wave of COVID 19 pandemic from 28 March 2020 to 31 March 2021. We assessed the variables on current mental illness and completed two standardized questionnaires: Generalised Anxiety Disorder-7 (GAD-7) and Patient Health questionnaire-7 (PHQ-7). A total of 1050 patients were studied with age ranging from 18 years to 76 years with mean age of 28+/-8 years. All data were analysed using IBM, SPSS statistics and $p < 0.05$ was considered statistically significant. **RESULT:** Our study showed higher level of Anxiety and Depression in young patients as compared to older patients. Economic recession and negative message on social media further translated in the form of Anxiety and Depression. **CONCLUSION:** COVID -19 pandemic, subsequent nationwide lockdown, mandatory quarantine measures taken by government and negative media coverage have created fear among public against COVID-19. This was probable reason for affecting the mental health wellbeing of hospitalised patients.

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INTRODUCTION

The Corona virus disease (COVID-19) spread all over the world since its emergence in late December 2019 in China. WHO declared it pandemic on 11 March 2020. To prevent the outbreak of infection, government of India declared nationwide lockdown in first week of April 2020. It was mandatory to stay home and shut down all of the businesses, schools and public places except for emergency workers like doctors, medical staff and police personnel. The general public was allowed to leave their home to obtain necessities for a restricted period. Persons with the history of travel or exposure were kept in hospital in isolation ward or quarantine ward till two consecutive RT-PCR reports were negative. Strict isolation measures caused psychological impact on

people kept in isolation ward or quarantine ward⁴. Some recent epidemiological studies have reported depression, anxiety, sleep disorder, suicidal tendency and psychotic symptoms among general population^{5,6,7,8,2,9}.

The national mental health survey 2015-16 conducted by NIMHANS, Bangalore found lifetime prevalence of any mental morbidity at 13.6%¹⁰. The present study investigated the effect of pandemic on mental health issues on the patients hospitalised in F.H. Medical College and Hospital during covid -19 pandemic.

MATERIAL AND METHODS

The study was conducted during first wave of covid 19 pandemic from 28 March 2020 to 31 March 2021. A total of

*Corresponding author: Varsha yadav

Professor, Department of Medicine, F.H. Medical college, Agra

1217 patients were admitted during this period. 167 patients were excluded from study having associated comorbidities, severe physical illness and patients requiring life support i.e., mechanical ventilation. One patient committed suicide in the isolation ward and hence excluded. We assessed the variables on current psychiatric disorder and completed two standardized questionnaires: Generalised Anxiety Disorder-7 (GAD-7) and Patient Health questionnaire-7 (PHQ-7). We assessed them after 5th day of hospital stay and mean duration of hospital stay 20 +/- 5 days (16 – 30 days). A total of 1050 patients were studied with ages ranging from 18 years to 76 years with mean age of 28 +/- 8 years.

ETHICS STATEMENT

Patients were clearly explained about the study and could quit from study without explaining reasons for doing so. MEASURES: Demographic variables included were age, sex, education level, marital status, occupation, living with family or alone, specifically patients were asked about views over strict lockdown. Further information related to COVID-19 were collected to identify the stressors during hospitalisation, fear of infection and staying away from family during hospital stay, frustration of losing routine work, inadequate basic needs and financial loss. Out of above six questions, one point was for “strongly disagree” and five for “strongly agree”. Anxiety and depression symptoms assessment Generalised Anxiety Disorder-7 GAD-7 scale was used to assess the patient’s anxiety symptoms based on the seven DSM criteria for GAD. Using four item rating scale ranging from 0 (not at all) to 3 (almost every day). The total anxiety scale was divided into 0-5 (minimal anxiety), 6-10 (mild anxiety), 11-15 (moderate anxiety) and 15-21 (severe anxiety). Patients Health Questionnaire-9 PHQ-9 was used to measure depressive symptoms. A total score of 0-4 means (minimal depression), 5-9 (mild depression), 10-14 (moderate depression), 15-19 (moderately severe depression) and 20-27 (severe depression).

STATISTICAL ANALYSIS

All data were analysed using IBM, and SPSS statistics and p value < 0.05 was considered statistically significant.

RESULT

The sociodemographic characteristics of the included patients show demographic characteristics. Table 1 shows demographic characteristics in this study (n= 1050). 18 to 25 years age group has the maximum number of patients (n=388, 37%) followed by 36-45 years (n= 207, 19.70%) and more than 55 years (n= 205, 19.50 %) and 46-55 years (n=130, 12.38%) and 26-35 years (n= 120, 11.42%) respectively. There was n= 735 (70%) males and n= 305 (30%) females. 375 patients (34%) had high school degrees and the rest (n=693) 66% had completed graduate degrees. 966 patients (92%) were staying with family and 84 patients (8%) were staying alone i.e., away from family. Regarding employment status n= 252 (24%) were doing no job, 567 patients (54%) had jobs but were interrupted due to the pandemic, while rest of the patients did not lose job due to pandemic. Hospital stay was less than 16 days in 126 patients (12%) and it was more than 16 days in 924 patients (88%). Out of 1050 patients only one patient was having psychiatric illness (depression) before hospitalisation but was on irregular medication during hospital stay. Benzodiazepines were prescribed to 388 patients (37%). All

the patients were counselled by psychiatrist throughout the hospital stay. Younger patients had more depressive and anxiety symptoms with mean score 32% and 10% than older age group.

Table 1 Sociodemographic features of patient’s variable categories

Variables	Variable categories	n (%)
Age group (years old)	17-25	388(37%)
	26-35	120(11.42%)
	36-45	207(19.70%)
	46-55	130(12.38%)
	>55	205(19.50%)
Mean age (years old)	28 +/- 8	
Gender	Male	735(70%)
	Female	305(30%)
Educational level	Matric	357(34%)
	Graduate	693(66%)
Family status	Family	966(92%)
	Alone	84(0.8%)
	No	252(24%)
Employment status	Yes, interrupted due to covid	567(54%)
	Yes, work from home	63(0.6%)
	Yes, continue to work as before pandemic	168(16%)
Hospital stay (days)	<16 days	126(12%)
	>16 days	924(88%)
Psychiatric illness prior to admission.	Yes	1(0.09%)
	No	1049 (99.01%)
Benzodiazepine use during hospitalisation	Yes	388(37%)
	No	662(63%)

Correlation between variables

In our study, it was observed significant negative correlation between age and anxiety (P = < 0.001) and between age and depression scoring (P = < 0.001). Younger patients showed higher anxiety and depression as compared to older patients (P value < 0.05) shown in fig 1 and 2. There was significant level of anxiety and depression in patients who stayed for longer period in hospital i.e., more than 16 days.

Table 2 Comparison of patients divided into groups in terms of PHQ-9 and GAD-7

Variables	Variable categories	PHQ-9	GAD-7
Age group (years old)		Depression (M+/- SD)	Anxiety (M+/-SD)
	17-25	108(32%)	27(18%)
	26-35	54(16%)	7(02%)
	36-45	64(19%)	10(03%)
	46-55	37(11%)	3(01%)
	>55	24(07%)	3(01%)
	P value	P<0.05	P<0.05
Employment status	No	93(20%)	27(8%)
	Yes, interrupted after COVID	54(16%)	7(2%)
	Yes, continue work from home	54(16%)	9(2.67%)
	Yes, continue as before pandemic	79(23.4%)	4(1, 18%)
Duration of hospital stay			
	<16 days	57(16.86%)	4(1.18%)
	>16 days	231(63.34%)	46(13.62%)
	P value	P=<0.001	P=<0.01

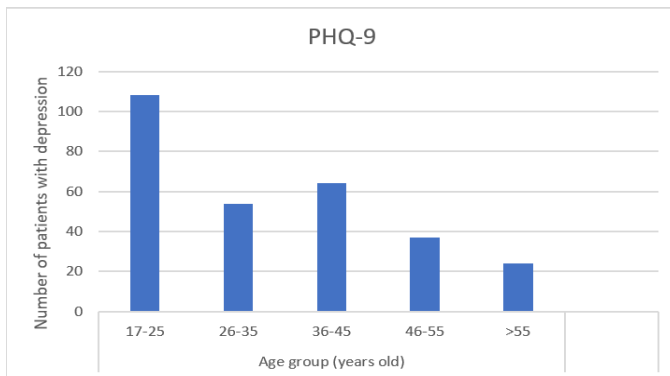


Fig. 1 Shows number of patients with depressive symptoms in different age group using Patients Health Questionnaire-9 (PHQ-9)

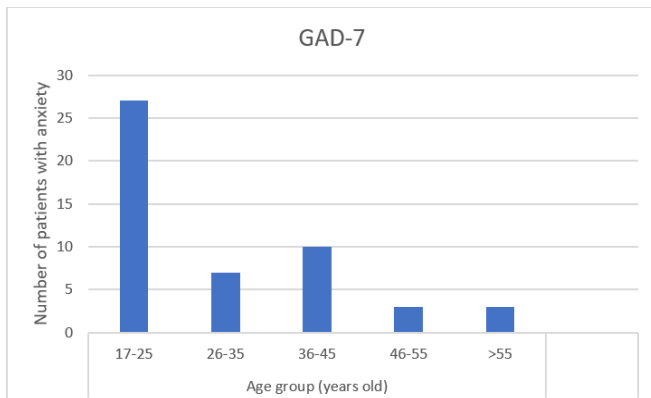


Fig. 2 Shows number of patients with anxiety symptoms in different age group using Patients Generalised Anxiety Disorder-7 (GAD-7)

DISCUSSION

The data of this study suggests that anxiety and depression were more in patients who spent longer time in hospital. Probable explanation for this cause is fear of covid-19 infection due to lack of knowledge about disease^{5,6}. With regard variables related to the psychological impact, we observed that confinement in hospital, economical loss and negative information's about COVID -19 were the main reasons for development of anxiety and depression. Panic in society was also responsible for consequences of mental wellbeing during COVID-19 outbreak^{11, 12, 13}.

Most of the patients (67%) showed no change or positive change in behaviour during hospitalisation. This kind of improvement might be due to emotional regulation for better coping with the fear of COVID-19 infection and better adaptive behaviour to mental health burden as a result of regular counselling by physician and psychiatrist team^{14, 15, 16}.

Limitation of our study that estimation of anxiety and depressive symptoms were done in beginning of pandemic and was based on hospitalised patients in the ward which was non-conducive environment for an unbiased interview⁷. Therefore, community based longitudinal study will be helpful to understand the trajectories of mental health during pandemic of covid -19 infection.

CONCLUSION

COVID -19 pandemic, subsequent nationwide lockdown, mandatory quarantine measures taken by government and

negative media coverage have created panic and fear among public against COVID-19. This was the probable reason for affecting the mental health wellbeing of the hospitalised patients. Our study showed higher level of anxiety and depression in young patients as compared to older patients. Economic recession and negative message on social media further translated into form of anxiety and depression. This study was undertaken in the covid ward where atmosphere was emotionally charged and full of negative information's. Where even interviewer doing duties were also anxious and fearful of getting covid infection while interacting with covid patients. This might be also a cause for bias and overrating of symptoms.

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Conflict of interest: NIL

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