



PREVALENCE OF DEPRESSION, ANXIETY, AND STRESS DURING COVID-19 PANDEMIC. A COMPARISON BETWEEN OLDER AND YOUNG PEOPLE

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ABSTRACT

Aim: to determine the prevalence depression, anxiety and stress among COVID-19 patients admitted in SKIMS Medical College Bemina.

Methodology: This was a cross-sectional study done in SKIMS Medical College Bemina from April 2020, to July 2021 after taking ethical approval. SKIMS Medical College was designated as COVID hospital from March 2020 for more than 1 year. Patients admitted in hospital with COVID infection. Purposive sampling was used to recruit participants. Two groups were formed. (Group A and Group B). **Group A** consisted of elderly patients (age more than 60 years) who were admitted in hospital with COVID infection. **Group B** consisted of young patients (age less than 60 years) who were admitted in hospital with COVID infection. Participants who gave their consent were included in the study. Permission was taken and detailed information was given to the participants regarding the study and how the study would not have any untoward effect on them. Consent was taken from the participants under study and the family in a proper documented form both in English language and in Urdu language. A detail regarding the study was given in the native language to the attendants as well as to the patients. The relevant information about their sociodemographic variables was obtained and the study instruments were administered. The questionnaire was applied face to face by trained staff after taking proper safety precautions.

Results: In our study majority of the participants were males, married with no income, non working almost equally from rural and urban domiciles. In our study prevalence of depression, anxiety and stress was higher in age group of more than 60 years and above and predominantly females.

Conclusion: Our study findings can aid in the reduction of the adverse psychological impact of the COVID-19 pandemic on hospitalized patients in future.

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INTRODUCTION

It is well known fact now that COVID-19 affects significantly both physical as well as mental health. The COVID-19 outbreak influenced almost all spheres of life, economic, social, and psychological. As it spread rapidly worldwide, the COVID-19 pandemic is still a global health threat with devastating consequences that can potentially impact the citizens of all nations. Based on the evidence from previous research on the general population, we speculate that the mental health of the patients admitted in hospitals gets affected by the COVID-19 pandemic. It affected every individual including poor as well as rich, young and elderly, people with or without disabilities. [1-3] Studies from worldwide found high levels of depression, anxiety and stress during pandemic which focused on multiple mental health symptoms, in particular depression and anxiety.[4-15]

Therefore, this study was aimed to determine the prevalence depression, anxiety and stress among COVID-19 patients admitted in SKIMS Medical College Bemina.

MATERIALS AND METHODS

This was a cross-sectional study done in SKIMS Medical College Bemina from April 2020, to July 2021 after taking ethical approval. SKIMS Medical College was designated as COVID hospital from March 2020 for more than 1 year.

Study Population: Patients admitted in hospital with COVID infection. Purposive sampling was used to recruit participants.

Procedure: Two groups were formed. (Group A and Group B.)

Group A consisted of elderly patients (age more than 60 years) who were admitted in hospital with COVID infection.

Group B consisted of young patients (age less than 60 years) who were admitted in hospital with COVID infection.

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Inclusion Criteria Group A

1. Age > 60 years and above
 - Confirmation of the age was done by using one or more of the following criteria:
 - a. An authentic document/certificate;
 - b. Retirement year (if retired);
2. Participants who gave the consent.
3. Participants who were admitted in COVID hospital and fit to answer the questionnaire.
4. Patients who had MMSE score more than 24 were studied.

Exclusion Criteria Group A

1. Age < 60 years.
2. Participants who did not give consent.
3. Participants having been diagnosed from any major psychiatric disorder as a main or comorbid condition.
4. Participants having any problem suggestive of significant organic pathology, such as head injury, seizure, mental retardation, substance abuse etc
5. Participants having problems with speech, hearing and vision, which can impede the interview.
6. Inability to complete or failure to complete the questionnaires.

Inclusion Criteria Group B

1. Age > 18 years and less than 60 years.
2. Participants who gave the consent.
3. Participants who were admitted in COVID hospital.

Exclusion Criteria Group B

1. Age > 60 years.
2. Participants who did not gave consent.
3. Participants who had past history of psychiatric illnesses.
4. Participants who were suffering from organic brain disorders.
5. Inability to complete or failure to complete the questionnaires.

Study Instruments

Socio-demographic profile of patients

Mini Mental State Examination (MMSE)

The MMSE is a widely used assessment instrument designed to screen the cognitive impairments seen in a variety of dementing conditions, although the content areas focus on those associated with AD. There are 21 different items in 11 different tests, with scores ranging from 0 to a perfect score of 30. Scores of 23 or less are typically seen as

reflecting dementia and meriting more detailed assessment. In patients with high levels of premorbid functioning, this cutoff should be raised to any score less than 30. It is used for obtaining a standard index of cognitive dysfunction severity that is easily understood by clinicians across the spectrum of neurocognitive disorders' management though it has been proven to have low sensitivity and specificity, especially when used in mild or early disease conditions, thus overestimating cognitive impairment.[16-17]

Depression Anxiety Stress Scale-21 (DASS21)

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest / involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. The DASS-21 is based on a dimensional rather than a categorical conception of psychological disorder. The assumption on which the DASS-21 development was based (and which was confirmed by the research data) is that the differences between the depression, anxiety and the stress experienced by normal subjects and clinical populations are essentially differences of degree. The DASS-21 therefore has no direct implications for the allocation of patients to discrete diagnostic categories postulated in classificatory systems such as the DSM and ICD.[18,19]

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Statistical Analysis

Data was analyzed with help of SPSS 21. Frequency table, percentages, means and standard deviation (SD) and t-test were used.

RESULTS

Table 1 Frequency and Percentage of Different Socio Demographic Profile of the Participants (N=100).

Variables	Frequency (N)	Percent (%)	
Age of participants	Below 60 years	50	50%
	60 years & above	50	50%
Gender	Male	53	53%
	Female	47	47%
Marital Status	Unmarried	17	17%
	Married	83	83%
Monthly Income	Nil	62	62%
	Below 10000	1	1%
	10000-20000	12	12%
	21000-30000	17	17%
	Above 30000	8	8%
Domicile	Rural	49	49%
	Urban	51	51%
Educational Status	Illiterate	53	53%
	Literate	47	47%

Occupation Status	Working	20	20%
	Non-Working	80	80%

In our study majority of our patients 83 (83 %) were married and 17 (17%) were unmarried. Males constituted 53 (53 %) while as there were 47 (47 %) females out of a total of 100 participants. The results shows that majority of participants 62 (62%) were have no monthly income, 1 participant (1%) have Rs below 10000, 12 participants (12%) have Rs 10000-20000, 17 participants (17%) have Rs 21000-30000 and 8 participant (8%) have above Rs 30000 monthly income. Majority of our studied population 51 (51 %) who belonged to urban areas and 49 (49 %) were from rural areas. In our study that out of 100 patients, 53 (53 %) were illiterate and 47 (47 %) participants were literate. Majority of our studied population 80 (80 %) were currently non-working and 20 (20%) were currently working.

Table 2 Prevalence of Depression in Young and Older People during COVID-19 Pandemic (N=100)

Variable	Age of Participants				Total		
	Below 60 years		60 years & above				
Depression	Normal	45	90%	39	78%	84	84%
	Mild	3	6%	5	10%	8	8%
	Moderate	2	4%	4	8%	6	6%
	Severe	0	0%	2	4%	2	2%

The above results show that prevalence of depression in both groups was found 16%.

Depression was present in 5 (10%) participants in the age group of below 60 years of age & 11 (22%) participants have depression from 60 years & above. In participants below 60 years of age 6% had mild depression and 4% had moderate depression while in age group 60 years and above 10% participants had mild depression, 8% participants had moderate depression and 4% participants had severe depression.

Table 3 Prevalence of Depression among Gender of Participants during COVID-19 Pandemic (N=100).

Variable	Gender of Participants				Total		
	Male (53)		Female (47)				
Depression	Normal	49	92.45%	35	74.46%	84	84%
	Mild	1	1.88%	7	14.89%	8	8%
	Moderate	2	3.77%	4	8.51%	6	6%
	Severe	1	1.88%	1	2.12%	2	2%

The above results show that prevalence of depression among female participants was more as compared to male participants. Among females 14.89% had mild depression, 8.51% had moderate depression and 2.12% had severe depression. While among males 1.88% had mild depression, 3.77% had moderate depression and 1.88% had severe depression.

Table 4 Prevalence of Anxiety among Young and Older Participants during COVID-19 Pandemic (N=100).

Variable	Age of Participants				Total		
	Below 60 years		60 years & above				
Anxiety	Normal	45	90%	34	68%	79	79%
	Mild	3	6%	6	12%	9	9%
	Moderate	2	4%	5	10%	7	7%
	Severe	0	0%	5	10%	5	5%

The above results show that prevalence of Anxiety in both groups was found 21%.

Among participants with age group below 60 years 6% participants had mild anxiety and 4% had moderate anxiety, while in the age group 60 years and above 12% participants had mild level of anxiety, 10% moderate and 10 % severe anxiety.

Table 5 Prevalence of Anxiety among Gender of Participants during COVID-19 Pandemic (N=100).

Variable	Gender of Participants				Total		
	Male (53)		Female (47%)				
Anxiety	Normal	45	84.90%	34	72.34%	79	79%
	Mild	2	3.77%	7	14.89%	9	9%
	Moderate	2	3.77%	5	10.63%	7	7%
	Severe	4	7.54%	1	2.12%	5	5%

The above results show that prevalence of anxiety among the age of participants was found to be 21%. Among the studied population majority of females was suffering from anxiety symptoms. Among female participants 14.89% had mild anxiety, 10.63% had moderate anxiety and 2.12% had severe anxiety. Among male participants 3.77% had mild anxiety, 3.77% moderate and 7.54% had severe anxiety.

Table 6 Prevalence of Stress among Young and Older Participants during COVID-19 Pandemic (N=100).

Variable	Age of Participants				Total		
	Below 60 years		60 years & above				
Stress	Normal	45	90%	36	72%	81	81%
	Mild	3	6%	5	10%	8	8%
	Moderate	2	4%	5	10%	7	7%
	Severe	0	0%	4	8%	4	4%

The above results show that prevalence of stress in both groups was found 19%.

6% participants in the age group below 60 years had mild stress and 4% had moderate stress, while as in the age group had 10% mild and 10% moderate stress and 8% had severe stress.

Table 7 Prevalence of Stress among Gender of Participants during COVID-19 Pandemic (N=100).

Variable	Gender of Participants				Total		
	Male (53)		Female (47)				
Stress	Normal	45	90%	36	72%	81	81%
	Mild	3	6%	5	10%	8	8%
	Moderate	4	8%	3	6%	7	7%
	Severe	1	2%	3	6%	4	4%

The above results show that prevalence of stress among the gender of participants was 19%.

Female participants had more stress than male participants.

Table 8 Mean and SD of Male and Female on Depression, Anxiety and Stress.

Variables	Gender	N	Mean	Std. Deviation	t-value
Depression	Male	53	1.15	.568	9.21**
	Female	47	1.38	.739	
Anxiety	Male	53	1.34	.876	0.116
	Female	47	1.43	.773	
Stress	Male	53	1.26	.684	3.46
	Female	47	1.43	.878	

**p < .01

Table 8 show that there is significant difference between male and female in depression at the 0.01 significance level. The results also indicate that the female participants have more depression (M=1.38, SD=.739) than male participants

(M=1.15, SD=.568). However no significant difference was found in anxiety and stress on the basis of gender.

Table 9 Mean and SD of Age of Participants on Depression, Anxiety and Stress

Variables	Age of Participants	N	Mean	Std. Deviation	t-value
Depression	Below 60 years	50	1.14	.452	13.51***
	60 years & Above	50	1.38	.805	
Anxiety	Below 60 years	50	1.14	.452	37.10***
	60 years & Above	50	1.62	1.028	
Stress	Below 60 years	50	1.14	.452	29.38***
	60 years & Above	50	1.54	.973	

***p < .001

Table 9 show that there is significant difference between two groups i.e Below 60 years of age and 60 years & Above in depression, anxiety and stress at the 0.001 significance level. The results indicated that the Group A i.e, 60 years & above age group of participants have more depression (M=1.38, SD=.805), anxiety (M=1.62, SD=1.028) and stress (M=1.54, SD=.973) than the Group B below 60 years of age group (M=1.14, SD=.452).

DISCUSSION

To our knowledge, this is one of the first studies on mental health among COVID-19 patients admitted to a COVID-19–designated hospital in Kashmir. We found that both groups i.e, older and younger patients suffer from depression, anxiety and stress during COVID-19 pandemic.

In our study the prevalence of depression in both groups was found 16%, anxiety was found to be 21% and stress was found to be 19% which was consistent with other studies.[20-22]

In our study depression, anxiety and stress was found higher i.e, 22%, 32% and 28% respectively in the age group of 60 years and above as compared to age group of below 60 years of age where depression, anxiety and stress was found to be 10%, 20% and 20% respectively. Our results are in contrast with studies from higher income countries where younger age group had higher prevalence of depression. The reasons can be many: to begin with, our study includes population from a region that has been in conflict since past three decades and hence, lockdown has been a part and parcel of their growing years and therefore it was easier for them to adjust to situation like lockdown during COVID pandemic. The younger generation in the area of our study mostly believed in the conspiracy theory and hence this helped them in coping positively during the pandemic. One cannot worry about or be scared of something one believes does not exist.

The elderly on the other hand are more prone to depression, anxiety and stress due to comorbidities and worry regarding the younger generations. Another reason that elderly population were more affected by the precautionary measures and SOP'S that they were supposed to follow. They became more secluded after they were asked to reduce their mobility and distance themselves socially as much as possible. Besides the elderly have been throughout scared during the pandemic because of increased prevalence of COVID-19 related deaths in their age group. [23-27]

In conclusion, our study showed higher incidence of depression anxiety and stress in age group more than 60 years, which

mostly consisted of female population. Our study findings can aid in the reduction of the adverse psychological impact of the COVID-19 pandemic on hospitalized patients in future.

Limitations of the Studies

1. Being cross-sectional
2. Smaller sample size.

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