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A Cross-Sectional Study to Assess the Psychological Impact of Covid-19 Pandemic on Nursing Students in Selected Nursing College of New Delhi

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Keywords:	ABSTRACT
Covid-19 pandemic, psychological impact, Nursing students, Depression, Anxiety, Stress.	Introduction: The new corona virus has quickly spread across India and numerous other nations, creating an acute infectious pneumonia epidemic. With the pandemic, not only did the risk of infection-related death rise, but so did stress levels.
	Objectives: The research aimed to assess psychological effect of corona virus pandemic and finding association of the psychological impact of Covid-19 pandemic with selected demographic variables on nursing students in selected nursing colleges of New Delhi.
	Methodology: With a cross-sectional descriptive survey research design and purposive sampling strategy, the present study followed a quantitative research approach. The sample in the study included 100 students of selected College of Nursing of Delhi, India. The data was gathered using Google forms. Standardized rating scale DASS 42 was applied for assessing the symptoms of stress, anxiety and depression.
	Results: Results revealed that 22 % of the subjects reported severe to extremely severe level of depression, 31 % of the subjects reported moderate to severe level of anxiety and 19 % of the subjects reported moderate level of stress. The research findings also revealed that no significant relationship was found between Anxiety Depression, and Stress with demographic variables.
	Conclusion: Nursing students' sadness, anxiety, and stress levels are affected by the epidemic. Students' mental health should be thoroughly monitored in order to provide timely crisis-oriented psychological treatment and to take prevention measures in future pandemic emergencies.

Introduction

Since the first case was discovered in November 2019 in Hubei Province in Wuhan, China, the 2019 corona virus outbreak (COVID-19) has drawn attention from around the world. The number of cases exceeded the 2003 SARS case. After that, the number of occurrences skyrocketed and spread around the globe.¹ An outbreak of acute infectious pneumonia has been caused by the novel corona virus (COVID-19), which has spread quickly throughout India and numerous other nations.² The Indian government, medical professionals, the general people, and other stakeholders were under tremendous pressure as a result of this widespread contagious public health crisis.³

The COVID-19 pandemic has caused widespread panic and increased levels of anxiety and stress among people worldwide (WHO 2020). Many nations have shuttered their universities. Millions of people worldwide have had profound life changes as a result of it, including college students.⁴

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All educational institutions in India have been shuttered by the government as part of the countrywide lockdown, which has an impact on students of all educational levels, from preschoolers to postgraduates.⁵

Since COVID-19 had an effect on practically every industry, including education, schools, colleges, and other institutions they were closed, and students spent the majority of their time at home with little to no social interaction. There was no movement that was tangible; everything was imaginary. College students were anticipated to be impacted by the ongoing pandemic, stringent isolation protocols, and delays in the opening of schools, colleges, and institutions across the nation.⁶

The COVID-19 pandemic had a significant impact on people's mental health and emotional well-being worldwide, either directly through health-related problems or indirectly through its effects on the economy and society.⁴

In contrast to catastrophic occurrences that happen to individuals, the COVID-19 pandemic had been a persistent problem that affects every member of society. It is often known that stressful occurrences, such natural disasters and man-made traumas, can have a major psychological influence and lead to disorders like depression and posttraumatic stress disorder (PTSD). Such crises can also negatively impact nursing students' psycho-social well-being and ability to perform academically.⁵

Nursing education has consistently been associated with anxiety among students. Nursing students experience higher levels of anxiety than students in any other healthcare discipline due to their demanding course schedules, difficult exams, and ongoing pressure to maintain a high grade point average, complex interpersonal relationships, challenges in the clinical setting, and caring for patients who are chronically or potentially terminally ill.³

It was expected that the need for psychological intervention would gradually increase and prompt rapid and urgent research on the associated psychological impact. Therefore, the researcher thought to assess the psychological impact of COVID-19 pandemic on nursing students in selected Nursing College of New Delhi.

Materials and Methods

The research employed a quantitative technique using a non-experimental descriptive design. Formal administrative approval was obtained from the concerned authority and clearance was sought from Institutional ethical committee. The psychological effect on nursing students was assessed using a standardized method. Written informed consent was taken from each study subjects. Anonymity and confidentiality was maintained while carrying out the study. The study was conducted through online mode on students of selected nursing college of New Delhi. Purposive sampling technique was applied and 100 nursing students participated in the study. The respondents also gave their consent before answering the questions. The data collecting system was divided into two sections: Section A consisted of items pertaining to demographic data of the subjects and Section B included standardized tool DASS42 for assessing the psychological effect of Covid-19. DASS is the 42-item inventory of self-report which vields three factors: Stress, Anxiety, and Depression. Reliability of the scale was 0.79 for anxiety, 0.81 for stress, and 0.71 for depression. Scoring was done as in shown in table no.1. The collected data was analyzed using inferential and descriptive statistics.

 Table no. 1: DASS 42 score Interpretation

DASS Scoring	Stress	Anxiety	Depression
Extremely Severe	34+	20+	28+
Severe	26-33	15-19	21-27
Moderate	19-25	Oct-14	14-20
Mild	15-18	08-Sep	Oct-13
Normal	0-14	0-7	0-9

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Results

The analysis of the data revealed the following results: Section A: Demographic variables of the study subjects

The subjects' characteristics included in the study for the purpose of obtaining background information were Age, Gender, year of studying, Religion, Residing recently, Place of residence, Type of family, Parent's occupation, Family income, Relative or acquaintance got Covid-19, Comorbidity and Source of information for Covid-19. The data is presented in Table 2.



FIG: 1 A Bar Diagram Depicting The Percentage Wise Distribution Of Nursing Students By Their Age, Gender, Year Of Studying, Residing Recently & Place Of Residence



FIG: 2 A Bar Diagram Depicting The Percentage Wise Distribution Of Nursing Students By Their Type Of Family, Parent Occupation, Family Income, Relative Or Acquaintance Got Covid-19, Comorbidity And Source Of Information

Section B: Findings related to the Psychological Impact of Covid-19 Pandemic on Nursing students.

In this section the assessment of the psychological impact of students were scaled as per their depression, anxiety and stress level. Frequency and percentage distribution of each scale was obtained and as well as the prevalence of depression, anxiety and stress. The possible range of score, mean, median, mode and standard deviation of the scores related to the psychological impact of Covid-19 pandemic were computed as per the scoring and grading of the Depression, Anxiety and Stress Scale (DASS-42).



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PSYCHOLOGICAL TRAITS	FREQUENCY	PERCENTAGE					
DEPRESSION							
NORMAL	53	53					
MILD	10	10					
MODERATE	15	15					
SEVERE	16	16					
EXTREMELY SEVERE	6	6					
	ANXIETY						
NORMAL	41	41					
MILD	4	4					
MODERATE	21	21					
SEVERE	10	10					
EXTREMELY SEVERE	24	24					
	STRESS						
NORMAL	59	59					
MILD	14	14					
MODERATE	19	19					
SEVERE	6	6					
EXTREMELY SEVERE	2	2					

Table no.2

Frequency & Percentage Distribution of Subjects as per their Psychological level

n	=1	0	0
	_	~	~

Psychological Traits	Mean	Median	Mode	Standard deviation
Depression	11.09	9	0	19
Anxiety	11.68	10	0.4	16.5
Stress	13.02	12	2	19.5

Table no. 3

Mean, Median, Mode and Standard Deviation of Subjects as per their Depression, Anxiety and Stress level n=100

Data presented in table no.3 shows the mean, median, mode and standard deviation of subjects as per their depression, anxiety and stress scores. It can be seen that mean obtained for depression level was 11.09, median was 9, mode was 0 and standard deviation was 19. The mean for anxiety level was 11.68, median was 10, mode was 0.4 and standard deviation was 16.5. The mean obtained for stress level was 13.02, median was 12, mode was 2 and standard deviation was 19.5 which show the normal distribution and homogeneity in the assessment of the psychological impact of Covid-19 3015

pandemic.

Section C: Findings related to association of the Psychological impact of Covid-19 Pandemic with selected demographic variables.

This section deals with the analysis, description and interpretation of the data collected to find the association between the psychological Impact of Covid-19 pandemic i. e (Depression, Anxiety and Stress) with selected demographic variables of the subjects.

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 Table no. 4

 Association between the Psychological Impact of Covid-19 in terms of Depression and Selected Demographic Characteristics

									n=100
Variables		Normal	Mild	Moderate	Severe	Extremely severe	Test applied and value	P value	Remarks
Age in years	17-18 years	16	5	6	4	1	Fisher exact 3.533	0.473	NS at 0.05 level of significance
	19 years and above	37	5	9	12	5	-		
Gender	Male	16	1	5	6	4	Fisher exact 5.853	0.210 N le si	NS at 0.05 level of significance
	Female	37	9	10	10	2			
Place of residence	Urban	46	8	12	11	4	Fisher exact 3.533	0.473	NS at 0.05 level of significance
	Rural	7	2	3	5	2			
Relative or acquaintance got	Yes	4	2	2	0	0	Fisher exact 9.444	0.3006 NS at 0.05 le of significan	NS at 0.05 level of significance
Covid-19	No	44	7	13	14	4			
	Maybe	35	6	10	11	4	_		
Source of information got Covid-19	Internet	16	4	5	2	2	Fisher exact 9.915	0.271	NS at 0.05 level of significance
	Television	2	0	0	3	0			
	Others								

NS: Not significant

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 Table no.5

 Association between the Psychological Impact of Covid-19 in terms of Anxiety and Selected Demographic Characteristics

								n=100	
Variables		Normal	Mild	Moderate	Severe	Extremely severe	Fest applied and value	P value	Remarks
Age in years	17-18 years	15	1	7	0	9	Fisher exact 5.543	0.236	NS at 0.05 level of significance
	19 years and above	26	3	14	10	15			
Gender	Male	12	3	8	3	8	Fisher exact	0.960	NS at 0.05 level of
	Female	29	3	13	7	16			significance
Place of residence	Urban	34	3	18	9	17	Fisher exact	0.621	NS at 0.05 level of significance
	Rural	7	1	3	1	7			
Relative or acquaintance got	Yes	4	0	3	1	0	Fisher exact	0.731	NS at 0.05 level of significance
Covid-19	No	33	3	17	8	21	5.275		
	Maybe	4	1	1	1	3			
Source of information got Covid-19	Internet	25	3	13	8	17	Fisher exact 7.091	0.527 NS at of sig	NS at 0.05 level of significance
	Television	15	1	7	2	4			
	Others	1	0	1	0	3	1		

NS: Not significant

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Table no.6

Association between the Psychological Impact of Covid-19 in terms of stress and Selected Demographic Characteristics

									n=100
Variables		Normal	Mild	Moderate	Severe	Extremely severe	Test applied and value	P value	Remarks
Age in years	17-18 years19 years and above	23 36	2 12	6 14	1 4	0 2	Fisher exact 4.650	0.325	NS at 0.05 level of significance
Gender	Male Female	20 39	1 13	8 12	3 2	0 2	Fisher exact 7.404	0.116	NS at 0.05 level of significance
Place of residence	Urban Rural	48 11	14 0	20 7	5	2 0	Fisher exact 7.088	0.131	NS at 0.05 level of significance
Relative or acquaintance got Covid-19	Yes No Maybe	6 49 4	1 11 2	1 17 2	0 4 1	0 1 1 1	Fisher exact 6.016	0.645	NS at 0.05 level of significance
Source of information got Covid-19	Internet	39	6	15	5	1	Fisher exact 15.598	0.049	NS at 0.05 level of significance
	Television Others	18 2	8 0	1 3	1 0	1 0			

NS: Not significant

The data presented in in Table no.4,5 and 6 shows that no significant association was found between the psychological impact of Covid-19 pandemic (Depression, Anxiety and stress) and selected demographic variables of the nursing students (age, gender, place of residence, relative or acquaintance got Covid-19 and source of information for Covid-19) at 0.05 level of significance.

Discussion

In the present study it was found that 22 % of the subjects reported severe to extremely severe level of depression, 31 % of the subjects reported moderate to severe level of anxiety and 19 % of the subjects

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reported moderate level of stress. These findings are in conformity with the findings of the present study done by P.O.Gouzalez² that Moderate to extremely severe of anxiety, depression and stress were reported by 21.34%, 34.19% and 28.14% of the respondents respectively. Findings of the presented study related to depression level (37 % of the subjects had moderate to severe level of depression) and anxiety (27% of the subjects had moderate to severe level of stress) were in conformity with the findings of the study conducted by Alkhamees et all ⁷ done to assess the psychological impact of COVID-19 pandemic on the general population of Saudi Arabia. Results revealed that out of total 1160 respondents of the general public of Saudi Arabia; 23.6% reported moderate or severe psychological impact of the outbreak, 28.3%, 24%, and 22.3% reported moderate to severe depressive, anxiety, and stress symptoms, respectively.

But the findings of the present study also revealed that the findings related to Anxiety (more than half i.e 55 % of the subjects had moderate to severe level of anxiety) were contrary to the findings of study conducted by Alkhamees et al.⁷

Recommendations

The same study could be conducted on a larger sample covering the entire population of a region or part of a country. Coping strategies of the students can also be assessed in the study.

Conclusion

Nursing students' sadness, anxiety, and stress levels are affected by the epidemic. Students' mental health should be thoroughly monitored in order to provide timely crisis-oriented psychological treatment and to take prevention measures in future pandemic emergencies.

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