

ANALYZING ANXIETY AND DEPRESSION LEVEL AMONG POSTGRADUATE STUDENTS DURING COVID-19: A WEB-BASED ONLINE SURVEY STUDY

Dr. Iffat Naseem

Department of Hospital Management and
Hospice Studies
Faculty of Management Studies, Jamia Millia
Islamia New Delhi
iffat.naseem@jamiahamdard.ac.in

Nitesh Shrivastav

MBA (Pharmaceutical Management)
Department of Healthcare & Hospital
Management, School of Management and
Business Studies Jamia Hamdard, New Delhi
shrivastavnitesh5_ns@gmail.com

Abstract

It is important for young adults to understand and realize their role in the COVID-19 Pandemic. Even healthy people in their 20's and 30s can catch the coronavirus, spread it to others and suffer from severe illness resulting in lasting health problems or even death. Coronavirus disease (COVID-19) emerged as an epidemiological and psychological crisis and has been substantially affecting human life. It has led to extreme economic, social, and health disruptions. (American psychological association, the psychological impact of COVID-19, 2020. The Indian government announced a lockdown on 22 March 2020 on WHO guidance to control virus prevalence. (UN News, COVID-19: Virtual academic curriculum, restricted social interaction, recreation sources, and closed fitness centers are the most common factors for rising psychological impacts and mental health problems in young adults these days. Therefore, Anxiety, stress, and depression have also been analyzed by youth.

This study reports the findings from an online survey on youth and covid-19 for analyzing their mental status. This online survey aimed to capture the immediate effects of the pandemic on the lives of young people attending colleges for post-graduation programs. This online survey was done through an online questionnaire on the university students. The questionnaire was done after the reliability and validity of the questions.

Keywords; - Mental Health, Covid-19, Anxiety,

Introduction

Corona virus disease (COVID-19) emerged as an epidemiological and psychological crisis and has been substantially affecting human life. It has led to extreme economic, social, and health disruptions. (American psychological association, psychological impact of COVID-19, 2020). The Indian government announced a lockdown on 22 March 2020 on WHO guidance to control virus prevalence. (UN News, COVID-19: Lockdown across India, in line with WHO guidance, 2020). Traveling restrictions, social distancing, and safety measures were implemented to control its transmission. People

are facing stress, worry, and certain uncertainties in the context of lockdown and home quarantine which has led to mental health issues among people. (WHO, Mental health & COVID-19, 2020). Virtual academic curriculum, restricted social interaction, recreation sources, and closed fitness centers are the most common factors for rising psychological impacts and mental health problems in young adults these days. Therefore, Anxiety, stress, and depression have also been analyzed by various online surveys in university students. University students have become tedious with home isolation and developed a sense of antipathy. Final-year postgraduate students were also experiencing the fear of remaining unplaced because various companies are not hiring and vacancies were frozen.

In this physical distancing and living in isolation, it has become critical to ask for social support and connections. It's also important to understand some common signs of understanding anxiety and depression which is pretty common in young adults during COVID-19 (American psychological association, psychological impact of COVID-19, 2020).

Anxiety is a normal stress reaction of the human being and it can be beneficial as well. At some stages, it instigates people to be prepared for certain circumstances. However, anxiety disorder is different from normal anxiousness or worseness. It can be different from a normal fear of happening something bad. American Psychological Society states that nearly 30 percent of young adults globally face anxiety in their lives.

Anxiety refers to the anticipation of future concerns and is mostly associated with muscle tension and avoidance behavior. Whereas, fear refers to emotional response towards threat and is more associated with fight or flight reaction (American Psychiatric Association, Anxiety Disorders, 2017).

Depression is a common mental disorder affecting around 264 million people globally. It has some common characteristics like persistent sadness, lack of interest in early enjoyable and happening activities. Depression can also affect sleep, appetite, and concentration. It can be a leading cause of the burden of disease for many people and can reduce a person's accountability and way of life. Psychological, biological, and social interactions are leading factors to cause depression, and chances of people developing suicidal tendencies also arise when they face unprecedented circumstances. (World Health Organization, Depression).

Prevalence of anxiety and depression is also associated with the fear of life-threatening stimuli, which has already been seen in previous epidemics, such as those caused by Severe Acute Respiratory Syndrome (SARS). Few studies have also shown a major link between COVID-19 and anxiety. Although it has been analyzed that, to a lesser extent with depression, using both the Hospital Anxiety and Depression Scale

(HADS) and the Depression and Anxiety Stress Scale (DASS-21). It has been observed by recent studies that anxiety and stress are more likely to be associated with COVID-19 than depression. Nevertheless, the fact that depression is lesser associated with COVID-19. Further, it has been found that some suicidal cases have also been reported during COVID-19 (Antonio J. Rodríguez-Hidalgo et al., 2020).

Studies to investigate the psychological impact on earlier pandemics have shown that social distancing and home quarantine are major factors causing immediate and prolonged mental health issues including anxiety, depression, stress, and psychosis (Y & X, 2020).

In this COVID-19 outbreak, emerging literature has disclosed in their data that anxiety, stress, and depression are mostly observed in women and young adults due to COVID-19. On the other hand university students have been reported as more fearful of COVID-19 (THE DAILY STAR, 2020)

Dependence on digital technologies has raised the concerns of parents, teachers, and the government as well. Even young people themselves have provided information that using social media and digital technologies are aggravating a sense of anxiety and depression, disturbed appetite, and sleeping patterns (United news of bangladesh, educational institutions, 2020)

Unprecedented isolation and home quarantine during COVID-19 with a longer duration of complete virtual classes and uncertain academics have impacted the mental health of students and activities resulted in the prevalence of anxiety, stress, and depression.

Literature Review

In a very short period, COVID-19 has created emergency conditions globally. This virus has not only raised general public health problems but also caused several mental health issues and psychological disorders. Authors have discussed in their study that COVID-19 can impact the mental health of individuals and different communities. Therefore, it becomes necessary to identify major factors that make individuals prone to psychological and mental health disorders during this pandemic. Various cross-sectional studies have been performed in the United States found that long spending a long time online and knowing about COVID-19 infected people were the major factors for causing psychological and mental health problems among women and young adult university students (L, et al., 2004),

University students are experiencing more anxiety and stress during COVID-19. Therefore, proper strategic planning is required to help them in coping up with stress and anxiety. In this unusual condition, the university environment is best to implement

protective strategies against psychological and mental interventions. Authors have stated in their study that women and students have experienced more negative consequences of the COVID-19 outbreak.

Initial psychological impacts on health in India are similar to other countries across the world. Despite, adopting robust preventive measures Indian population has experienced anxiety and depression. Various factors like virtual academic programs, uncertain activities, restricted exposure, and prior mental illness are responsible for causing psychological and mental disorders. It's the responsibility of everyone to take good care of their mental health along with adopting precautionary measures to be safe from physical and mental illness (THE DAILY STAR, 2020),

Cases of anxiety and stress prevalence increased. Whereas symptoms of depression remained unchanged during quarantine and COVID-19. Disturbed sleep pattern, prior stress and depression problems before COVID-19, health worries, interaction with COVID-19 affected patients, and knowing about COVID-19 positive friends, relatives, and family members were found to be major factors causing a negative psychological impact on medical student's health.

(V, et al., 2020).

A study performed on Pakistani students has shown that various scholars have debated on the prevalence and adverse effect of the COVID-19 worldwide these days. There are many significant discussions among academic researchers which advocate linkage between mental health and COVID-19 pandemic. Several previous performed studies have disclosed that COVID-19 lockdown is the cause for the prevalence of mental health issues among students.

Methodology:

Objective of the Study

1. To study the association between the COVID-19 and Mental health among the post-graduate students who are studying.
2. To understand their psychological behaviors for their job opportunities during pandemic.

Study Design:-

Several hundred students were targeted from different universities of New Delhi, Jaipur, Mohali, Bhopal, and Chitrakoot. Total 503 postgraduates contributed to the research. Among the responses, 52.9% were male ($n=266$) and 46.5% female ($n=234$) were females and 0.6% others ($n=3$). The age of respondents ranged from 18 to more than 25.

Sample Size: - 503.

Research Design:

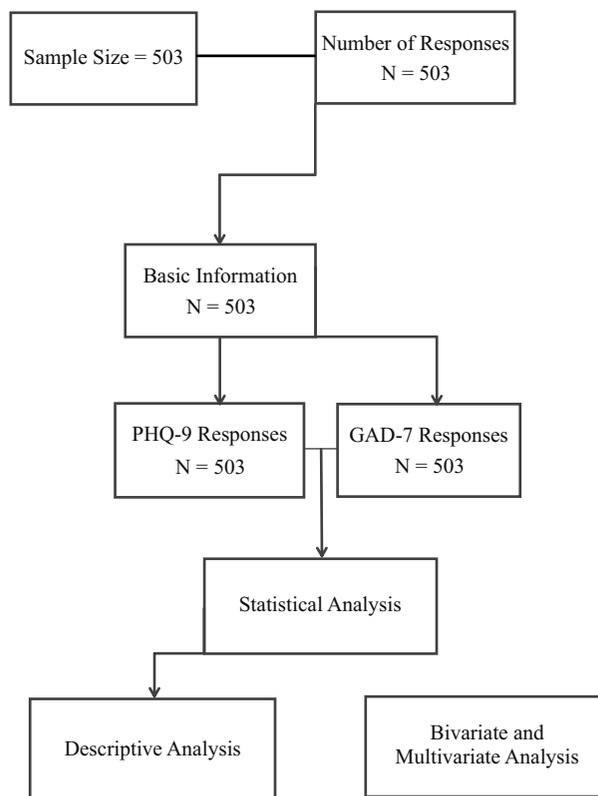
The study survey was conducted among postgraduate students of different universities from January 2021 to February 2021. An online questionnaire was prepared after the reliability and validity. It was conducted on online mode through Gmail and other social media platform.

Design of the Questionnaire:

The questionnaire was based on the standardized psychological, general behavioral and demographical study with respect to age and gender.

Purpose of the study:-

The purpose of the study was to collect general information about stress, anxiety, and depression among the students. To understand anxiety level, GAD-7 (General Anxiety Disorder-7) and for depression, PHQ-9 (Patient Healthcare Questionnaire-9) were used. The questionnaire was developed by Google form and circulated among students by using the online platform.



Data Collection (Tools Used)

Primary data – it was collected through online questionnaire through Gmail and other social media sources. Secondary Data: - It was collected through articles, journals, newspapers and Google scholars

Findings

With the help of questionnaire, basic information was collected. This included personal information, few general behavioral, and basic demographical study of the respondents. Current 'age' of the students ('18-21, 22-25, 26-30'), the gender of the students ('male' and 'female'), exhaustion from daily virtual activity ('yes' and 'no'), development of dullness due to home quarantine ('yes' and 'no'), the fear of remain unplaced or not getting the job ('yes' and 'no')

Depression: Patient Healthcare Questionnaire (PHQ-9) was used to evaluate the depression level of the students. PHQ-9 is an easy way for measuring depression levels. It is a proven tool for screening depression and contains a set of questions that helps to predict the mental state of the individual during the survey. The scores of the PHQ-9 analysis range from '0 to 3', ('0= not at all, '1= several days', '2= more than half the days', '3= nearly every day'). The levels for the study of depression were categorized as 'minimal = <5', 'mild = 5-9', 'moderate = 10-14', and 'severe = ≥ 15 '.

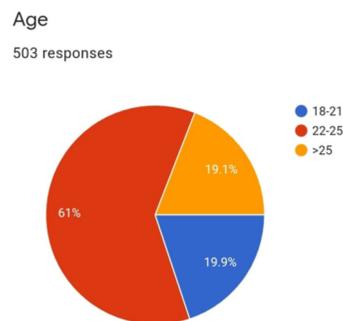
Anxiety: Anxiety was determined by using Generalized Anxiety Disorder-7 (GAD-7). It was used for the evaluation of the anxiety state of the individual. GAD-7 has a certain set of questions that helps in predicting the anxiety level in an individual. GAD-7 analysis scale ranges from '0 to 3', ('0= not at all, '1= several days', '2= more than half the days', '3= nearly every day'). The levels for the study of anxiety were categorized as 'non-minimal = <5', 'mild = 5-9', 'moderate = 10-14', and 'severe = ≥ 15 '.

After the data collection, it was entered. Then it was interpreted. Analysis was done. And then findings and results were evaluated.

Graphs & Values:

Table 1. Frequency distribution table for selected variables.

Age	Frequency	Percentage
18-21	100	19.9
22-25	307	61
26-30	96	19.1



For demographical analysis, age group of the respondents were taken between the range of 18 to 30 years. Out of this 100 respondents were of the 18-21 age group (19.9%), 307 respondents were of the 22-25 age group (61%), and 96 respondents were of the age group of 26-30 (19.1%).

Table 2

Gender	Frequency	Percent
Male	266	52.9
Female	234	46.5
Others	03	0.6

Response data was collected among 503 students and out of which 266 respondents were male (52.9%), 234 female respondents (46.5%), and 3 other (0.6%).

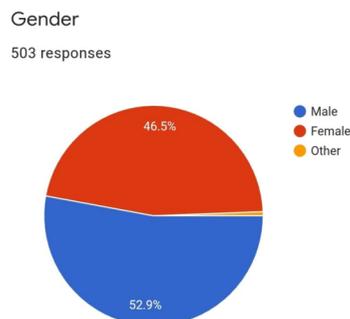


Table 3

Exhaustion from daily virtual Academic activities	Frequency	Percent
Yes	366	72.8
No	137	27.2

Out of 503, 366 respondents were there who respond 'Yes' and 137 respond 'No' for exhaustion from daily virtual academic activities.

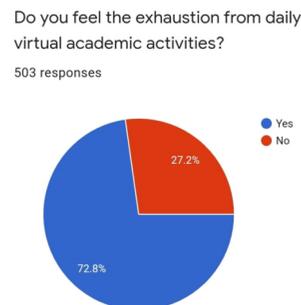


Table 4

Developing tedious due to home quarantine	Frequency	Percent
Yes	365	72.6
No	138	27.4

365 respondents marked 'Yes' and 138 respondents marked 'No' for developing tediousness due to home quarantine.

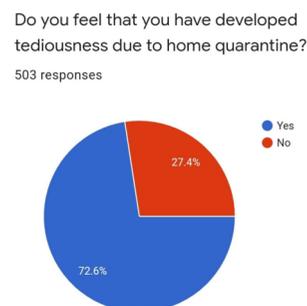


Table 5

Fear of remaining unplaced or not Getting a job	Frequency	Percent
Yes	373	74.2
No	130	25.8

Out of 503 respondents, 373 respondents showed fear of not getting jobs due to this pandemic condition. On the other hand, 130 respondents marked 'No' for remaining unplaced or not getting a job.

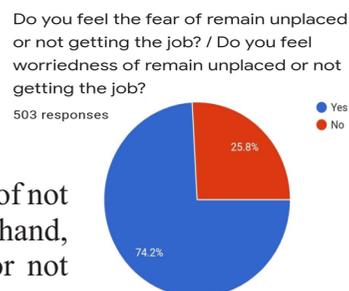


Table 6

Job search in a week	Frequency	Percent
Not at all	146	29
Several days	200	39.8
More than half the days	50	9.9
Nearly every day	107	21.3

Out of 503 respondents, 146 respondents were there who marked 'Not at all', 200 who marked 'Several days', 50 who marked 'More than half the days', and 107 who marked 'Nearly every day' for a job search in a week.

How often you search for a job in a week?

503 responses

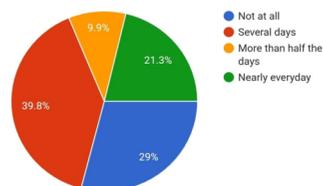


Table 7

Feeling nervous or anxious	Frequency	Percent
Not at all	127	25.2
Several days	221	43.9
More than half the days	87	13.5
Nearly every day	68	17.3

Out of 503 respondents, 127 respondents were there who marked 'Not at all', 221 who marked 'Several days', 87 who marked 'More than half the days', and 68 who marked 'Nearly every day' for feeling nervous or anxious.

Are you feeling nervous, anxious, or on edge these days?

503 responses

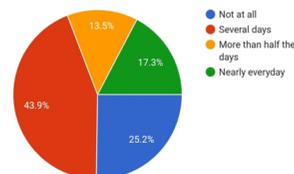


Table 8

Not being able to stop or control worrying	Frequency	Percent
Not at all	165	32.8
Several days	191	38
More than half the days	69	13.7
Nearly every day	78	15.5

Out of 503 respondents, 165 respondents were there who marked 'Not at all', 191 who marked 'Several days', 69 who marked 'More than half the days', and 78 who marked 'Nearly every day'.

Are you not being able to stop or control worrying these days?

503 responses

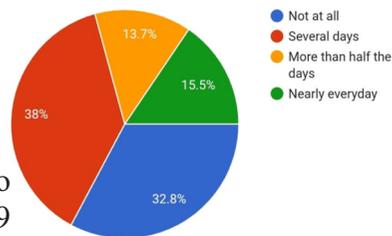
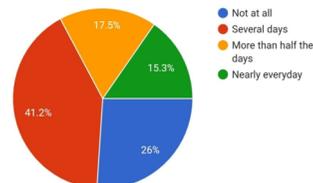


Table 9

Experiencing trouble relaxing	Frequency	Percent
Not at all	131	26
Several days	207	41.2
More than half the days	88	17.5
Nearly every day	77	15.3

Are you experiencing trouble relaxing these days?

503 responses



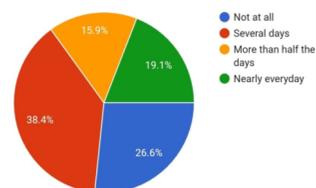
Out of 503 respondents, 131 respondents were there who marked 'Not at all, 207 who marked 'Several days', 88 who marked 'More than half the day and 77 who marked 'Nearly every day.

Table 10

Becoming easily annoyed or irritable	frequency	Percent
Not at all	134	26.6
Several days	193	38.4
More than half the days	80	15.9
Nearly every day	96	19.1

Are you becoming easily annoyed or irritable these days?

503 responses



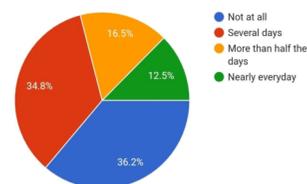
Out of 503 respondents, 134 respondents were there who marked 'Not at all, 193 who marked 'Several days', 80 who marked 'More than half the days and 96 who marked 'Nearly every day.

Table 11

Feeling afraid as if something awful might happen	Frequency	Percent
Not at all	182	36.2
Several days	175	34.8
More than half the days	83	16.5
Nearly every day	63	12.5

Are you feeling afraid as if something awful might happen these days?

503 responses



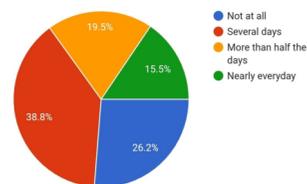
Out of 503 respondents, 182 respondents were there who marked 'Not at all, 175 marked 'Several days', 83 who marked 'More than half the days', and 63 who marked 'Nearly every day'

Table 12

Experiencing little interest or pleasure in doing things	frequency	Percent
Not at all	132	26.2
Several days	195	38.8
More than half the days	98	19.5
Nearly every day	78	15.5

Are you experiencing little interest or pleasure in doing things?

503 responses

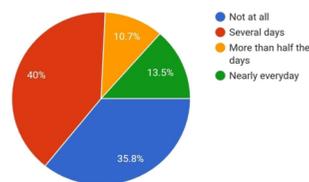


Out of 503 respondents, 132 respondents were there who marked 'Not at all, 195 who marked 'Several days', 98 who marked 'More than half the days', and 78 who marked 'Nearly every day'.

Table 13

Feeling down, depressed, or hopeless	frequency	Percent
Not at all	180	35.8
Several days	201	40
More than half the days	54	10.7
Nearly every day	68	13.5

Are you feeling down, depressed, or hopeless?
503 responses

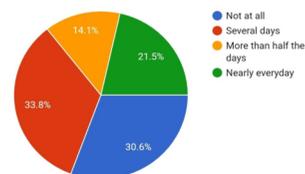


Out of 503 respondents, 180 respondents were there who marked 'Not at all', 201 who marked 'Several days', 54 who marked 'More than half the days', and 68 who marked 'Nearly every day'.

Table 14

Experiencing trouble falling or Stay insleep, sleeping too much	frequency	Percent
Not at all	154	30.6
Several days	170	33.8
More than half the days	71	14.1
Nearly every day	108	21.5

Are you experiencing trouble falling or staying asleep, or sleeping too much?
503 responses

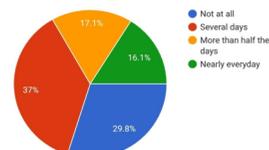


Out of 503 respondents, 154 respondents were there who marked 'Not at all', 170 who marked 'Several days', 71 who marked 'More than half the days', and 108 who marked 'Nearly every day'.

Table 15

Feeling tired or having little energy	frequency	Percent
Not at all	150	29.8
Several days	186	37
More than half the days	86	17.1
Nearly every day	81	16.1

Are you feeling tired or having little energy?
503 responses

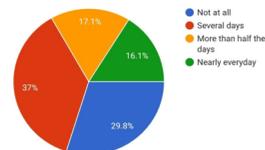


Out of 503 respondents, 150 respondents were there who marked 'Not at all', 186 who marked 'Several days', 86 who marked 'More than half the days', and 81 who marked 'Nearly every day'.

Table 16

Having a poor appetite or over eating	frequency	Percent
Not at all	212	42.1
Several days	151	30
More than half the days	74	14.7
Nearly every day	66	13.1

Are you feeling tired or having little energy?
503 responses



Out of 503 respondents, 212 respondents were there who marked 'Not at all', 151 who marked 'Several days', 74 who marked 'More than half the days', and 66 who marked 'Nearly every day'.

Table 17

Feeling bad about yourself, or you are the failure or have let yourself, or your family down	Frequency	Percent
Not at all	225	44.7
Several days	152	30.2
More than half the days	64	12.7
Nearly every day	62	12.3

Out of 503 respondents, 225 respondents were there who marked 'Not at all', 152 who marked 'Several days', 64 who marked 'More than half the days', and 62 who marked 'Nearly every day'.

Are you feeling bad about yourself - or that you are a failure or have let yourself or your family down?

503 responses

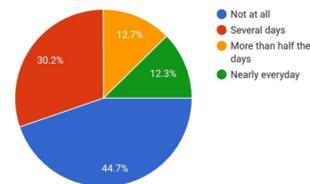


Table 18

Having trouble concentrating on things, such as reading newspaper or watching television	frequency	Percent
Not at all	200	39.8
Several days	156	31
More than half the days	77	15.3
Nearly every day	70	13.9

Out of 503 respondents, 200 respondents were there who marked 'Not at all', 156 who marked 'Several days', 77 who marked 'More than half the days', and 70 who marked 'Nearly every day'.

Are you having trouble concentrating on things, such as reading the newspaper or watching television?

503 responses

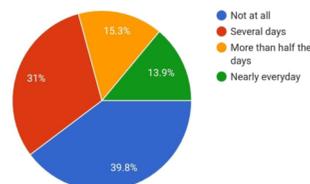


Table 19

Moving or speaking so slowly that Other people could have noticed? or the opposite-being so restless that you have been moving around a lot more than usual	frequency	Percent
Not at all	253	50.3
Several days	145	28.8
More than half the days	60	11.9
Nearly every day	45	18.9

Out of 503 respondents, 253 respondents were there who marked 'Not at all', 145 who marked 'Several days', 60 marked 'More than half the days', and 45 marked 'Nearly every day'.

Are you moving or speaking so slowly that other people could have noticed? Or the opposite- being so fidgety or restless that you have been moving around a lot more than usual?

503 responses

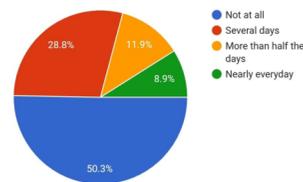


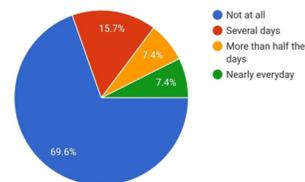
Table 20

Some way	frequency	Percent
Not at all	350	69.6
Several days	79	15.7
More than half the days	37	7.4
Nearly every day	37	7.4

Out of 503 respondents, 350 respondents were there who marked 'Not at all', 79 who marked 'Several days', 37 who marked 'More than half the days', and 37 who marked 'Nearly every day'.

Do you have thoughts that you would be better off dead, or of hurting yourself in some way?

503 responses



Limitations

1. Due to ethical requirements on anonymity and confidentiality, the contact details of the respondents were not collected. However, the use of validated screening e-questionnaire was considered as a cost-effective approach to explore the situation in general, therefore, used in this study.
2. Since the research methodology could not reach people with medically examined depression and anxiety symptoms, the provision of the results may not fully reflect the severity of depressive and anxiety symptoms among students.

Conclusion

1. This study gives the first empirical evidence that a large percentage of university students have been suffering from depression and anxiety symptoms during the ongoing pandemic.
2. In addition to academic and professional uncertainty, financial insecurity is contributing to the rise of depression and anxiety among university students.
3. To minimize the growing mental health problems, the government, along with the universities, should work together to deliver promptly and accurately economy-oriented psychological support to the university students.
4. Furthermore, parents should be encouraged, by providing pandemic response and recovery support from the government, to create a friendly and positive family environment for university students without imposing pressure on their future academic and working career.
5. University departments and governments need to provide some counseling programs to address depression so that a mental health-friendly environment can be promoted for university students. Furthermore, some more studies are needed to be performed on COVID-19 to get more generalized data. (Bo Zhao 1, Fanlei Kong 2,3,* , Myo Nyein Aung 4,5, Motoyuki Yuasa 5 and Eun Woo Nam 1,6,* , 2020).

6. Students who are much worried about their health are at more risk of stress and anxiety. Subsequently, they should focus on coping strategies based on self-focused emotional reactions towards stress like anger, tension, daydreaming, and self-preoccupation. Universities should implement some coping strategies to help students get rid of psychological stress. (Aleksandra M Rogowska 1 Cezary Kuśnierz 2 Anna Bokszczanin 1, 2021).
7. Besides, few studies have shown that exposure to the COVID-19 pandemic is also the causing factor for stress, anxiety, depression, mood swings, and increased mental health issues of university students. This study reveals that illness perception or depression disorders are associated with the lower level of the student's mental health. Furthermore, young students who had exposure to the COVID-19 outbreak are more prone to mental health issues. (Aqeel Muhammad, Shuja Hamza Kanwar, Abbas Jaffar, Rehna Tasnim, Arash Ziapour, 2020).
8. Author of School of Medicine, University Malaysia Sabah Jalan University (Narasappa Kumaraswamy, 2012) in his study discussed that colleges should impart an effective and healthy environment for the students. An effective monitoring and proper support system should be installed to identify stress and deal with it appropriately. This study has also shown that the teaching style and psychological well-being of students need to be addressed. Furthermore, three main issues: Teaching process, Teaching value, and proper support system for students are required to pay closer attention. This study has identified the problematic areas and the corrective measures so that if any disaster comes in the future then how can we overcome the problems keeping in mind of some areas to worked on it,

References

- (L, C., & X, Y. (2020). why did the lockdown strategy work well . *socioecological practice research*, 1-6.
- L, L, H., WL, G., S, R., Pogorski, S., S, G., & R, S. (2004). SARS control and psychological effects of quarantine, toronto, canada and pshychological effects of quarantine ,toronto,canada, . *Emergency disaster* , 1206-12.
- r, b., rahman, m., t, s., & d, g. (2020). Public awareness and insufficient health facility remain key challenges. *Public health*.
- *united news of bangladesh, educational institutions*. (2020, June 15). Retrieved from united news of bangladesh: <http://un.com.bd/category.bangladesh.educational-institutions-to-remain-shut-till-june>
- V, V, G., O, S., V, K., N, K., T, M., & A, R. (2020). Covid 19 fear, stress, anxiety and substance use among russian and belarusian university students. *International journal of mental health and addiction* , 1-7.

- Y, B., L, Y., T, W., F, T., Jin, D.-Y., & L, C. (2020). Presumed asymptomatic carrier transmission of COVID-19. *JAMA*.
- Y, Z., & X, D. (2020). Mental healthcare for international chinese students affected by the covid-19 outbreak. *The lancet psychiatry*, 4-7.
- y, zhai, & x, d. (2020). Mental health care for international chinese students affected by the covid-19. *The lancet psychiatry*, 4-7.
- Z, A. M., ahmed, O., Z, A., S, H., L, S., & A, A. (2020). Epidemic of COVID-19 IN China and Associated psycho;ogical problems. *Asian Journal of Psychiatry*.