

Assessment of Psychological State of College Students During Covid-19 Lock Down

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Abstract:-

➤ Background:

COVID-19 has caused havoc in the lives all around the world, which has ceased due to the “lockdown”. As the number of cases rise rampantly and lockdown strategy is implemented, its influence on the mental health of college students and their education is still unfamiliar.

➤ Aim:

This article aims to demonstrate the effect of pandemic and its lockdown protocols on the Psychological State and Attitude of College Students during the COVID-19 lockdown period.

➤ Methods And Materials:

The responses were collected from an online survey, from various parts of India, through social media platforms like WhatsApp.

➤ Statistical Analysis:

Data was collected and statistical analysis was done. Descriptive analysis with frequency, percentage, mean and standard deviation were computed. Test of significance using Pearson Chi-Square value to determine categorial variable between gender, age, course of study and area of residence and the value $p \leq 0.05$ is set as statistically significant.

➤ Results:

A total of 457 students, mostly from Tamil Nadu, completed the survey. The majority of the responses were received from females. 72.4% of the respondents felt anxious, 88.8% felt depressed during the lockdown. Only 33.9% of the respondents are satisfied with the alternate method of learning and 84.9% have felt isolated during the classes.

➤ Conclusions:

Young people, people who spent too much time, abnormally, in lockdown, are at high risk of developing psychological issues. The prevalence of anxiety and depression symptoms were found to be high in college students. Virtual learning is a practical stop-gap solution during this epidemic but most of the students are not satisfied with it and if continued, it will negatively impact student's education and mental health.

Keywords:- Anxiety, COVID-19, Isolation, Lockdown, Online classes, Psychology.

I. INTRODUCTION

The COVID-19 pandemic, caused by the SARS-CoV-2 virus, has led to 3,63,61,054 confirmed cases of COVID-19, including 743,487 deaths, reported to WHO, as of October 9, 2020. [1] The living and working conditions of billions of people worldwide have been significantly disrupted due to different forms of social distancing and lockdowns in many cities. The world economy has been weakened remarkably as a result of business closures and maximal restrictions on travel. Widespread availability of accurate and rapid testing procedures is extremely beneficial in unraveling the complex dynamics involved in SARS-CoV-2 infection and immunity. [2] To this end, laboratories, universities, and companies around the world have been competing to develop and produce critically-needed test kits.

In such circumstances, people's psychological pressure will be amplified, and people will automatically enter the "stress" state in the face of sudden pressure. In this state, people's mood, physiology, thinking and behavior change a lot. If people can't adapt to the pressure smoothly and relieve the stress state, the continuous existence of stress

will turn into anxiety and depression, which will cause them to harm to themselves or others and even affect their daily life, social intercourse and work. [3]

College students in youth are a special social group, who are under pressure from all aspects of life ranging from their daily routine, studies, emotions and employment opportunities.[3] Due to the immaturity of psychological development and the instability of emotions, psychological conflicts often occur when facing a series of physiological, psychological and social adaptation problems. Moreover, due to the present severe epidemic state, fear, worry, anxiety and other negative emotions are more likely to appear in the sudden, life-threatening and uncertain situation. [3] The aim of this study is to correlate the repercussions of COVID 19 on the psychological changes of college students.

II. METHODS AND METHODOLOGY

This observational study demonstrates the psychological state, behavior and mindset of college students during the COVID-19 lockdown period. The target population was 18-23 years-old, college-going undergraduate students in India. The questionnaire was prepared in English, focusing on both the demography of the subjects and to assess the anxiety and depression levels of the students based on the difficulties faced by them during the lockdown. This questionnaire was converted to the online platform called Google Forms and was distributed to college students via Social Media platforms like WhatsApp, Instagram, Telegram, etc.

The demographic questions are to determine the Age, Sex, Socioeconomic Status, Location, Course and Year of study. The main questionnaire articulates 30 close-ended questions with objective Multiple Choices with Likert (5-point) Scale and one final open-ended question to offer the subjects, the opportunity to express. The questions cover a wide range of information like ‘fear of COVID’, ‘personal hygiene’, ‘day-to-day activities’, ‘sleeping and eating pattern’, ‘alternate teaching methods’, etc. The questions

were premeditated to assess the Anxiety and Depression level of the subjects prior to and in the course of the lockdown and to weigh in the factors which contribute to the above fact. The study is aiming to determine if the Pandemic and its Lockdown Procedures have had a ‘Positive’ or a ‘Negative’ Outcome in the minds of students.

The data is then applied with Google Sheets to determine the percentage of students having a “positive effect”, “negative effect” or “no change”, with respect to different groupings as to how it influences the outcome (course of study, socio-economic status, satisfaction with online classes and utility of time, etc.). A total of 457 students, mostly from Tamil Nadu, completed the survey with willingness, which was conducted from 23/05/2020-to-05/08/2020 and the purpose of this questionnaire was clarified prior. No identifying information was included in this.

III. RESULTS

This article aims to demonstrate the effect of pandemic and its lockdown protocols on the Psychological State and Attitude of College Students during this demanding time. More than 480 responses were recorded, of which 457 were valid (completion rate:95.2%). The age group of the participants was 17-29 years, the mean age being 20.94 and standard deviation being 1.941. Of the 457 people attending this study, 298 of it were Female and 159 were Male. The completion rate of this study by Women (65.2%) is more than that of Men (34.8%). Most of the participants (67%) lived in urban areas and 18.6% lived in rural areas. Overall, 432 respondents submitted from the state of Tamil Nadu (94.5%) and the rest of the respondents (5.5%) were from various other states. Of the 432 from Tamil Nadu, 226 (49.5%) were from the Chennai city. Majority of the respondents were from the E&A (Engineering and Arts & Science) courses (59.1%) and the rest of the students (40.9%) from the Medical, Dental and Paramedical courses.

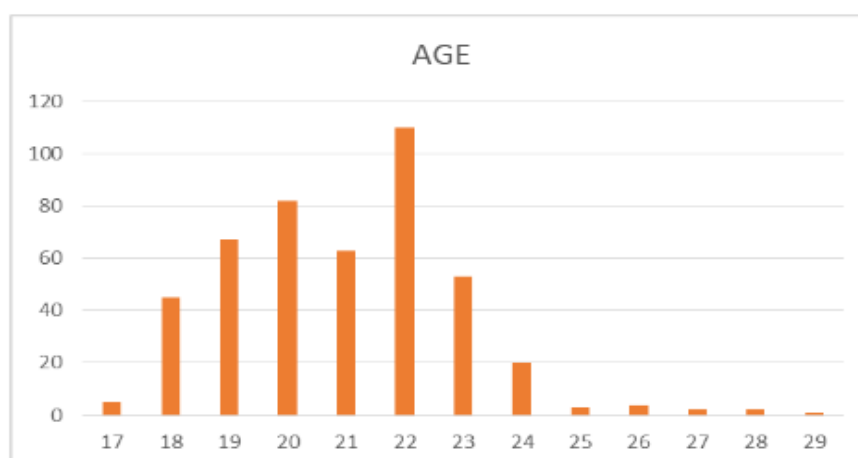


Fig 1:- Distribution of the study respondents according to their age.

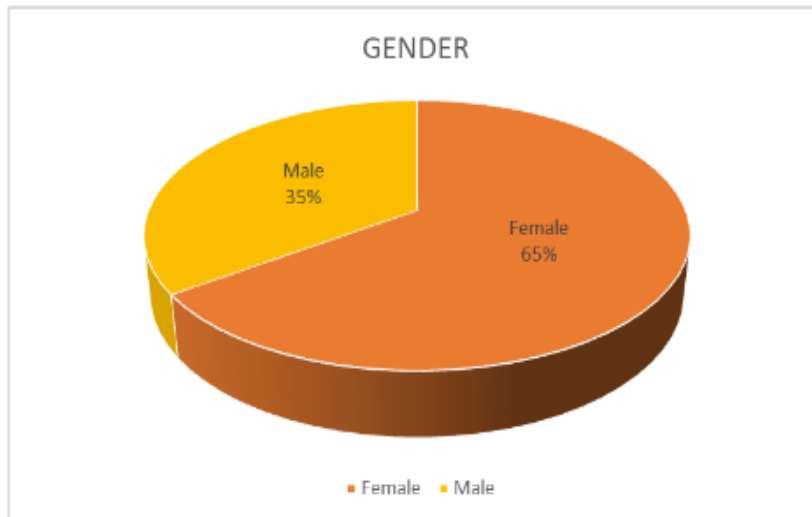


Fig 2:- Distribution of the study respondents according to their gender.

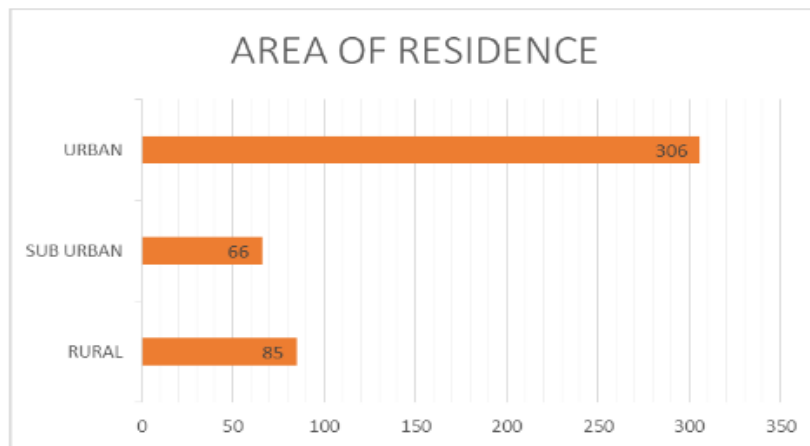


Fig 3:- Distribution of the study respondents according to their area of residence.

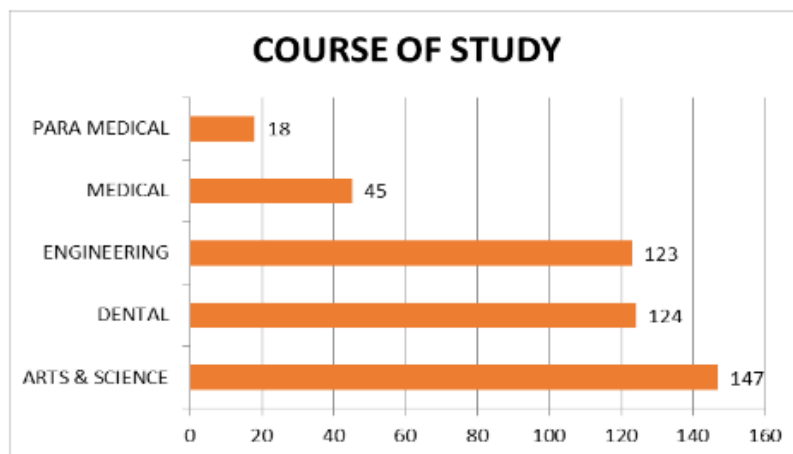


Fig 4:- Distribution of the study respondents according to their course of study

Table 1 findings show that more than 92% of people feel Uneasy if they forget to wear a mask, where as 93.2% people feel Uneasy if other people don't wear masks. 72.4% of people feel anxious if they show symptoms of Covid19, while 88.8% of people panic if other people present either these symptoms. 88.8% of people have felt depressed for past few months, furthermore 92.3% of people worried about future. 70% of people have felt they have poor sleep

quality due to worrying, as a consequence 76% of people believe they cannot overcome their worries. 59.5% of his people have observed a change in their appetite, 29.7% of people have no notable change in their appetite during this lockdown. The feeling of purposelessness or hopelessness have been experienced by 83.3%, moreover 85.8% of people suffer from the fear of letting their family down.

Table 2 findings show that more than 84% of participants perceive of alternate method of teaching as a negative, whereas there is equal distribution of satisfaction with the same. In spite of maximum number of Wi-Fi and mobile data users (95%), 93.4% had experienced connectivity problem. In addition to connectivity issues (25.4%) there are various other problems like battery issues (19.3%), overheating (21%), Inadequate space (17.1%) and security issues (17.2%) which results in anxiety while uploading the assignment. Despite 84.9% of participants

feeling isolated, only 39.4% of participants agree that they are losing valuable family time during online classes. 93.7% of people have often felt that their mental health interfered with their usual tasks, which supports the finding that 91.1% of people have had a loss of interest in previously liked subjects. Although having an abundance of time, only 43.5% of people are satisfied with how they spend their time. When asked about the solution to overcome this situation, 66.1% of respondents have a positive outlook.

Questions	Options	Frequency (%)
Do you feel uneasy if you forget to wear a mask when you go out	Yes	421(92.1%)
	No	36(7.9%)
Do you feel uneasy if other people don't wear masks	Yes	426(93.2%)
	No	31(6.8%)
Are you anxious of being suspected of having covid19 symptoms	Yes	331(72.4%)
	No	126(27.6%)
Do you panic if people around you have fever or cough	Yes	406(88.8%)
	No	51(11.2%)
During the past two months have you felt sad or depressed	Yes	406(88.8%)
	No	51(11.2%)
Are you worried about your future	Yes	422(92.3%)
	No	35(7.7%)
Have you lost a lot of sleep over worrying	Yes	320(70%)
	No	137(30%)
Do you feel that you cannot overcome your worries	Yes	348(76%)
	No	109(24%)
Do you think there is a change in your appetite during this lockdown	Agree	272(59.5%)
	No change	136(29.7%)
	Disagree	49(10.5%)
Do you feel purposeless or hopeless about life during quarantine	Yes	381(83.3%)
	No	76(16.7%)
Do you feel bad about yourself or that you are a failure or letting yourself or your family down?	Yes	392(85.8%)
	No	65(14.2%)

Table 1: Distribution of anxiety faced by the study respondents during the COVID-19 lockdown

Questions	Options	Frequency (%)
How do you feel about the alternative method of online teaching	Positive	70(15.4%)
	Negative	387(84.6%)
How satisfied are you with current method of online learning	Satisfied	155(33.9%)
	Neutral	179(39.1%)
	Dissatisfied	123(27%)
What type of internet connection do you use	Cellular	251(55%)
	Dongle	19(4.2%)
	Wi-Fi	187(40.8%)
Do you have internet connectivity problem	Yes	427(93.4%)
	No	30(6.6%)
Do you feel anxious if you're not able to upload your assignment	Yes	380(83.1%)
	No	77(16.9%)
Which of the problems concern you in regards to online classes	Battery issues	88(19.3%)
	Connectivity problems	116(25.4%)
	Overheating	96(21%)
	Inadequate space	78(17.1%)
	Security issues	79(17.2%)
Do you think that you're losing valuable family time due to online classes	Agree	180(39.4%)
	No change	182(39.9%)
	Disagree	95(20.7%)

Do you feel extreme isolation during online classes	Yes	388(84.9%)
	No	69(15.1%)
Do you think that there is a loss of interest in subjects previously enjoyed by you	Yes	416(91.1%)
	No	41(8.9%)
Has your mental health interfered with your ability to accomplish usual tasks	Yes	428(93.7%)
	No	29(6.3%)
Are you satisfied with how you spend your time	Satisfied	119(43.5%)
	Neutral	166(36.3%)
	Dissatisfied	92(20.2%)
How do you think you'll overcome this situation	Positive response	302(66.1%)
	Neutral response	136(29.8%)
	Negative response	19(4.1%)

Table 2: Distribution of the study respondents' perception towards online classes

Questions	Options	Female		Male		P value
		n	%	n	%	
Do you think your family or friends are suspected of having COVID 19?	Don't know	25	5.5	16	3.5	0.017
	Maybe	32	7	27	5.9	
	No	228	49.9	101	22.1	
	Yes	13	2.9	15	3.2	
Are you worried about the control of the epidemic?	Extremely worried	20	4.4	11	2.4	0.036
	Moderately worried	111	24.3	41	8.9	
	Not at all	11	2.4	5	1.1	
	Slightly worried	69	15	57	12.5	
	Very worried	87	19	45	9.8	
Do you feel uneasy if other people don't wear masks?	Extremely uneasy	124	27.2	47	10.2	0.04
	Moderately uneasy	63	28.4	36	7.9	
	Not at all	18	4	13	2.9	
	Slightly uneasy	21	4.6	22	4.8	
	Very uneasy	72	15.7	41	8.9	
How often did you lose interest in your appearance?	Extremely often	50	11	20	4.4	0.038
	Not at all	60	13.1	32	7	
	Slightly often	59	13	18	3.9	
	Somewhat often	71	15.5	55	12	
	Very often	58	12.7	34	7.4	
Do you feel that you cannot overcome your worries?	Always	20	4.4	16	3.5	0.003
	Never	79	17.2	30	6.5	
	Often	40	8.8	36	7.9	
	Seldom	56	12.2	15	3.2	
	Sometimes	103	22.5	62	13.6	
Do you think that your personal hygiene has declined?	Agree	61	13.3	43	9.4	0.035
	Disagree	54	11.8	25	5.5	
	No change	119	26	61	13.3	
	Strongly agree	12	2.6	14	3	
	Strongly disagree	52	11.3	16	3.5	

Table 3 Comparison of Psychological State of respondents during COVID19 lockdown according to Gender:

Questions	Options	Arts & Science		Dental		Engineering		Medical		Para Medical		P Value
		n	%	n	%	n	%	n	%	n	%	
Do you feel uneasy if other people don't wear masks?	Extremely uneasy	63	13.8	50	10.1	35	7.6	17	3.7	6	1.3	0.01
	Moderately uneasy	35	7.6	23	5	26	5.6	11	2.4	4	0.9	
	Not at all	8	1.7	5	1.1	8	1.7	9	1.9	1	0.2	
	Slightly uneasy	10	2.2	17	3.7	12	2.6	3	0.7	1	0.2	
	Very uneasy	31	6.8	29	6.3	42	9.2	5	1.1	6	1.3	
Are you anxious of being suspected of having covid19 symptoms	Extremely anxious	18	3.9	13	2.8	10	2.2	13	2.8	1	0.2	0.002
	Moderately anxious	35	7.6	33	7.2	35	7.6	12	2.6	3	0.7	
	Not at all	46	10	40	8.7	33	7.2	5	1.1	2	0.4	
	Slightly anxious	30	6.5	19	4.1	15	3.3	7	1.5	5	1.1	
	Very anxious	18	3.9	19	4.1	30	6.5	8	1.7	7	1.5	
Do you feel purposeless or hopeless about life during quarantine?	Always	13	2.8	18	3.9	15	3.3	10	2.2	0	0	0.006
	Never	26	5.6	24	5.2	17	3.7	4	0.9	6	1.3	
	Often	39	8.5	18	3.9	24	5.2	5	1.1	8	1.7	
	Seldom	17	3.7	21	4.6	15	3.3	4	0.9	0	0	
	Sometimes	53	11.6	43	9.4	52	11.7	22	4.8	4	0.9	
Do you think that your personal hygiene has declined?	Agree	37	8.1	15	3.3	32	7	17	3.7	3	0.7	0.01
	Disagree	28	6.1	23	5	17	3.7	5	1.1	6	1.3	
	No change	54	11.8	55	12	50	10	13	2.8	8	1.7	
	Strongly agree	7	1.5	4	0.9	10	2.2	5	1.1	0	0	
	Strongly disagree	21	4.6	27	6	14	3.1	5	1.1	1	0.2	

Table 4 Comparison of Psychological State of respondents during COVID19 lockdown according to Course of Study:

Questions	Options	1st Year		2nd Year		3rd Year		4th Year		Internship		P Value
		n	%	n	%	n	%	n	%	n	%	
Do you feel anxious if you are not able to upload your assignment?	Extremely anxious	15	3.3	27	5.9	19	4.2	10	2.2	14	3	0
	Moderately anxious	19	4.2	31	6.7	27	5.9	28	6.1	25	5.5	
	Not at all	9	1.9	6	1.3	14	3	9	1.9	39	8.5	
	Slightly anxious	7	1.5	15	3.3	11	2.4	7	1.5	20	4.3	
	Very anxious	15	3.3	30	6.6	25	5.5	16	3.5	19	4.2	
Have you ever been able to concentrate on whatever you're doing?	Always	10	2.2	12	2.6	9	1.9	4	0.8	15	3.3	0.016
	Never	1	0.2	9	1.9	3	0.7	8	1.7	7	1.5	
	Often	13	2.9	30	6.6	29	6.3	21	4.6	34	7.4	
	Seldom	2	0.4	17	3.7	10	2.2	2	0.4	16	3.5	
	Sometimes	39	8.5	41	8.9	45	9.8	35	7.6	45	9.8	
Do you feel that you cannot overcome your worries?	Always	5	1.1	5	1.1	11	2.4	5	1.1	10	2.2	0.045
	Never	18	3.9	34	7.4	18	3.9	10	2.2	29	6.3	
	Often	11	2.4	19	4.2	24	5.2	9	1.9	13	2.9	
	Seldom	13	2.9	17	3.7	15	3.3	10	2.2	16	3.5	
	Sometimes	18	3.9	34	7.4	28	6.1	36	7.9	49	10.7	
How do you feel about the alternative method of teaching?	Bored	22	4.8	35	7.6	31	6.8	14	3	41	8.9	0.034
	Depressed	6	1.3	8	1.7	7	1.5	5	1.1	3	0.6	
	Frustrated	17	3.7	20	4.3	27	5.9	30	6.6	28	6.1	

	Happy	12	2.6	23	5	8	1.7	7	1.5	20	4.3	
	Irritated	8	1.7	23	5	23	5	14	3	25	5.5	

Table 5 Comparison of Psychological State of respondents during COVID19 lockdown according to Year of Study:

IV. DISCUSSION

The aim of this study is to correlate the aftermaths of COVID 19 on the psychological changes of college students. In the end of December 2019 Corona Virus disease, due to the nature of its transmission, rapidly broke out in Wuhan, Hubei province in China and spread to the whole world. In February 2020, the World Health Organization (WHO) termed the disease “COVID 19” which stands for “Corona Virus Disease in 2020” [4]. The number of infected individuals world-wide, at the end of December 2019, was 266. The number quickly rose to 118,000 cases in 114 countries, and 4,291 people had lost their lives which led to the WHO declaring COVID-19 outbreak as a pandemic on 11 March 2020 [1]. The reason for this rapid world-wide spread of the disease is the result of various factors like the density of the population, the migration of people to other countries and the virulence and the mode of transmission of the virus [5].

The outbreak of COVID-19 has become a public health emergency of international concern (PHEIC) [6]. The primary goal of such public health measures is to prevent the person-to-person spread of disease by separating people to prevent transmission [7]. As the government had left with no choice instead of implementation lockdown in the country. Interventions are applied to the entire community, city, or country, designed to reduce personal interactions and movements [8]. One such intervention was the closure of schools and colleges. The responses to such situation vary according to different age groups. The nature of the depression and anxiety experienced by younger and older individuals may differ qualitatively [9]. Because of this, students are affected both their education and their psychological mindset [10][11].

It has been indicated that the increasing number of patients and suspected cases, as well as the increasing number of countries affected by the outbreak, have elicited public worry about being infected in this pandemic, which has increased anxiety [12][13]. In recent years, not only the outbreak of SARS in China has led to high incidence rate of mental disorders such as anxiety and depression but also people's fear of SARS has a significant impact on their mental health and as a consequence on their physical health [3]. Unfortunately, most of the news broadcast on COVID-19 is mostly disappointing and frustrating and sometimes such statistics come with some rumors, that is why when one is constantly exposed to COVID-19 news, the level of anxiety goes higher [14].

The sanitary conditions, the economy and security are better in cities are better than in towns and villages, which decreases the chances of survival of the virus [12]. Cities also have excellent educational resources, and they have made great efforts to publicize knowledge on how to prevent the

pandemic, which attracts attention to the measures taken to stop the pandemic. Chances of rapid spread of false information is increased due to easy accessibility to various social media platforms, especially by college students [15][16][17].

The results of this study indicated college students' anxiety regarding the pandemic was associated with their place of residence, whether living with parents and whether a relative or an acquaintance was infected with COVID-19. Due to the panic of epidemic situation and the unease of emotion of risk exposure, students are prone to anxiety and depression in the face of COVID-19, which may be related to the lack of understanding of the epidemic situation among the public, they lack a positive perception of prevention of it [12].

The findings of this study show that the majority of students have increased sensation of being vulnerable and nervous when people close to them are symptomatic of COVID 19 infection, especially if the protective wear is absent. In spite of knowing the risk of COVID 19, the refusal to wear masks by people, stating that it causes suffocation, is truly ill-advised.

The results of this study indicate that over 70% of the students have experienced difficulty in sleeping, mostly due to anxiety and worrying of the pandemic and its effect of uncertainty of the future [18]. Several studies indicated that females were more prone to report depression and anxiety or insomnia, while others reported a non-significant interaction of gender with anxiety and depression and sleep quality, suggesting that men and women might be equally concerned about this pandemic.

If the psychological pressure is huge and self-monitoring doesn't work, it is wise to seek professional psychological support in time. Students can also learn meditation and yoga, even via apps, to help calm emotions and relieve anxiety [19]. Although the living space is limited to a certain extent, it is still necessary to arrange some activities to get the control and pleasure of life, such as proper exercise, housework, reading, listening to music, dancing etc. to ease emotions. Meanwhile, students should keep good communication with friends and family, through various virtual technological platforms.

Following government orders, there is a need to prevent the spread of COVID 19 which can be triggered by mass gatherings. Learning must be carried out with scenarios that are able to minimize physical contact between students and other students, or between students and teachers. One alternative form of learning that can be carried out during the Covid-19 emergency is online learning. Several questions were asked to trace out the learning status during lockdown that includes modes of learning,

satisfaction with alternative method of teaching, problems faced during classes, etc.

Learning at home must be adjusted to the interests and conditions of each child and the teachers, which is realistically impossible, hence it's a disadvantage of online learning. Perceived ease of use and perceived usefulness are the two main factors affecting users' acceptance behaviors. But the findings of this study show the contrary.

It is found that the students were using various platforms for e-lectures, study material sharing and learning evaluation through various applications. More than 93% of students experience internet connectivity fluctuations, which result in difficulty in timely submission of the assignments which is experienced by 83% of the students. It is observed that students were more likely to study through shared study materials than attending online lectures mainly due to poor internet connectivity.

Students residing in rural and remote areas may face poor internet connectivity and unfavorable learning environment. Various other factors like availability of the device, inadequate space, battery issues and overheating of the device, contribute to the letdown of the Virtual experience ^[20].

One of the pillars of conventional learning is a relaxed environment surrounded by interactive teachers and a zone of comfort. 84% of students felt extreme isolation during online classes, which is indicative of asynchronous interaction of learning, which drastically impairs the quality of education and ultimately defies the purpose of itself ^[21].

Online instructors need to learn simple and easy-to-implement strategies that have a positive impact on student learning, which requires a great deal of flexibility from both learners and educators. Learning methods that are not well-used may be necessary like the use of multi-media, interactive sessions, and student feedback.

Students living in quarantine are very unique. Understanding the complexity of their experiences, beliefs, and attitudes about living in quarantine can help modify and better the strategy on student learning. Universities should also evaluate and understand the students and keep track of their mental and physical health.

V. CONCLUSION

In conclusion, we identified a major mental health burden of the public due to the long-lasting pandemic situation and arduous actions taken such as lockdown and stay-at-home orders. Young people, people who spent too much time, abnormally, in lockdown, are at high risk of developing psychological issues. The prevalence of anxiety and depression symptoms were found to be high in college students. Alleviating the perilous effects of COVID-19 on mental health is an international public health priority. The COVID-19 pandemic brings negative impact on students. Virtual learning is a practical stop-gap solution during this

epidemic but most of the students are not satisfied with it and if continued, it will negatively impact student's education and mental health.

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