



Impact of Covid-19 on Students' Mental Health and Confidence Levels

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ABSTRACT

With the sudden advent of COVID-19, a virus epidemic that was declared a pandemic by the World Health Organization in March 2020, the world underwent a dramatic and rapid change. With COVID-19's physical health hazards being given due consideration; the present research work serves as a platform to discuss its mental health implications on undergraduate and post graduate students in India, and the effect the situation is having on their confidence levels. A population-based cross-sectional study was carried out with the help of a questionnaire and the conclusions were drawn on the basis of the findings. The paper demonstrated how students' confidence while attending offline classes after being locked down in their homes as a result of the pandemic, is affected by their awareness about the pandemic, anxiety within them caused as a result of the pandemic and their responses to online education.

Keywords: Covid-19, Mental Health, Confidence Levels, Online Education

The notion of a pandemic, when applied to major global events spanning centuries; encompasses diseases with a wide range of etiological factors and epidemiologic characteristics.

The coronavirus disease 2019 (COVID-19), in particular, was discovered in China in December 2019, aggressively spread over the world, and within the span of a few months, was declared a pandemic by the World Health Organization on March 11, 2020. As of May 23, 2021, COVID-19 was related to almost 166 million confirmed cases and 3.45 million confirmed fatalities, making

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it one of the worst pandemics in history. The unforeseen outbreak of the virus that originated in China and later spread to the rest of the globe had unprecedented impacts on all aspects of the global society; economic, health, culture, environment, agriculture/food systems, apart from also substantially affecting the scenario of education and academics. As a result of the monstrous impact of the pandemic, academic institutions all across the globe had to shut their campuses in the spring of 2020.

India and Covid-19

India notified her first positive case of coronavirus on 30 January, 2020. As a preventive step and for the protection of the students and the academic community, practically all of the country's academic institutions were advised to shut for as long as the situation became more preferable.

The Prime Minister of India declared a nationwide lockdown on 24 March, 2020, for 21 days to break the cycle of the infection after India had identified her first case of Covid-19 in January 2020. According to data from the Ministry of Health and Family Welfare (MoHFW), there were 564 COVID-19 positive cases in India on the day of the declaration. The government was forced to prolong the lockdown several times due to the pandemic's outbreak on April 13, May 3, and May 18, respectively. From June onwards, the government began the Unlock process in three phases, each with further relaxations and specific precautionary steps, but academic institutions continued to operate from home and conduct online examinations till 31 August, 2020. The nation gradually became accustomed to the new situation at hand, academics and educational front starting gradually coming back to as they were pre-pandemic. During March, 2021 due to another spurge in the number of covid affected cases however, the education impartation had to yet again pause for some amount of time.

Changing Scenario of Education in India due to Covid-19

In countries like India, where education has majorly been traditionally imparted in a classroom- teaching manner, the pandemic of 2020 changed the understanding of the world as we previously knew it.

The unprecedented closing of all the academic institutions as a result prompted an almost instantaneous improvement in the way of impartment of pedagogical ideas among the students. This is when the authorities suggested resorting to the e-way of learning. The traditional methods of teaching in a physical form via the classrooms and notebooks was gradually replaced by the e-learning method.

The focus slowly shifted to concept-based learning and teachers started following a do-it-yourself practice for the children to become more self-reliant, since social gatherings at educational institutions were seen as a potential for the virus to spread. e-learning was

probably the greatest choice for preventing diseases from spreading as it ensured geographical separation despite the obstacles and analyzed figures.

The Covid-19 times have ushered in a new wave - a digital upswing in the whole education sector. From the early morning hustle of waking up, getting dressed, and hurrying to the school bus and gate just in time to now quickly and easily checking in with a click with or without school uniform worn in full.

The government initially declared the suspension of schools for a month, ascribed to the pandemic; but the time frame was steadily extended, and it was for a very long duration reasonably unclear when they would return. Various activities that are very critical take place during this period of the year, such as competitive exams and entrance tests for various universities, board examinations and semester examinations at universities, nursery school admissions, and university admissions. The suspension of schools and universities in India would not only have a short-term impact on the continuity of learning for young learners, but it will also have a significant influence on the country's economic growth as well as society. The closure of universities has had an impact on university students' learning.

Apart from the fact that e-learning has emerged as a knight in shining armour during this time of crisis, it also has a very promising yet understated feature. Because of e-learning many students can pursue learning courses of their own choice from institutions of their personal choice. Not only that, e-learning has also widened the horizons in terms of learning for students. One may be pursuing a certain degree in a subject from one university or institution whilst also pursuing a diploma or a certificate course in another subject. The student, as a result, becomes a self-directed learner who can study at any moment, both concurrently and asynchronously.

It also assisted in reducing the effort, travel expenditures, and other costs associated with traditional learning. Administrative work, planning and recording of lectures, attendance, and leaving courses were all considerably reduced by e-learning. Teachers and students alike notice how online learning methods allow them to pursue courses from anywhere and in tough situations that prevent them from being able to be physically present.

Covid-19 and the Challenges it is Posing Towards Education in India

There are however many limitations that also go hand in hand with all the advantages of e-learning. The most significant of them is acquiring knowledge only on a theoretical basis and putting what learners have learned into practice without having used practical skills. While the physical hustle-bustle has subsided, emotional and mental problems have increased to unprecedented levels merely because the world is going through such unsettled and painful times individually apart from the hardships being faced as a community of beings. This has

elicited a wide range of emotions throughout. As a result, incorporating mental health not just of students but also of educators and non-academic personnel is a top priority.

Many learners and instructors may be interested in the face-to-face learning experience that is absent. Other issues arise from online exams, which may be restricted to objective questions or some other methods that might not be as efficient as the proper written methods of examining the concepts of students writing the examinations. In addition to other difficulties that are usually associated with the abuse of technology, issues connected to the security of online learning programmes and user reliability are among the obstacles of e-learning. The primary disadvantage of adopting e-learning however, is the lack of important personal contacts, not just between students and professors, but also among peers. Many educational institutions have indeed also been forced to cancel courses, tests, internships, and other activities due to the lockdown, resorting instead to imparting education online. As a result, COVID posed numerous problems and opportunities for educational institutions to improve their cyber infrastructure. The lockout offered teachers and students a light of optimism that they can continue their instructional activities online. Teachers assigned assignments to students via the internet and provided lectures via video conferencing utilizing apps such as Zoom, Google Meet, Facebook, and Skype. For affective communication, there are WhatsApp groups of guardians, instructors, students, and parents who are always in touch to share their issues through this e-medium.

Besides the challenges related to quality education impartment, the students in secondary and tertiary school are known to be subjected to a variety of continuing normative stressors as a result of their ongoing academic expectations. However, the current situation, which has been exacerbated by the pandemic's social constraints, has resulted in extreme levels of academic stress among learners. There is ample evidence to suggest that severe and long-term academic-related stress has a negative impact on children's and teenagers' academic achievement, mental health, and well-being. Academic-related stress is linked to lower academic motivation and academic disengagement among students.

Significance of the Research

In the present paper, the author tries and reflects on the mental health challenges posed due to the sudden advent of the Covid-19 pandemic; if and consequently how, this entire catastrophe has also affected the confidence levels of the 67 population under consideration. The paper in addition, attempts to explore if the isolation period and in general, the complete atmosphere of desolation, might also have affected the learners' confidence associated to the daily activities such as standing up in the class while answering; interacting with the peers and teachers.

Review of Related Literature on Covid-19 and Education in India

Ciotti M., Ciccozzi M., Terrinoni A., Jiang W.C., Wang C.B., Bernardini S. (2020) discussed epidemiology, serological and molecular diagnosis, the origin of SARS-CoV-2 and its capacity to infect human cells, as well as safety concerns. The available COVID-19 medicines, vaccine research, the role of artificial intelligence in managing the pandemic and restricting the virus's spread, and the impact of the COVID-19 outbreak on lifestyle are then discussed with impeccable attention to detail.

Siddiqui A.F., Wiederkehr M., Rozanova L., Flahault A. (2020), looked at the impact of COVID-19 in India using screening and monitoring approaches, as well as the potential health system, social, political, and economic implications of the pandemic in the country. Ghosh A., Nundy S., Mallick T.K. (2020) elucidated upon the intricacies of how India as a nation dealt with this situation at hand. They explained where there was a detrimental impact on the economy and human life, there was a good influence on the environment. How India handled these three issues during and after the COVID-19 scenario, and how it might deal with them in the future if a similar situation resurfaces.

Gobe P.C., Gobe D., and Gobe A. (2020) discussed the scope of reopening educational institutions, changing course material in response to numerous challenges encountered by students during the online teaching learning process, adhering to health and safety norms, and so on in due consideration. On the other hand, Jena P.K. (2020), focused on the Impact of Covid-19 on Higher education in India. This leads to an understanding of some post-COVID-19 trends that could lead to new approaches of teaching and learning in higher education in India.

Majumdar P., Biswas A. & Sahu S. (2020) and Lathabhavan R. & Griffiths M. (2020); collectively, gave riveting insights on how the uncertainty in the domain of education may also very deeply and somewhat negatively affect the mental peace and calm of students in India.

The present paper aims to also in addition, analyze if and how the situation has also altered the levels of confidence within the students.

OBJECTIVES

The objectives of the present study are as follows:

1. To determine the awareness, anxiety and response to online education of the respondents.
2. To see the relationship among various variables (awareness about the pandemic, anxiety caused as a result of the pandemic, students' response to online education and confidence)
3. To study the confidence level with reference to awareness, anxiety and response to online education.

METHODOLOGY

The procedures or strategies used to find, select, process, and analyze information about a topic constitute research methodology. The methodology portion of a research article allows the reader to critically examine the study's overall validity and dependability.

For the purpose of the present study, a cross-sectional survey design was adopted to evaluate the students' awareness, change in attitude due to the COVID-19 induced home lockdown, and the impact of online education on the students. The survey was conducted via the online platform and the usage of various social media tools.

Population and Sample

The target population for the study under consideration were Undergraduate and Post Graduate students of various disciplines (Engineering, Commerce, Science).

A total of 325 responses were received through the collection of primary data using the questionnaire. Three responses were rendered incapable of being used for the purpose of study due to lack of responding on one variable. Thus, a total of **322** responses are being analyzed for the purpose of the present study.

Measurement Tool

The questionnaires were made available to the respondents' who met the inclusion criteria; by sending them it via e-mail or text messages. The respondents' answers to each of the questions based on COVID-19 was assessed using a self-made questionnaire (39 items) by the researcher. The questionnaire included 9 questions concerning the awareness of the respondents about COVID-19. The next 11 questions addressed the mental health of respondents in general and also as a consequence of the advent of the pandemic. The third objective was to examine the effect of online education and the response of the students to this sudden change of scenario; 13 questions were articulated to examine the response to this objective. The last set of 7 questions aims at understanding if the lockdown has somehow affected the confidence of the respondents as well. 37 of these questions were then clubbed into 4 categories (4 variables namely- awareness, anxiety, online education and confidence).

All the respondents could respond to each question in either a multiple-choice or multiple select way of responding to each question. The corresponding scores were pre-assigned to the respective responses given by the experimental units, using a three-point Likert-type scale; with higher scores indicating the more probable or better response to each of the question concerning all the four objectives of the study.

Sociodemographic factors included age, gender and the area of residence of the experimental unit.

All results of the quantitative variables were reported either as mean (M), or frequency (percentage %).

Karl Pearson's coefficient of correlation for two scale variables, Kendall's tau-b correlation coefficient for association between one scale and one ordinal variable or two ordinal variables, are used to analyze the results based on the questionnaire.

Apart from that, the concept of regression is also used in the paper in order to interpret how confidence level depends on the other three variables-awareness, anxiety and (response to) online education.

Data Analysis and Interpretation

On the basis of the collected data, analysis has been done as under:

Table 1: Descriptive Analysis of Sociodemographic Characteristics

Sociodemographic Characteristics	Total (n=322)	
	n	%
Gender		
Female	196	60.9
Male	126	39.1
Age (years)		
15-18	41	12.7
19-20	98	30.4
21-24	123	38.2
25 and above	60	18.6
Area of Residence		
Rural	81	25.2
Urban	241	74.8
Source of Information of COVID-19 related news		
Newspaper	54	16.8
News on the Internet	81	25.2
Television	99	30.7
Social Media	78	24.2
Other	10	3.1
Family contracted the virus		
No	104	32.3
Yes	218	67.7

Table 2: Awareness, Anxiety, Response to Online Education and Post Pandemic Confidence within Respondents

Item	n	%
What is the best kind of face mask for protection against COVID 19		
Any mask	37	11.5
Surgical mask or Triple layered mask	86	26.7
N-95	199	61.8
Which of the given, is the best way for protection against COVID-19 virus		
Social distancing	14	4.3
Double masking or getting vaccinated	5	1.6
All of the above	303	94.1
Was your sleeping pattern messed up because of the anxiety relating to COVID 19		
Definitely or only because of the news	179	55.6
Somedays	80	24.8
Not at all	63	19.6
How easy do you find coping with the syllabus online		
Very difficult	56	17.4
Manageable or Have to keep going with the flow	207	64.3
I find it more convenient than offline or now I have more time to study	59	18.3
Do you give enough consideration to soft skills while learning in the online mode		
No	19	5.9
Sometimes	70	21.7
Yes	233	72.4
Will there be an effect on your confidence once the offline classes are resumed		
I will feel less confident or it might feel weird for some time for sure	136	42.2
No, It's only a change of environment	72	22.4
I will feel as confident as earlier (pre COVID times)	114	35.4

Parametric Correlations (Karl Pearson’s r)

- ❖ H0: There is no correlation between the two scale variables
- ❖ H1: There is some correlation between the scale variables.

Table 3: Relationship among various variables

	Awareness	Online Education	Anxiety	Confidence
Awareness		0.103**	0.077**	0.031**
Online Education	0.103**		0.272*	0.342*
Anxiety	0.077**	0.272*		0.138*
Confidence	0.031**	0.342*	0.138*	

*-significant at 0.05 level of significance; **-significant at 0.01 level of significance.

Nonparametric Correlations (Kendall's tau b)

- ❖ H0: There is no correlation between the two variables
- ❖ H1: There is correlation between two variables.

Table 4: Non-Parametric Correlations

Variable 1	Variable 2	tau-b
Anxiety	How often one checked news	0.034*
Anxiety	If the family tested COVID positive	0.13**
Mental Health pre-post COVID	If family had financial stress	0.02*
Promptness in online classes	Confidence while in offline class.	0.17*
Alertness during online lecture	Promptness in online class	0.173**
Mental Health pre-post COVID	Ease in coping with syllabus online	0.113*

*-significant at 5% level of significance; **-significant at 1% level of significance.

Table 5: Confidence level in Accordance with Awareness, Anxiety and Online Education

Dependent Variable: CONFIDENCE	
R ² adjusted	Sig value
0.121	0
Independent Variables: AWARENESS, Anxiety And Online Education	
Model	For Confidence
Independent Variable	Standardized β
Awareness	-0.01
Online Education	0.312
Anxiety	0.114

The data presented in the Table 1 reveals that out of the 322 people that participated in the survey, majority identifies as Females (60.9%) and the remaining identified themselves as Males (39.1%).

Irrespective of their orientation, the average age of a respondent was 21.8 years. In addition, we may conclude that majority of people who took the survey (38.2%) were in the age category of 21-24 years; followed by 19–20-year-olds. (30.4%) Using this result one might be able to say that majority of the respondents (about 68.6%) respondents lay in the age bracket of 19-24 years.

Next, one may see evidently see that majority of the sample respondents belonged to urban area (74.8%). Inferring from the Table 1 itself that the most favourable source of information of COVID or things related was Television (30.7%) followed by the Internet (25.2%), closely followed by social media (24.2%) then other sources. (3.1%). Also, that about 67.7% (majority) of the respondents or their families tested positive at least once for the virus

Table 2, shows the results and one can infer that according to the survey, the best kind of face mask that one might use as a protection against the virus was N-95 mask (going by the majority- 61.8% responses in its favour). 94.1% of the respondents recognized all the ways of protecting themselves against the virus well. With the help of these two inferences, one might be able to say that a majority of the population is fairly aware of the pandemic and the main ways of their protection against the virus. More than half of the population (55.4%) admitted that their sleeping patterns were messed up as a result of the news or overdose of information regarding the COVID-19 pandemic. In addition, we see that 64.3% of the students agreed that although learning online was not the best experience for them, yet they found it manageable and understood that it was the best possible solution in a situation as dense as the pandemic. Another consideration while conducting the study was whether the entire shift in the teaching curriculum from the offline to the online mode, has caused a loss of certain soft skills in the students. One learns that 72.4% of the respondents feel that there has been no loss in the soft skills, with them agreeing that they indeed give enough consideration to soft skills in the online classes.

Another interesting outcome based on the data is that about 42.2% of the students do agree that they might (even if for a brief amount of time) feel a little less confident now when the classes reopen for offline lectures after the students been taught in the online mode of learning for quite a while.

What follows is the analysis to identify whether or not there is some sort of correlation i.e., some sort of mutual connection or relationship between two variables. The Table 3 indicates the mutual relationships between the four variables conceived with the help of 37 questions asked in the survey: awareness, anxiety, online education and confidence. At 5% level of significance (i.e., there is a 5% risk that the random sample we have chosen to conduct the survey is not a very good representation of the population) one is able to see significant correlations between awareness-anxiety, awareness-response to online education and awareness-confidence. Similarly, at 1% level of significance we see correlations between

Table 3, depicts that there is some positive mutual relationship between how often one checked the news about the coronavirus or the pandemic and anxiety they experienced as a result of it. There is also a positive correlation between a student's alertness in an online lecture and their promptness in learning in the online learning atmosphere. There also, exists a positive relationship between the respondents' mental health and the fact that their families

experienced some financial stress due to the pandemic induced situations. Furthermore, positive relationships between a respondent's anxiety and if their families tested positive for the coronavirus; and, a student's promptness while attending an online lecture with the fact that they would feel as confident when the classes are switched back to the offline mode; can be noted.

Using the results as presented in Table 5, a regression model for the variable of confidence when attending offline classes (once resumed post the pandemic), may be conceived. The independent variable for such a model would be Confidence, while the dependent variables would be- Awareness about the pandemic, Anxiety as a result of the pandemic, and an individual's response to Online Education. The regression coefficients for the dependent variables will be (-0.01), (0.312) and (0.114) respectively.

DISCUSSION/CONCLUSION

The present study collected data on four factors awareness about the coronavirus, anxiety related to the situation, response to online education and confidence levels on online platforms in India during the COVID-19 pandemic. Through a series of a number of questions, we obtain cumulative scores pertaining to each of the four variables. A few of the interesting things we concluded were as under:

- ❖ Awareness about the pandemic positively affects anxiety due to the pandemic among students.
- ❖ The students watching more news during the lockdown experienced lesser anxiety than the students who were less updated with the news.
- ❖ Given that students are fairly aware about the coronavirus and the pandemic as such, they will be most likely as confident attending offline classes post the COVID-19 pandemic as they were before it.
- ❖ The most reliable source of information for the students about the news regarding the pandemic was Television.
- ❖ People experiencing lesser anxiety due to the pandemic related news are likely to be just as confident attending offline classes after the pandemic as they were before its advent.
- ❖ A linear model explaining how Confidence depends upon Awareness about the pandemic, Anxiety due the pandemic and response to Online Education is given as:

$$\text{Confidence} = (-0.01) \text{ Awareness} + (0.312) \text{ Online Learning} + (0.114) \text{ Anxiety.}$$

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