Asian Journal of Advances in Research

4(1): 146-158, 2021

MENTAL STRESS IN ONLINE LEARNING DURING THE PANDEMIC: AN ASSESSMENT OF LEARNERS' PERCEPTION

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AUTHORS' CONTRIBUTIONS

This work was carried out in collaboration among all authors. Authors DP, GG, BKP, JJOC and IC designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. All authors managed the analyses of the study. Authors DP, GG, BKP, JJOC and IC managed the literature searches. All authors read and approved the final manuscript.

Received: 01 December 2020
Accepted: 06 February 2021
Published: 22 February 2021

Original Research Article

ABSTRACT

The world is probably facing the biggest health crisis in the history of the 21st century. The corona virus disease (COVID-19) pandemic has placed every nation on its knees shutting down various sectors and industries including the education system. Teachers, learners, and other education constituents are currently in turmoil as to what will going to happen to the education sector given the mandate of most governments worldwide regarding social distancing as part of the 'new normal'. It is in this sense, that educational institutions are developing an online program as a viable platform to facilitate learning and to ensure that learners continue their academic pursuits invarious social restrictions. However, online learning in itself is not without gray areas. UNESCO would say that students find a hard time to cope with the demands of online learning. As a result, they often end up in deep anxiety just to meet their online academic requirements. This study, therefore, focused on gathering data on the stress that the pandemic stimulated among learners as they continue to embark on their academic responsibilities using online learning as a tool in pursuing their academic endeavors given the social restrictions of the new normal.

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Keywords:SARS-CoV-2;coronavirus; education; stress; learners; pandemic; new normal.

1. INTRODUCTION

The coronavirus disease 2019 (COVID-19) has marked itself in the historicity of the world. As of May 25, 2020, there are reported 5,494,458 individuals worldwide who are currently suffering from this infectious disease; out of the positive cases, there are 346,437 reported fatalities and 2,299,347 individuals who recovered and survived the battle against this menacing adversary. The United States is still having the greatest number of cases with 1,686,442 infected individuals and a total of 99,300 deaths and 451,702 recoveries [1]. Every nation was not prepared for the pandemonium that this unseen foe has brought into their social landscape. The world is facing another global health crisis since the time of the Black Plague and the Spanish Flu wherein fatalities were unimaginable. Consequently, the World Health Organization (WHO) had declared a global pandemic due to the fast and unique transmission of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) from one host to the other without obviously manifesting itself. On a broader scale, the disease this virus caused was unprecedented and overwhelming that it shudders the government and every sector and industry in the world [2] adopting a new model of operation. One of which is the education sector.

The SARS-CoV-2 has brought the world especially the education sector to an unchartered territory [3] leaving the people nothing but their ability to adopt to the changes it engendered. The education sector of government has taken necessary measures in respond to the imminent threat this pandemic has to the lives of educators, learners, and other school personnel. Hence, educational institutions were forced to end, if not momentarily suspend their classes in the middle of the school year and made some precautionary measures to ensure the safety of the educational constituents especially the learners. Due to the COVID-19 pandemic, universities and colleges around the world were required to close temporarily to help the local officials contain the virus. In a report, the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) discovered that the closures of schools, colleges, and universities in the middle of the school year 2019-2020 have affected 1,198,530,172 learners 70% of the world's student population.

In effect, leaners were left uncertain about their academic undertakings and stressed-out on how to cope up with the new norms brought about by the pandemic. However, to ease the anxiety that learners are undergoing most educational institutions thought of some modifications in the entire education system so that learning would not be compromised amidst the worldwide ruling on social distancing. The overarching principle behind this modification in the education system is to facilitate learning from the comforts of learners' homes [4]. Hence, almost all educational institutions are promoting homeschooling and developing modules, means, and ways on how this plan might work in ensuring that learners are still able to meet the standard educational requirements set by their schools, colleges, and universities. Synchronous learning is very important in the entire learning from, however, in this time of pandemic it is better to have new ways and means to innovate and facilitate learning so that no one is left behind and there is no better way but to shift learning from the confines of the classroom to the comforts of one's home, making it somewhat an academic institution. Nevertheless, to still facilitate learning and meet the academic requirements of learners while being tangibly present at home, educational institutions have adopted eLearning or online classes.

eLearning is a "form of learning designed to create an online communication between the teacher and the student" [5] making the home an extension of the academic space. Moreover, Montoya [4] argued that in making the home an alternative academic institution, the parents and adults are responsible for helping the learners have a suitable learning environment. In eLearning, parents and adults become facilitators of learning in the absence of the teacher. In general, eLearning aims at complementing distance learning or learning done inside the classroom so that the learning process does not stop inside the classroom instead continues up to the premises of the home. This makes learning dynamic. During the pre-pandemic scenario, eLearning is only adjacent and secondary to distanced learning; it is never intended to replace distance learning. However, in the context of the lingering catastrophic phenomenon that the world is experiencing due to the COVID-19 disease, eLearning might cease to just complement distance learning; it might be, in the 'new normal', the viable means not the customary distance learning in ensuring that the education of learners is not jeopardized and that their academic needs are met. This forced students to shift into online learning from the traditional and usual classroom type of learning. This shift in the approach done by the education sector is one of the many ways to aid students whose academic careers are affected by the pandemic. However, this shift from online learning is not free from issues and problems. According to a pulse report done by

Pearson and Connections Academy [6] while having a positive impact on the learning process especially during this time of the pandemic, still students are experiencing hardships and stress from this new mode of learning. Online learning has a positive and negative side as to how learners went through the process. It is n this light that this study wishes to express itself. This study, therefore, focuses on the stress that the pandemic stimulated among learners as they continue to embark on their academic responsibilities using online learning as a tool in pursuing their academic endeavors given the social restrictions of the new normal.

2. DATA AND METHODS

This deals with a detailed description of the study area, source of data, study population, sampling technique, study variables, sample size determination, and study design explanation about the theory behind the methods and models for the analysis.

2.1 Study Area

The study was conducted in fourteen countries like Australia, Canada, Denmark, France, Germany, India, Indonesia, Italy, Macedonia, Malaysia, Nederland, Netherlands, Pakistan, Philippines, Russia, UK, and the USA.

2.2 Study Design

For this study, a cross-sectional data collection method was done, which is appropriate when one or more than one variable is collected for several sample units at the same points in time.

2.3 Sampling Technique

Sampling techniques are a system of taking a small ratio of observation from a large population to get information on those large populations from the sampled observation by using somestatistical techniques. For this study, we use simple random sampling techniques by selecting an appropriate sampling size from the population in the above-mentioned countries.

2.4 Sample Size Determination

Determining the sample size for a study is a crucial component of study design. The goal is to include sufficient numbers of subjects so that statistically significant results can be detected. To have an optimum sample size, there are many issues/points one has to take into account. Then, where the required sample size is a 95% confidence level for normal distribution which is 1.96 is a margin of error (5%).

In order to get desired sample size, we use the formula accordingly, the sample size determination formula adopted for this study was

$$n = \frac{z^2 * \hat{p} * (1 - \widehat{p})}{e^2}$$

$$n = \frac{1.96^2 * 0.2 * (1 - 0.2)}{0.05^2} = 245$$

Thus, for the case above, a sample size of at least 245 people would be necessary.

2.5 Method of Data Collection

Primary data collection was used to collect raw data from the respondent through online questionnaires. In this study, the researcher collected the data from a different level of education like High School, Junior College, Under Graduates, Graduates, Masters, and Doctorates of fourteen countries as mentioned above directly in a particular time (primary data).

2.6 Study Variables

The dependent variable for this study was the stress level of the persons on online education due to the impact of covid 19. Here are some explanatory variables with their categories that affect their stress level on online education. Therefore, the independent variables included in this study were list out below in Table 1.

Table 1. Independent variable included in the present Study

Variables	Category(Coding)	
Gender	1.	Male
	2.	Female
Education level	1.	High School
	2.	Bachelors
	3.	Masters
	4.	Doctorate
	5.	Others

Variables	**Category(Coding)**	
Income	1.	Less than $ 250
	2.	$ 250 - $ 499
	3.	$ 500 - $ 749
	4.	$ 750 - $ 999
	5.	$ 1000 and more
Dissatisfied with the Grade	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Too much Of School Work	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Too much of Home Work	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Academic Pressure	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Parents Care about my Grades	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
The pressure of Learning every day	**1.**	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Too many tests and Exams	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
The academic grade through online	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Disappointed my parents in grading	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Disappointed my Teachers	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Too much competition among classmates	1.	Strongly Disagree

Variables	Category(Coding)	
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Lack of Confidence in my Score	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Difficult to Concentrate	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Feel Stressed	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Fail to live up to my standard	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree
Cannot Sleep	1.	Strongly Disagree
	2.	Disagree
	3.	Neutral
	4.	Agree
	5.	Strongly Agree

2.7 Statistical Data Analysis

Descriptive Statistics Descriptive statistics consists of the collection, organization, summarization, and presentation of data. In descriptive statistics, the statistician tries to describe a situation. Once data is collected, the researcher must organize and summarize them. Finally, the researcher needs to present the data in some meaningful form, such as charts, graphs, or tables.

Correlation: We compute Karl Pearson's Correlation Coefficient which is widely used for determining the degree of relationship between two variables. Here we briefly mention the main steps as follows:

Step 1: If X and Y are two random variables considering n observations (x1,y1),(x2,y2),(x3,y3)(xnyn), the covariance between x and y is given by

$$\text{Cov(x,y)} = \frac{1}{n}\sum_{i=1}^{n}(\text{xi} - \bar{\text{x}})(\text{yi} - \bar{\text{y}})$$

Step 2: We compute the variances of the variables X and Y as

$$\text{V(x)} = 1/n(\sum_{i=1}^{n}(xi - \bar{x})^2 \text{ and}$$
$$\text{V(y)} = 1/n(\sum_{i=1}^{n}(yi - \bar{y})^2$$

Step 3: The Correlation coefficient (r) between X and Y is given by

$$\text{r} = Cov(x,y)/\sqrt{V(x)V(y)}$$

2.8 Hypothesis Testing for ANOVA

Step 1: We calculate the value of the test statistic χ^2using the formula given below:

$$\chi^2 = \frac{(n-1)s^2}{\sigma^2}$$

where s^2 is the sample variance and σ^2 is the population variance
Letx_{cal}^2 be the calculated value of the test statisticχ^2.

Step 2: We obtain the critical (cut off or tabulated value) values as test statistic χ^2

Corresponding to the given value of significance (α)

Step 3: Using the p-value approach

We calculate the p-value using the following formulae as required:
p-value = 2P[$x^2 \geq x_{cal}^2$] [for two-tailed tests]]

We compare the calculated p-value with the given level of significance (α). If the p-value is less than or equal to α, we reject the null hypothesis and if it is greater than α, we do not reject the null hypothesis

Step 4: Conclusion

If the null hypothesis is rejected, we conclude that the sample provides us sufficient evidence against the null hypothesis at α % level of significance.

If the null hypothesis is not rejected, we conclude that the sample does not provide us sufficient evidence against the null hypothesis at α% level of significance.

2.9 Hypothesis Testing on the Individual Factor

We first formulate the null hypothesis (H_0) and the alternative hypothesis (H_1) for each factor of the population.

1. There is no significant relationship between the stress level and gender v/s
   There is a significant relationship between the stress level and gender at the level of significance = 0.05.
2. There is no significant relationship between the stress level and education level v/s
   There is a significant relationship between the stress level and education level at a level of significance = 0.05.
3. There is no significant relationship between the stress level and income level v/s
   There is a significant relationship between the stress level and income level at a level of significance = 0.05.
4. There is no significant relationship between age and stress level v/s
   There is a significant relationship between age and stress level at a level of significance = 0.05.

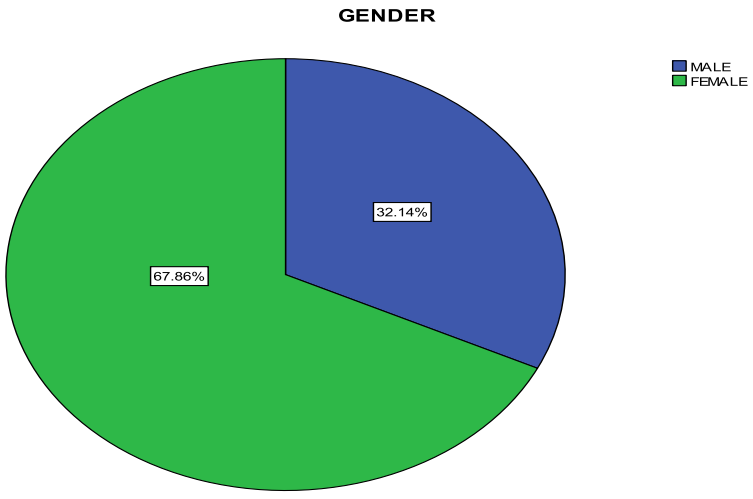
3. STATISTICAL SOFTWARE'S FOR STATISTICAL ANALYSIS SPSS VERSION 20 SOFTWARE WAS USED AT A 5 % LEVEL OF SIGNIFICANCE

3.1 Results and Discussions

The objective of this study was to describe and make analysis about the effect of different factors like income, age, the dissatisfaction of (grades, parents, teachers), too much (school work, competition), everyday learning, and lack of sleep on the stress of the candidate on online education.

In this study, descriptive analysis, the Chi Square test, and correlation analysis were employed to identify the risk factors. Data analysis was presented in this study based on a total of 245 candidates.

Table 2: The descriptive statistics revealed that the candidates who attended the online classes are 224 and not attended the online classes are 24 with a minimum age of 18 and maximum age of 41 along with stress scale 1 and maximum scale 5 and the no of female candidates 152 and female candidates 72.



Percentage of respondents based on gender

Table 2. No of respondents

Respondents who attended the online class: 224					
Respondents who didn't attend the online class: 24					
Total sample size: 248					
Gender					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	MALE	72	32.1	32.1	32.1
	FEMALE	152	67.9	67.9	100.0
	Total	224	100.0	100.0	

Table 3. Shows the Distribution of candidates based on a different country

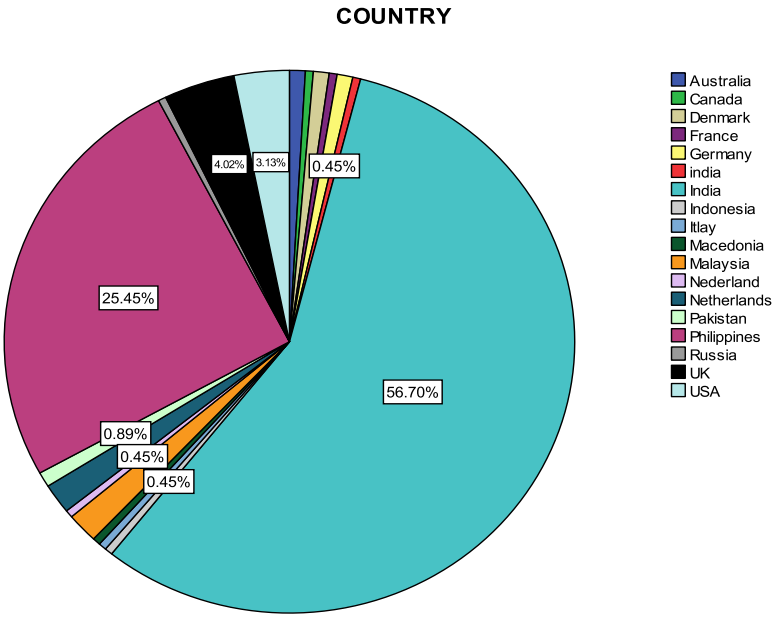
Country					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Australia	2	.9	.9	.9
	Canada	1	.4	.4	1.3
	Denmark	2	.9	.9	2.2
	France	1	.4	.4	2.7
	Germany	2	.9	.9	3.6
	India	1	.4	.4	4.0
	India	127	56.7	56.7	60.7
	Indonesia	1	.4	.4	61.2
	Itlay	1	.4	.4	61.6
	Macedonia	1	.4	.4	62.1
	Malaysia	4	1.8	1.8	63.8
	Nederland	1	.4	.4	64.3
	Netherlands	4	1.8	1.8	66.1
	Pakistan	2	.9	.9	67.0
	Philippines	57	25.4	25.4	92.4
	Russia	1	.4	.4	92.9
	UK	9	4.0	4.0	96.9
	USA	7	3.1	3.1	100.0
	Total	224	100.0	100.0	

Table 4. The distribution of candidates based on a different level of education

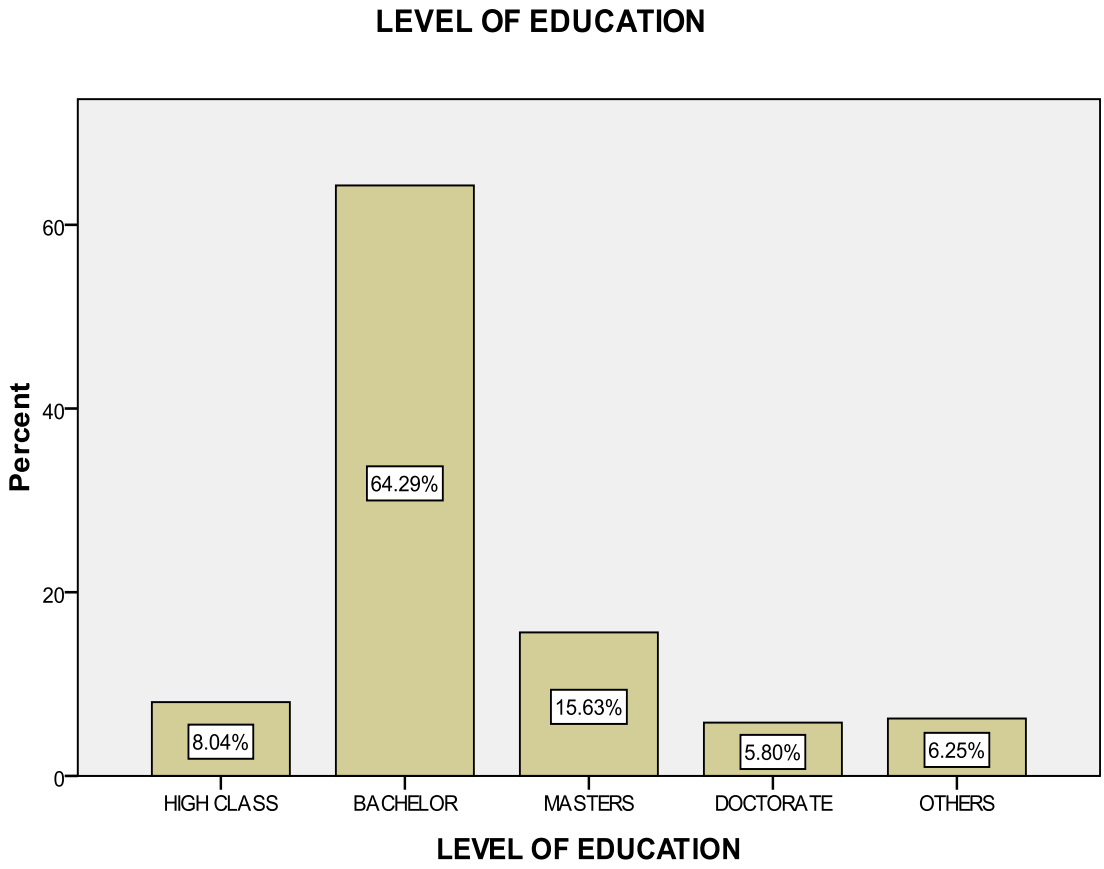
Level of Education					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	High class	18	8.0	8.0	8.0
	Bachelor	144	64.3	64.3	72.3
	Masters	35	15.6	15.6	87.9
	Doctorate	13	5.8	5.8	93.8
	Others	14	6.3	6.3	100.0
	Total	224	100.0	100.0	

Table 5. The distribution of candidates based on income

Income					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	LESS THAN $250	66	29.5	29.5	29.5
	$250-$499	39	17.4	17.4	46.9
	$500 -$749	41	18.3	18.3	65.2
	$750-$999	18	8.0	8.0	73.2
	$1000 AND MORE	60	26.8	26.8	100.0
	Total	224	100.0	100.0	



Pie chart for the distribution of candidates from different countries



Percentage of different levels of Education from different countries

Table 6. The Distribution of respondents perception to the questions related to online class

Descriptive Statistics				
	N	**Minimum**	**Maximum**	**Mean**
Dissatistifed with the grade	224	1	5	3.25
Too Much of School Work	224	1	5	3.53
Too Much of Homework	224	1	5	3.52
Academic pressure	224	1	5	4.07
Parents care about my grades	224	1	6	3.27
Pressure of learning everyday	224	1	6	4.18
Too many tests and exams	224	1	5	3.44
Academic grade through online	224	1	5	3.71
Disappointed my parents on grading	224	1	5	3.17
Disappointed my teachers	224	1	5	3.17
Too much competition among classmates	224	1	5	3.24
Lack confidence in my score	224	1	5	3.39
Difficult to concentrate	224	1	5	4.05
Feel stressed	224	1	5	3.88
Fail to live up to my standard	224	1	5	3.88
Cannot sleep	224	1	5	3.61
Valid n (listwise)	224			

Table 7. Test statistics is Pearson's Chi square (test for independence)

Variables	**Pearson Chi-square**	**Asymp. Sig (2-sided)**	**Inference**
I am very dissatisfied with my grades in online learning during the quarantine	4.361	0.359	Accept Ho
I feel that there is too much schoolwork in online learning during the quarantine	3.833	0.429	Accept Ho
I feel there is too much homework in online learning during the quarantine	8.385	0.078	Accept Ho
Future education and employment bring me a lot of academic pressure in this time of the pandemic	10.384	0.034	Reject Ho
My parents care about my grades in online learning too much that brings me a lot of pressure in this time of the pandemic	14.802	0.011	Reject Ho
I feel a lot of pressure in studying and learning online every day in this time of the pandemic	9.353	0.096	Accept Ho
I feel that there are too many tests/exams given through online learning during the quarantine	5.169	0.270	Accept Ho
Academic grade in online learning is very important to my future and even can determine my whole life during the quarantine and after the pandemic	3.845	0.427	Accept Ho
I feel that I have disappointed my parents when my test or exam results in online learning are poor in this time of the pandemic	4.860	0.302	Accept Ho
I feel that I have disappointed my teacher when my test or exam results in online learning are not satisfactory in this time of the pandemic	7.241	0.124	Accept Ho
There is too much competition among classmates that brings me a lot of pressure in studying and learning online during the quarantine	0.565	0.967	Accept Ho
I always lack confidence with my scores in online learning during the quarantine	5.150	0.272	Accept Ho

Variables	Pearson Chi-square	Asymp. Sig (2-sided)	Inference
It is very difficult for me to concentrate during online learning classes at this time of the pandemic	8.353	0.079	Accept Ho
I feel stressed when I do not live up to my standards in this time of the pandemic	9.015	0.061	Accept Ho
When I fail to live up to my expectations, I feel I am not good enough in this time of the pandemic	4.680	0.322	Accept Ho
I usually cannot sleep because of worry when I cannot meet the goals, I set for myself in this time of the pandemic	9.677	0.046	Reject Ho

Table 8. Reveals that the inferences are drawn between the stress of differnet level of education
Hypothesis: There is no significant relation between the stress level and education level
Vs
There is a significant relationship between the stress level and education level
at significance level = 0.05

Variables	Pearson Chi-square	Asymp. Sig (2-sided)	Inference
I am very dissatisfied with my grades in online learning during the quarantine	10.498	0.839	Accept Ho
I feel that there is too much schoolwork in online learning during the quarantine	19.956	0.222	Accept Ho
I feel there is too much homework in online learning during the quarantine	8.991	0.914	Accept Ho
Future education and employment bring me a lot of academic pressure in this time of the pandemic	10.577	0.835	Accept Ho
My parents care about my grades in online learning too much that brings me a lot of pressure in this time of the pandemic	25.468	0.184	Accept Ho
I feel a lot of pressure in studying and learning online every day in this time of the pandemic	20.034	0.456	Accept Ho
I feel that there are too many tests/exams given through online learning during the quarantine	21.834	0.149	Accept Ho
Academic grade in online learning is very important to my future and even can determine my whole life during the quarantine and after the pandemic	27.389	0.037	Reject Ho
I feel that I have disappointed my parents when my test or exam results in online learning are poor in this time of the pandemic	17.425	0.359	Accept Ho
I feel that I have disappointed my teacher when my test or exam results in online learning are not satisfactory in this time of the pandemic	21.441	0.162	Accept Ho
There is too much competition among classmates that brings me a lot of pressure in studying and learning online during the quarantine	31.917	0.010	Reject Ho
I always lack confidence with my scores in online learning during the quarantine	29.355	0.022	Reject Ho
It is very difficult for me to concentrate during online learning classes at this time of the pandemic	18.586	0.291	Accept Ho
I feel stressed when I do not live up to my standards in this time of the pandemic	18.444	0.299	Accept Ho
When I fail to live up to my expectations, I feel I am not good enough in this time of the pandemic	18.644	0.288	Accept Ho
I usually cannot sleep because of worry when I cannot meet the goals, I set for myself in this time of the pandemic	15.069	0.520	Accept Ho

Table 7 shows the inferences of different factors of stress levels based on different gender. I.e., the stress level of each candidate is due to i. Dissatisfaction with grades ii. Too much schoolwork iii. Too much homework iv. Every day studying v. Too many tests vi. Grades vii. Disappointment to teachers and parents viii. A lot of pressure, competition among classmates ix. Lack of confidence and concentration (x.) cannot live up to one's standards and expectations.

Table 8. Reveals that the inferences are drawn between the stress of different levels of education I e., the stress level of each candidate is due to i. grades ii. Too much schoolwork, homework, tests, exams iii. Disappointment to parents and teachers iv. Future education and employment v. Difficult to concentration vi. Cannot live up to one's standards and expectations. and vii. Lack of sleep

Table 9.Reveals that the inferences are drawn between the stress level of income during the pandemic. I e., the stress level of each candidate is due to 1. Too much homework, much competition among classmates 2. Future education and employment 3. A lot of pressure on one's grade 4. Every day studying 5. Importance of online learning which determines the future of whole life 6. Lack of confidence and sleep 7. Cannot live up to one's standards and expectations.

Table 10. reveals that the inference is drawn between age and stress level.

Table 9. Inferences drawn between stress level of income during the pandemic

Variables	Pearson Chi-square	Asymp. Sig (2-sided)	Inference
I am very dissatisfied with my grades in online learning during the quarantine	27.350	0.036	Reject Ho
I feel that there is too much schoolwork in online learning during the quarantine	29.914	0.018	Reject Ho
I feel there is too much homework in online learning during the quarantine	20.332	0.206	Accept Ho
Future education and employment bring me a lot of academic pressure in this time of the pandemic	23.198	0.109	Accept Ho
My parents care about my grades in online learning too much that brings me a lot of pressure in this time of the pandemic	27.911	0.112	Accept Ho
I feel a lot of pressure in studying and learning online every day in this time of the pandemic	26.166	0.160	Accept Ho
I feel that there are too many tests/exams given through online learning during the quarantine	30.277	0.017	Reject Ho
Academic grade in online learning is very important to my future and even can determine my whole life during the quarantine and after the pandemic	18.041	0.321	Accept Ho
I feel that I have disappointed my parents when my test or exam results in online learning are poor in this time of the pandemic	28.822	0.025	Reject Ho
I feel that I have disappointed my teacher when my test or exam results in online learning are not satisfactory in this time of the pandemic	29.748	0.019	Reject Ho
There is too much competition among classmates that brings me a lot of pressure in studying and learning online during the quarantine	25.383	0.063	Accept Ho
I always lack confidence with my scores in online learning during the quarantine	14.524	0.560	Accept Ho
It is very difficult for me to concentrate during online learning classes at this time of the pandemic	14.932	0.530	Accept Ho
I feel stressed when I do not live up to my standards in this time of the pandemic	15.059	0.520	Accept Ho
When I fail to live up to my expectations, I feel I am not good enough in this time of the pandemic	14.068	0.594	Accept Ho
I usually cannot sleep because of worry when I cannot meet the goals, I set for myself in this time of the pandemic	20.931	0.181	Accept Ho

Table 10. Correlation between Age and Stress Level

		Age	sum
Age	Pearson Correlation	1	.012
	Sig. (2-tailed)		.854
	N	224	224
sum	Pearson Correlation	.012	1
	Sig. (2-tailed)	.854	
	N	224	224

4. DISCUSSION AND CONCLUSION

The purpose of the study was to investigate the level of stress of the learners as they continue to embark on their academic responsibilities using online learning as a tool in pursuing their academic endeavours during the covid-19 pandemic. For this purpose, we analyze the effect of different factors like income, age, the dissatisfaction of (grades, parents, teachers), too much (school work, competition), everyday learning, and lack of sleep on the stress of the candidate on online education. data were collected through online questionnaires from 245 students from 14 countries including Australia, Canada, Denmark, France, Germany, India, Indonesia, Italy, Macedonia, Malaysia, Nederland, Netherlands, Pakistan, Philippines, Russia, UK, and USA. Selected through simple random sampling technique. The sample participants included students studying a different level There is a significant relationship between the stress level on the gender with the factors related to future education and employment, caring of educational programs like High School, Junior College, Under Graduates, Graduates, Masters and Doctorates of fourteen countries. Results indicate about the grades by their parents and lack of sleep when they cannot meet the goal. Similarly, a significant positive relation was also found between stress level and students Lack confidence and dissatisfaction with their grades scores in online learning during the quarantine. As stress occurs when a person is uncertain about something important, it affects both the body and mental health [7,8,9 AND 10] Students stress for future education and employment, Lack of confidence and dissatisfaction with their grades scores in online learning might be due to their fear and anxiety about their online classes as the massive transmission of the fake news over social sites (Facebook, WhatsApp, Twitter etc.) and media has created stressful atmosphere and chaos for the students. The scary atmosphere is affecting the concentration level and the learning ability of the students. The results of the study are in line with other similar studies [11,12,13,14] which revealed that stress of the students affect their academic grades.

The COVID-19 pandemic posed significant concerns among students and teachers. The consequences of this pandemic can be worsened for psychologically weak students and teachers. Therefore, the study recommends that academic staff should give their students more time for course work submission, are requested to be clear about assessment methods, and not to add more work as a substitute for exams because of the new situation everyone is facing. Additionally, all educational institutes need to periodically organize workshops related to the use of online learning and teaching. Likewise, a short course on stress management needs to be mandatory for all the students so that they can beat the stress in similar catastrophic events. Above all, there is a need to be relaxed and have a sound sleep to avoid the bad consequences of this menacing environment.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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