

 ISSN NO. 2320-5407	Journal Homepage: www.journalijar.com INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) Article DOI:10.21474/IJAR01/12483 DOI URL: http://dx.doi.org/10.21474/IJAR01/12483	 INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407 Journal Homepage: http://www.journalijar.com Article DOI:10.21474/IJAR01/12483
---	--	---

RESEARCH ARTICLE

IMPACT OF COVID-19 PANDEMIC ON ANXIETY AND OBSESSION LEVEL OF THE UNIVERSITY STUDENTS AND ITS RELATION TO THEIR ACADEMIC PERFORMANCE

Vandana¹ and Nudrat Saleem²

1. Research Scholar, Department of Educational Studies, Faculty of Education, Jamia Millia Islamia, New Delhi, India. Email- vandanadaksh00@gmail.com
2. Research Scholar, Department of Educational Studies, Faculty of Education, Jamia Millia Islamia, New Delhi, India. Email- researchscholarnudrat@gmail.com

Manuscript Info

Manuscript History

Received: 15 December 2020

Final Accepted: 18 January 2021

Published: February 2021

Key words:-

Anxiety, Obsession, Corona Virus,
Academic Performance, University
Student

Abstract

With the spread of COVID-19 pandemic, concerns related to panic and increasing anxiety have been multiplying by each passing day. Consequently, schools, colleges, educational institutions, and workplaces have been shut since mid of March, 2020 in India. This study attempted to find the psychological repercussions on academic performance of university students while focusing upon finding the anxiety and obsession level related to COVID-19. The study exhibited the correlation between anxiety and academic performance of university students and between the level of obsession and academic performance related to coronavirus among university students of India. 157 students from the age group of 17-25 years enrolled to undergraduate and postgraduate courses participated in the study. Snowball sampling technique was used to reach students through online mode. Two tools, namely, CAS (Coronavirus Anxiety Scale) and OCS (Obsession with COVID-19 Scale) developed by Prof. Sherman Lee with the team of psychologists from the Christopher Newport University were adapted for the presented study by further adding a dimension of 'academic performance' in the tool. The results revealed that 10.8% students were highly anxious and 28% students were highly obsessed with the coronavirus and have developed disturbed thinking patterns. The correlation between anxiety and academic performance of students as well as between obsession and academic performance of students were found to be statistically significant ($p \leq .001$) with a moderate level of correlation. Overall, the study found that the outbreak of coronavirus has impacted the psychological health as well as the academic performance of university students in India.

Copy Right, IJAR, 2021,. All rights reserved.

Introduction:-

January 2020 started with worldwide warning given by the WHO about the global health emergency and outbreak of global pandemic COVID-19. That was the time when the world took the first step towards a change. The Government of India imposed lockdowns, strict social distancing, school and offices shutdown and the exponential infection rate (Lee, 2020a) became part of our normal lives. Prior to this incident, the current generation had only seen a few events

Corresponding Author:- Vandana

Address:- Research Scholar, Department of Educational Studies, Faculty of Education,
JamiaMilliaIslamia, New Delhi, India.

in history like Tsunami, regional wars and droughts (Picou, & Marshall, 2020) but none have caused such a worldwide chaos and panic as the COVID-19 disease. With the news of deaths and looking at the surrounding, anxiety and fear clutched the psyche of people around. Rationally, people understand the medical reasons of isolation and quarantine but the basic human right of being able to meet family during sickness and to die amongst one's own people has been taken away by this anti-human virus. The emerging guilt and injustice mixed with anger and resentment are shaping a very new form of psychological status in the left behind relatives and families of the sick and demised. Visiting the family and friends, gym, morning walks, worklife, offices, etc. are some long forsaken normality which is amiss since the lockdown. As a result, this anxiety and obsession with coronavirus has been heightened among the youth who have been facing the innate uncertainty of the situation aggravated by the unstable online classes, exams, results and admissions (Lee, 2020b).

New Corona pandemic and the related lockdowns have caused maximum disruptions in the academic world and a collateral damage to the students. The damage caused to the individual student is temporary but the consequences go far deeper than the whole. With low levels of learning and higher levels of drop-outs, students affected by COVID-19, will be less productive and skilled than the generations who have less exposed to pandemic learning gap (Dorn, Hancock, Sarakatsannis, & Viruleg, 2020). Extended time off from college may lead to more variability in achievement and academic performance when students return to their further studies and regular colleges (Soland, Kuhfeld, Tarasawa, Johnson, Ruzek, & Liu, 2020). Prior researches have shown that any natural calamity and disasters in the past have negatively affected the mental and academic health of students. Symptoms of depression, social and emotional needs and disruption in studies will manifest in coming years in forms of various academic and skill gaps. Loss of a family member, neighbour or friend may shatter the aspirations, hopes and positivity in youth. The fear of catching the infection from the virus themselves has resulted in a high level of distraction and low motivation levels among students (Picou, & Marshall, 2020).

Anxiety corresponds to an emotional trauma from a present or future threat which is manifested in psychopathic arousals and escape behaviour. Anxiety is a vague fear which fades much slower and is accompanied by appetite loss and feeling of nausea, over thinking, irregular sleep patterns, excessive worry and unrelenting tension (Lee, 2020a). Whereas, Obsession is a thought that continually intrudes the stability of mind at regular intervals and compels a person to behave in a certain manner. Corona obsession is considered in this paper which is directly related to the COVID-19 related anxiety and stress (Lee, 2020d).

According to WHO (2020), there was huge progression of number of cases of COVID-19 from January 2020 to mid of July 2020 in India (World Health Organization, 2020). The first person with COVID positive was reported on 1st February 2020 in India and thereafter, there has been a domino-effect corresponding to a huge increase in the number of the confirmed, recovered and deceased individuals due to coronavirus outbreak up to 18th July 2020. At the time of conducting the study, the number of cases was at its peak in India.

Review of Literature:-

Despite six months of the standstill and increasing impediments in routine life, very little literature was found on the impact of COVID-19 on academic performance and psychological health of the college students. A similar study was conducted to see the impact of COVID-19 anxiety on Chinese university students in Nankai University, Tianjin, China by Chongying Wang and Hong Zhao. The study took a sample of 3800 undergraduate students, and has been treated as baseline for further studies on the similar topic, did show a high level of anxiety among the students during COVID-19 pandemic (Wang, & Zhao, 2020).

However, the general psychological status of the students was good which laid a sound foundation of the new term 'online learning'. One more analogous study conducted by the medical practitioners at the Chang Zhi Medical College, Changzhi, China titled 'the Impact of COVID-19 on Anxiety in Chinese University Students' (Cao, W, Fang, Hou, G, Han, M, Xu, X., Dong, & Zheng, 2020). The sample of the study included around 7000 college students and showed a varying degree of anxiety among the students depending upon various factors. About 24.9% students experienced heightened anxiety issues where factors like; living with parents in urban areas and steady family income acted protectively whereas, economic stressors and delay in academics acted as additional stressors. Another such study conducted in the University of Bedfordshire, United Kingdom on a similar topic examined the relationship between anxiety and academic performance of international students in postgraduate courses in the University of Bedfordshire. A qualitative analysis of 105 postgraduate students reflected that cultural difference, language barrier, discrimination, and differences in educational systems created a deeper sense of anxiety among international students

during the COVID condition, although the results cannot be generalized due to various study related limitations (Adeoye, 2015). A report highlighted that in a survey conducted in March, 2020 indicated that 75% of the higher education students in United States have experienced anxiety and depression because of the crisis resulting from the spread of and lockdowns because of COVID-19 outbreak. Some corrective measures have now been taken to combat anxiety manifested by the pandemic at an international level in some higher educational institutes as reported by the impact analysis and policy recommendations of UNESCO titled “COVID-19 and higher education: Today and tomorrow” (UNESCO IESALC, 2020). For the students, the most immediate impact has naturally been that the temporary cessation of face to face teaching at higher education institutions has left them, particularly, undergraduates and those who are about to finish upper secondary and aspire to enter higher education, in a completely new situation, without a clear idea of how long it will last, immediate impacts on daily life, costs incurred and financial burdens and, of course, learning continuity and international mobility. A university in Venezuela has formed a psychological support group to help students deal with confinement related anguish and anxiety during the pandemic. The University of Cartagena (Colombia) launched a virtual window for student welfare specifically during the lockdown. In India, a study was conducted to assess the perceived stress and coping strategies among B.Sc. nursing students of selected colleges in Pune during COVID-19 pandemic lockdown (Sheroun, Wankhar, Devrani, PV, Gita, & Chatterjee, 2020). The study indicated moderate level of perceived stress among students and high level of perceived stress among fourth year students and thus, suggested the authorities to take immediate measures to reduce stress and anxiety among students.

As shown in the studies above, with the imposing anxiety and obsession from COVID-19 and its possible correlation to the academic performance of higher education students, the present study was focused on finding the anxiety and obsession level related to COVID-19 among undergraduate and postgraduate students and its relation to their academic performance during lockdown as very less number of studies have been conducted in this area in India.

Objectives of the Study:-

1. To study the level of anxiety in relation to COVID-19 among higher education students of Delhi-NCR.
2. To study the level of obsession in relation to COVID-19 among higher education students of Delhi-NCR.
3. To study the relationship between the level of anxiety with COVID-19 and academic performance of higher education students of Delhi-NCR during COVID-19.
4. To study the relationship between the level of obsession with COVID-19 and academic performance of higher education students of Delhi-NCR during COVID-19.

Methodology:-

Population and Sample:

Descriptive survey design was used to gather data for the present study. The targeted population comprised of undergraduate and postgraduate students of different higher education institutions in the capital region of Delhi, India. Due to COVID-19 pandemic, online mode of data collection was adopted via Google forms by employing Snowball Sampling technique using various social media platforms to circulate the questionnaire to the targeted population. Data were collected from November 1 to November 10, 2020. A total of 170 students of undergraduate and postgraduate courses from different universities of Delhi-National Capital Region participated in the study, out of which 157 signed the consent form and filled the online questionnaire.

Tool for Data Collection:

The research team of Psychologists from the Christopher Newport University studied the psychological price of a pandemic of what the team deliberately calls the “disenfranchised grief” means shared by the wider population who are going through the news and updates about the pandemic around them. This team has developed the first tool to screen the Corona phobia- a virus-fuelled anxiety. Professor Sherman Lee, together with his team mates developed two tools, namely, Corona-Virus Anxiety Scale (CAS) (Lee, 2020c) and Obsession with COVID-19 Scale (OCS) (Lee, 2020d). These tools are now being used around the world by medical practitioners to track the psychological burdens of the pandemic. The tool consists of two screening tests which examine people who are supposed to be at risk of anxiety or psychological issues. The scale was developed after studying the patterns of psychological tensions of 775 people who experienced dizziness, sleeplessness, nausea and no interest in eating and felt paralysed due to anxiety conditions of COVID. The reliability of the CAS is 0.90 with solid factorial and construct (correlated with anxiety, depression, suicidal ideation, and drug/alcohol coping) validity. The diagnostic properties of CAS (90%

sensitivity and 85% specificity) could be compared to the related and well-known scale on Generalized Anxiety Disorder-7 (Lee, 2020c).

The other scale, Obsession with COVID-19 (OCS), measures disturbed thinking, non-stop dreams about Coronavirus. The OCS was developed on two large samples of adults ($n = 775$; $n = 398$) residing across the United States (Lee, 2020d). The reliability of OCS is more than 0.83 with solid factorial and construct validity correlated with coronavirus anxiety, spiritual crisis, alcohol/drug coping, extreme hopelessness, and suicidal ideation. The diagnostic properties of the OCS (81% to 93% sensitivity and 73% to 76% specificity) are comparable to related screening instruments, such as the General Health Questionnaire (GHQ) (Lee, 2020d).

For the present study, these two scales were adapted in English version after taking author's permission via email and both scales are made freely available to be used for a research study. The final questionnaire for the study included 4 statements of CAS and 4 statements of OCS, with each statement rated on a 5-point scale (Likert Scale) from 0-Never, 1-Rarely, 2-Sometimes, 3-Often and 4- Almost every day. As per the requirement of the present study, the authors included one more dimension of academic performance in the tool which further included 4 statements based on student's experiences of their learning during COVID-19. These 4 statements were also rated on a 5-point Likert scale from 1-Do Not Agree to 5-Highly Agree.

Scoring and Interpretation of Tools:

The scoring guidelines of the CAS and OCS as given in the Corona anxiety manual were followed for the tool. As per the manual, for the first four statements related to 'CAS', a total score of ≥ 9 indicates probable dysfunctional coronavirus-related anxiety (Lee, 2020c). Very high scores on a particular item or a high total scale score (≥ 9) may indicate problematic symptoms for the individual that might require further medical assessment or treatment. For the next four statements related to 'Obsession with COVID-19', a total score of ≥ 7 indicates probable dysfunctional obsession about COVID-19 (Lee, 2020d). Very high scores on a particular item or a high total scale score (≥ 7) may indicate problematic symptoms for the individual that might require further medical assessment or treatment. The last four statements under the dimension of 'academic performance', a total score of ≥ 8 indicates highly negative impact of COVID-19 on the academic performance of the students. Table 1 indicates the scoring and interpretation of the tool briefly.

Table 1:- Scoring and Interpretation of the calculated mean score values.

S.No.	Category	Mean Score	Interpretation
1.	CAS	≥ 9	High Anxiety and indicate problematic symptoms
2.	OCS	≥ 7	High Obsession and indicate problematic symptoms
3.	Academic Performance	≥ 8	High Negative Impact of COVID-19

Analysis:-

Descriptive statistics were conducted such as mean and standard deviation for the analysis of the data. Mean would indicate the average responses of participants in the study on each statement and standard deviation would indicate the deviation in the scores of participants from the mean. Pearson Correlation Coefficient was used to calculate the correlation between anxiety and academic performance as well as between obsession and academic performance of the sample. The Pearson Correlation coefficient would indicate the linear relationship between two variables in the study, i.e., Anxiety related to COVID-19 and its relation to Academic Performance of students. The correlation coefficient of '1' would indicate high positive correlation, '-1' would indicate high negative correlation and '0' would indicate no correlation between two variables (Garrett, 1937). All tests were two-tailed, with a 0.01 significance level and statistical analysis was performed using SPSS Statistic 26.0 version.

Results:-

Characteristics of Study Respondents:

There were a total of 170 responses to the questionnaire collected from November 1st to November 10th in the state of Delhi-NCR in India. Out of the total responses, 7.7% of participants denied to participate in the study by saying no to the consent form attached with the questionnaire. Thus, 157 responses to the survey were taken forward for the analysis and interpretation. The age range of students was 20-25 years among them 56% were females and 44% were male students from two major streams of Social Sciences and Applied sciences (courses like Education, Psychology,

Commerce, Nursing, Law, Literature and Computer Sciences and Engineering participated in the present study). Out of 157 responses, 76.2% were undergraduate students and rest 23.8% were postgraduate students. The objective based findings based on the analysis are described below:

Objective 1:

To study the level of anxiety in relation to COVID-19 among higher education students of Delhi-NCR.

Table 2:- Mean and Standard Deviation Scores of Coronavirus Anxiety Level among University Students of Delhi-NCR.

N	Mean	Standard Deviation
157	3.75	3.1

The results showed that out of 157, only 17 respondents scored more than or equal to 9 which reflected probable dysfunctional coronavirus-related anxiety among them. Rest 140 respondents scored less than 9 as a total of their scores on all 4 statements which states less or no dysfunctional coronavirus-related anxiety among higher education students. The mean score of coronavirus anxiety scale was 3.75 as shown in Table 2 which was less than the calculated mean value of 9. It indicated that on an average, higher education students who participated in the study did not develop anxiety during COVID-19, though; the severe impact of anxiety due to COVID-19 on few students could not be ignored.

Objective 2:

To study the level of obsession in relation to COVID-19 among higher education students of Delhi-NCR.

Table 3:- Mean and Standard Deviation Scores of Level of Obsession with Coronavirus Pandemic among University Students of Delhi-NCR

N	Mean	Standard Deviation
157	4.91	3.7

Table 3 highlighted the mean value of 4.91 which was less than the calculated mean value of 7. It reflects that on an average the respondents were not obsessed with the coronavirus pandemic. Though, the results also revealed that 36 respondents out of 157 have scored more than or equal to 7, which indicates probable dysfunctional thinking pattern about COVID-19.

Objective 3:

To study the relationship between the level of anxiety and academic performance of higher education students of Delhi-NCR during COVID-19.

Table 4:- Correlation between Anxiety and Academic Performance of University Students.

		Anxiety	Total
	Pearson Correlation	1	.427**
Anxiety	Sig. (2-tailed)		.000
	N	157	157
	Pearson Correlation	.427**	1
Academic Performance	Sig. (2-tailed)	.000	
	N	157	157
**Correlation is significant at the 0.01 level (2-tailed)			

To study the impact of COVID-19 on the academic performance of higher education students, four statements based on 5-point Likertscale were asked. The results revealed that the mean score of 144 respondents out of 157 were found to be 13.7 which were far more than the calculated value of 9. It showed that the coronavirus pandemic has severely affected the academic performance of higher education students. The correlation between anxiety and academic performance during COVID-19 was found to be significant at 0.01 as highlighted in Table 4. Though the correlation value is not very high but results showed that a value of 0.427 indicates moderate correlation between the level of anxiety and academic performance of respondents during coronavirus pandemic.

Objective 4:

To study the relationship between the level of obsession with COVID-19 and academic performance of higher education students of Delhi-NCR during COVID-19.

Table 5:- Correlation between Obsession and Academic Performance of University Students.

		Obsession	Total
	Pearson Correlation	1	.417**
Obsession	Sig. (2-tailed)		.000
	N	157	157
	Pearson Correlation	.417**	1
Academic Performance	Sig. (2-tailed)	.000	
	N	157	157

**Correlation is significant at the 0.01 level (2-tailed)

Table 5 reflects the correlation value of 0.417 between obsession and academic performance during COVID-19. It indicates that a moderate level of correlation exists between these two variables which were found to be significant at 0.01 level of confidence.

Discussion:-

The unprecedented changes brought by novel coronavirus pandemic around the world, has affected the psychological state of many. The present study attempted to explore the two main elements of mental health such as anxiety and obsession with COVID-19 and its correlation with the academic performance of the undergraduate and postgraduate students of higher education. As per the results of the study, 10.8% of total respondents were found to have severe level of anxiety as they scored more than the calculated value of 9 and majorly COVID-19 had negative psychological impact on university students in terms of anxiety level. The results are in cognizance with the study conducted in China on the impact of covid-19 on anxiety in Chinese university students which showed higher anxiety for COVID-19 among college students (Wang,& Zhao,2020)

The result of obsession with COVID-19 explored the persistent and disturbed thinking patterns related to COVID-19 among university students. The result indicated that 23% students were found to be having obsessed with the disturbed thinking patterns related to COVID-19. The correlation between anxiety and academic performance as well as obsession and academic performance during COVID-19 among university students was also found to be statistically significant at 0.01 level of confidence, though the correlation value indicates moderate level of correlation between the variables in both the cases. Previous studies have similar results where nursing students' anxiety about COVID-19 have been related to the effect of this virus on their academics (Cornine, 2020; Duraku, &Hoxha, 2020)and making a significantnegative impact on mental health of college students (Kecojevic,Basch, Sullivan,&Davi, 2020) and its probable future consequences Wang&Zhao,2020). Also, it has been seen that the students' anxiety may have been caused by the increasing social distancing among people due to this virus. It is also said that anxiety among people will keep on increasing and get worsened due to physical distancing and lack of communication (Xiao,2020; Kmietowicz et al., 2020).

Conclusion:-

The findings of the study contemplate the impact of the physical distancing and rising spread of the coronavirus on student's psychological health and academic performance. Though, a majority of participants reported having moderate or mild level of anxiety and obsession related to COVID-19 but 10.8% having high anxiety and 28% having high obsession levels with COVID-19 indicates the need of immediate medical help or assessment. A majority of students (91.7%) responded to have a highly negative impact of COVID-19 on their academic performance and significant relationships were found between anxiety and academic performance as well as between obsession and academic performance.

Although the findings of the study are limited in terms of generalization as they cater to the limited sample of students, but the results reflect the significant impact of COVID-19 pandemic on the academics taking into consideration the multiplied spread and impact of the virus in the country. An informed prediction about the future change in behaviour of university students could be formed. The results also highlighted the importance of providing emotional support

and counselling services to the students and identify the factors which are affecting their academic performance during these uncertain times by the higher education institutions.

References:-

1. Adeoye, D. (2015). The Relationship Between Anxiety and Academic Performance of Postgraduate International Students in a British University: A Cross-Sectional Quantitative Design. *Science Journal of Public Health*, 3, 331. DOI: 10.11648/j.sjph.20150303.15.
2. Cao, W., Fang, H., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research*, 287, 112934. Retrieved from: <https://doi.org/10.1016/j.psychres.2020.112934>
3. Cornine, A. (2020). Reducing Nursing Student Anxiety in the Clinical Setting: An Integrative Review. *Nursing education perspectives*, 41(4), 229–234. Retrieved from: <https://doi.org/10.1097/01.NEP.0000000000000633>
4. Dorn, E., Hancock, B., Sarakatsannis, J., Viruleg, E. (2020). COVID-19 and student learning in the United States: The hurt could last a lifetime. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime#>
5. Duraku, Z. H., & Hoxha, L. (2020). The impact of COVID-19 on higher education: A study of interaction among students' mental health, attitudes toward online learning, study skills, and changes in students' life. *Research Gate*. Retrieved from: <https://www.researchgate.net/publication/341599684> The impact of COVID-19 on higher education A study of interaction among students' mental health attitudes toward online learning study skills and changes in students' life
6. Garrett, H. E. (1937). *Statistic in Psychology and Education*. 2nd ed. Longmans Green.
7. Kecojovic, A., Basch, C. H., Sullivan, M., & Davi, N. K. (2020). The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. *PLOS ONE*. 15(9): e0239696. Retrieved from: <https://doi.org/10.1371/journal.pone.0239696>
8. Lee, S. A. (2020a). Measuring Coronaphobia: The Psychological basis of the Coronavirus Anxiety Scale. Dusunen Adam: *The Journal of Psychiatry and Neurological Sciences*. DOI: 33.10.14744/DAJPNS.2020.00069.
9. Lee, S. A. (2020b). Replication analysis of the Coronavirus Anxiety Scale. Dusunen Adam: *The Journal of Psychiatry and Neurological Sciences*. 33. DOI: 10.14744/DAJPNS.2020.00079.
10. Lee, S. A. (2020c). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*. 44:7, 393-401, DOI: 10.1080/07481187.2020.1748481
11. Lee, S. A. (2020d). How much “Thinking” about COVID-19 is clinically dysfunctional? *Brain, Behavior, and Immunity*. Retrieved from: <https://doi.org/10.1016/j.bbi.2020.04.067>
12. Picou, S., & Marshall, B. (2020). Social Impacts of Hurricane Katrina on Displaced K–12 Students and Educational Institutions in Coastal Alabama Counties: Some Preliminary Observations. *Sociological Spectrum - SOCIOL SPECTRUM*. 27, 767-780. DOI: 10.1080/02732170701534267.
13. Sheroun, D., Wankhar, D. D., Devrani, A., PV, L., Gita, S., & Chatterjee, K. (2020). A Study to Assess the Perceived Stress and Coping Strategies among B.Sc. Nursing Students of Selected Colleges in Pune during COVID-19 Pandemic Lockdown. *International Journal of Science and Healthcare Research*. Volume 5. Issue: 2. Pages: 280-288. Retrieved from: https://ijshr.com/IJSHR_Vol.5_Issue.2_April2020/IJSHR_Abstract.0038.html
14. Soland, J., Kuhfeld, Tarasawa, Johnson, Ruzek, & Liu. (2020). The impact of COVID-19 on student achievement and what it may mean for educators. *Brookings*. Retrieved from: <https://www.brookings.edu/blog/brown-center-chalkboard/2020/05/27/the-impact-of-covid-19-on-student-achievement-and-what-it-may-mean-for-educators/>
15. UNESCO IESALC. (2020). COVID-19 and higher education: Today and Tomorrow. *Impact analysis, policy responses and recommendations*. Retrieved from: <http://www.guninetwork.org/publication/report-covid-19-and-higher-education-today-and-tomorrow-impact-analysis-policy-responses>
16. Wang, C., & Zhao, H. (2020). The Impact of COVID-19 on Anxiety in Chinese University Students. *Frontiers in Psychology*. 11. doi:10.3389/fpsyg.2020.01168
17. World Health Organization. (2020). Coronavirus disease (COVID-19) outbreak situation. *WHO*. Retrieved from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
18. Xiao, C. (2020). A Novel Approach of Consultation on 2019 Novel Coronavirus (COVID-19)-Related Psychological and Mental Problems: Structured Letter Therapy. *Psychiatry investigation*. 17(2), 175–176. Retrieved from: <https://doi.org/10.30773/pi.2020.0047>.