

STUDENTS' MENTAL HEALTH, STRESS, ACADEMIC ANXIETY AND KNOWLEDGE OF COVID-19 AMONG HIGHER EDUCATION STUDENTS

P. Janardhana Kumar Reddy, Department of Education

Bharathiar University, Coimbatore, India

Abstract

COVID-19 is a wide-reaching health emergency which makes the globe to a standstill with supreme and unexpected impact in our life. The present study is focused on the mental health, stress and academic anxiety among students of higher education. This study was conducted to know the level of mental health stress and academic anxiety of the higher education students during this pandemic virus period. The sample consists of 883 various higher education students from all over Tamil Nadu, India. An online survey was conducted using a questionnaire, and snowball sampling technique has been used for the selection of sample. The data were analysed using a 't' test and percentile of the response. The major findings of the study revealed that there is a significant difference in the Covid-19 crisis knowledge and adaptations of the pandemic situation of the higher education students of India with respect to sex, course of studying, discipline within its higher education institutions.

Keywords: mental health, stress, academic anxiety, higher education, pandemic

Introduction

COVID-19 was reported practically at every corner of the planet and has affected millions of people. Though the infection originated from China, the worst affected country was America, which was followed by Spain, Italy, Germany and France. The World Health Organization (WHO) declared the 2019–20 corona virus outbreaks a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 and a pandemic on 11 March 2020. The evidence of local transmission of the disease have been found in many countries across all six WHO regions and most of the countries have announced an emergency alert throughout their countries. The control of the COVID-19 spread has been very difficult as half of the patients kept spreading the virus even after resolution of their symptoms. During this situation, students are in need of support and alternative educational resources to continue their studies. Advice and proceedings from the Ministry of Human Resource Development (MHRD) and University Grants Commission (UGC) have given various favourable alternatives to the state government. The corona virus spread to the world widely from December 2019 onwards. Since it spreads hastily around the globe, the WHO has acknowledged the COVID-19 a pandemic. Due to a lack of knowledge awareness about the

symptoms and preventive measures of COVID-19 more people have been affected and admitted to hospitals. Most of the older people and those who are under treatment are at higher risk of illness.

As COVID-19 has become more widespread, it has left millions of students affected in their studies. Schools, colleges, and universities have shut down. Millions of students seem to be psychologically worried about their career and their further studies. Governments around the country are reacting in varying degrees to the crisis. Teacher educators try to guide younger generations through this pandemic by giving correct directions, giving support and guidance to their students like awareness about Covid-19, and ways to face the mental health, stress, and anxiety in this period.

The students still seem mentally distressed about their further studies and may have developed academic anxiety about future academic outcomes. The present study attempted to shed light on the students' knowledge of COVID-19, their mental health, stress, and academic anxiety among the higher education students of all over Tamil Nadu.

Need for the Study

India, being a large and densely populated country, implemented preventive measures to curb the spread of the disease COVID-19 which includes closing of schools/educational institutions and other nonessential facilities. India has the second-largest education system in the world after China. Different sectors, including the education sector, have seen a setback due to the COVID-19 being on the rise. The lives of every individual in the country seems to have been largely affected. As every individual's life is being affected, the life of a student is no less of concern. At this time of crisis, it becomes challenging to keep their education continuous and unaffected due to this disastrous pandemic. There needs to be a system where there is togetherness between the students and teachers without actually being face-to-face.

The corona virus issue has thrown challenges all over the world as seen by those struggling for economic, education, and day-to-day needs. The student community was directly affected all over the country and it is unknown at the writing of this paper about the further scope of higher studies. The students from school level to higher education level were waiting for solutions to be found for their year-end exams. The outbreak of this dreadful corona virus may bring students distress and have a severe impact on their mental health, stress, and anxiety. It is believed that the higher education students should acquire basic knowledge about COVID-19 and preventive measures against it. Physical health, physical distancing and hygiene are some of the important solutions in this scenario to get relief from stress about this situation. The central government, state government authorities, and policymakers are defining solutions and remedy from this pandemic situation and provide solutions to the education sector.

UGC provides guidance and clarifications to the government to formulate action plans for effective adaptation without affecting the carrier and studies of the students. End term

examinations, entrance examinations and admissions to the higher studies are the immediate concerns. UGC suggested to conduct multiple-choice question based examination which is easy to conduct, evaluate and declare the results by taking the specificities of the different courses into account. UGC also suggested using an online model for teaching and learning. Here the stress and academic anxiety started in the minds of the students since most of the students belong to poor and weaker sections of the society that do not have accommodations for the intensive online requirements needed. The families, homes, neighborhoods and localities are not suited to facilitate learning through online modes because it is not possible to have smart phones, laptops, personal computers, workable broadband connections. Secondly, there is concern about the ability and willingness of the faculty to adopt online modes since they are accustomed to old methods of teaching.

Another critical issue is the availability of libraries which are very important in higher education institutions. The majority of students rely upon the library to prepare for competitive examinations and to secure stable employment. Even now, as this paper is being written, the educational institutions are closed beginning from March 2020 in India. In this present study, the investigator studied the knowledge of COVID-19 precautions, mental health, stress, and anxiety among the students of higher education in Tamilnadu. The findings will help the educationalists and the government to take remedy during the outbreak and commence counseling and guidance for further actions.

Objectives of the Study

The present study has the following objectives:

1. To study the knowledge of COVID-19 precautions, mental health, stress and academic anxiety among higher education students of Tamil Nadu - India.
2. To determine if there is significant difference in the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu – India based on their a) gender b) course of study c) type of institutions and d) discipline

Delimitations of the Study

The present study has the following delimitations;

1. The investigators selected only 883 students in Tamil Nadu, for the study.
2. The investigator selected samples only from Tamil Nadu.
3. The survey was collected through internet access only.

Hypothesis

1. There is significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu with respect to gender (a) male (b) female.

2. There is significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu with respect to a) Under Graduate b) Post Graduate c) Research Scholar

3. There is significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu based on students' a) discipline b) higher educational institutional level.

Methodology

Population of the Study

The investigator used a cross sectional survey which was conducted between 5th May 2020 and 12th June 2020. Since the data were collected during the lockdown period from all over Tamil Nadu – India, higher education students are used in the study.

Sample and Sampling Technique

The investigator used a cross sectional survey which was conducted between 5th May 2020 and 12th June 2020. Since the data were collected from higher education students during the lockdown period from all over Tamil Nadu, a snow- ball technique, which is a type of non-probability sampling technique, was used to collect the responses from the participants. A sample of 883 people of Tamil Nadu participated.

Data Collection

For the data collection, the investigator conducted an online survey which contains a questionnaire regarding knowledge on COVID-19 precautions, mental health issues, stress and academic anxiety was sent out to higher education students. An online questionnaire was developed by using Google forms. Participants willingly participated in the study and were thus considered excused from written informed consent. The questionnaire contains four parts. In the first part the demographic variables such as gender, course studying, discipline, type of the agency/institution were incorporated. The second, third and fourth part contains 30 questions to measure the knowledge on COVID-19 precautions, mental health issues, stress and academic anxiety. Knowledge on COVID-19 precautions, mental health questions assigned 4 choices and academic anxiety assigned Yes/No type questions.

Statistical Analysis

After collecting the data, data entry and statistical analysis was performed with the statistical package for SPSS program for windows (Version-23). Descriptive statistics, such as percentages, means, and standard deviations were calculated. T.-Test and ANOVA were used to analyze the dependent (knowledge, mental health, stress and academic anxiety), and independent variables (demographic characteristics of the participants). Statistical significance was considered at P value of less than 0.05 for all analyses.

Analysis of the Data

Table 1

Mean score of knowledge on COVID-19 precautions, mental health issues and academic anxiety by higher education students of Tamil Nadu.

N (number of Students)	Mean score
883	19.41

The above table 1 shows the mean score of knowledge on COVID-19 precautions, mental health issues and academic anxiety towards higher education students of Tamil Nadu. The mean value (19.41) is nearer than the mid value (20.00) however, the difference is significant and hence, higher education students of Tamil Nadu have average score of the knowledge on COVID-19 precautions, mental health issues and academic anxiety.

Hypothesis 1: There is significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu with respect to (a) male (b) female.

Table 2

A significant difference between the knowledge of COVID-19, mental health, stress and academic anxiety among higher education students of Tamil Nadu with respect to (a) male (b) female.

Variables	Categories	N	Mean	SD	t-Value	Level of Significance
Gender	Male	328	19.43	3.271	0.158	NS
	Female	555	19.40	3.199		

Note. Significance at 0.05 level

Table 2 shows that the calculated value of 't' (0.158) is lesser than the table value (1.98) at 0.05 significant level with respect to gender and thus there is no significant difference in the knowledge of COVID-19 precautions, mental health, stress and academic anxiety among higher education students of Tamil Nadu. With respect to gender and hence it is to reject the hypothesis

1.

Hypothesis 2: There is significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu with respect the course of study.

Table 3

A significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu with respect to the course of study.

Figure 1. Course Studying by graduate levels

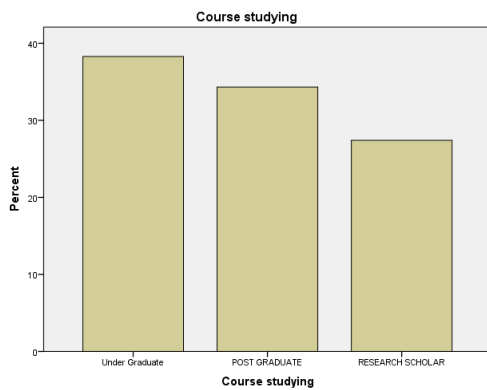


Table 3 shows higher education students of Tamil Nadu with respect to the course of study

	Sum of Squares	df	Mean Square	F- Value	Sig.	Result
Between Groups	280.363	2	140.183	3.0059	0.000*	NS
Within Groups	8888.269	880	10.100			
Total	9168.632	882				

Note. Significance at 0.05 level

Table 3 shows that the calculated value of ‘F’ (3.0059) are lesser than the table value (3.0) at 0.05 levels with respect to the course of the study, hence the formulate hypothesis-2 is rejected and thus there is no significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students (Under graduate, Post graduate and Research scholar) of Tamil Nadu with respect the course of study.

Hypothesis 3: There is significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu based on their a) discipline b) educational institutional types.

Figure 2. Higher education students of Tamil Nadu with respect to the course discipline

Discipline					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Arts	422	47.8	47.8	47.8
	Sciences	313	35.4	35.4	83.2
	Engineering	50	5.7	5.7	88.9
	Medical	13	1.5	1.5	90.4
	Technical (ITI/ Diploma)	8	.9	.9	91.3
	Social sciences	77	8.7	8.7	100.0
	Total	883	100.0	100.0	

A significant difference between the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety among higher education students of Tamil Nadu based on their discipline and educational institutional types.

Table 4

Discipline and Educational Institutional Types

Variable	Source of variance	Sum of Squares	DF	Mean Square	F- Value	Sig.	Result
Discipline	Between Groups	228.063	5	45.613	2.2243	0.000*	NS
	Within Groups	8940.561	877	10.194			
	Total	9168.632	882				
Educational Institutional Types	Between Groups	228.063	5	45.613	0.0255	0.000*	NS
	Within Groups	8940.569	877	10.194			
	Total	9168.632	882				

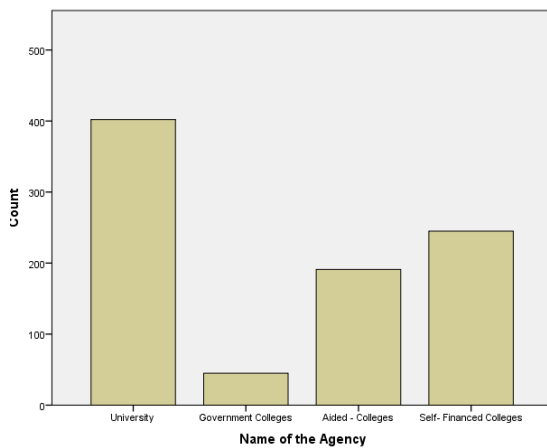
Table 4 shows that the calculated value of 'F' (2.2243, 0.0255) is less than the table value (3.0) at 0.05 level with respect to the discipline and Educational institutions types respectively, hence the formulate hypothesis-3 is rejected and thus there is no significant difference between the knowledge of COVID-19,

mental health, stress and academic anxiety among higher education students of Tamil Nadu with respect the course of study and Educational institutional types.

Figure 3. Higher education students of Tamil Nadu with respect to the institutions type

Name of the Agency				
	Frequency	Percent	Valid Percent	Cumulative Percent
University	402	45.5	45.5	45.5
Government Colleges	45	5.1	5.1	50.6
Aided - Colleges	191	21.6	21.6	72.3
Self- Financed Colleges	245	27.7	27.7	100.0
Total	883	100.0	100.0	

Figure 4. Names of the Agencies



Findings

1. The higher education students have attitudes towards their knowledge, mental health, stress and academic anxiety in the period of pandemic situation of COVID-19.
2. There is no significant difference between the mean scores of male and female higher education students' attitudes towards their knowledge, mental health, stress and academic anxiety.
3. There is no significant difference between the mean scores of higher education students' attitude towards their knowledge, mental health, stress and academic anxiety.
4. There is no significant difference among the mean scores of UG, PG and Research scholars' educational qualification of students' attitude towards their knowledge, mental health, stress and academic anxiety.

Discussion

From the present study, it is clear that the higher education students have positive knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety in Tami Nadu. The study also reveals that the means scores of social science discipline students (20.57) have more knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety in Tami Nadu. Generally, all higher education students have enough knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety in Tami Nadu because of continuous awareness given from the university and central and state government.

The study also reveals that the male and female higher education students do not differ much in their knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety. The gender difference shows that the male and female both are of similar variation in their knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety.

During the COVID-19 pandemic period all over the world students' academic activities are paused. Final year students are fearful about their future careers and higher educational studies. Therefore, this situation has had an impact by showing some anxiety for the final year higher education students.

In this study, there is no difference between Arts and Science stream students in their attitude towards their knowledge, mental health, stress and academic anxiety. Hence, higher education students have high positive attitude towards their knowledge, mental health, stress and academic anxiety.

The study also shows that there is no significant difference among UG, PG and Research scholars' attitudes towards their knowledge, mental health, stress and academic anxiety. As a whole, if we look into the study, we can conclude that irrespective of gender, course of study, discipline and educational institutions, the students overall show a positive attitude towards their knowledge, mental health, stress and academic anxiety as the only means of combating the COVID-19 Crisis. This reveals that so far the students are having positive attitudes towards their knowledge, mental health, stress and academic anxiety. With the help of all these statements, the investigator could extract the similar attitudes of students towards their knowledge of precautions, mental health issues, stress and academic anxiety.

Educational Implications

This study has the following educational implications;

1. There may be a need to promote awareness about the knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety to parents and other paraprofessionals.
2. There should be proper funding from the administration to meet the requirements of COVID protocols and precautions.

3. Measures should be taken to not adversely affect the state of higher education.
4. The importance of safety of students and quality of education imparted to them should rank the highest among priority for meeting the needs of higher education students.
5. There should be more efforts to educate the students by having the recovered persons share their experiences with others about treatments and quarantine.
6. To educate the population that they need not avoid the recovered persons and their families and to ensure that every recovering person follow the treatment protocol.
7. Make students aware of prevention protocols of the pandemic through the help of social media.

Conclusion

For stress and academic anxiety to be maintained during the pandemic, it is essential that teachers, parents and other paraprofessionals maintain a positive attitude towards their knowledge of COVID-19 precautions, mental health issues, stress and academic anxiety. With the changing guidelines of the governments and the dynamic of inclusion of academic support, bringing students to a greater knowledge of the virus, maintenance of mental health, controlling stress and academic anxiety, then students can come back to a normalcy of their future. At this time of crisis, to overcome the challenges in keeping the education continuous and unaffected in this disastrous pandemic, there has to be a system where there is togetherness between the students and teachers without actually being face-to-face.

References

- Ahmed, A. (2020). Synchronizing Pedagogy and Technology in Post COVID Scenario. *International Journal of Creative Research Thoughts*, 8(6), 243-246.
- American Council of Education (ACE). (2020). *Mental Health, Higher Education and COVID-19. Strategies for Leaders to Support Campus Well-Being*. Retrieved from <https://www.acenet.edu/Documents/Mental-Health-Higher-Education-Covid-19.pdf>
- Azeem, M. A. (2018). Study of Academic Anxiety and Academic Achievement Among Secondary School Students. *International Journal of Research in Social Sciences*, 8(3), 147–161.
- Butler, G. (1993). Definitions of stress. *Occasional Paper (Royal College of General Practitioners)*, (61), 1–5.
- Duraku, Z. L., & 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*. (May).
- Grigg, M., & Saxena, S. (2004). Promoting mental health nursing research in low and middle-income countries. *International Nursing Review*, 51(4), 194–195.
<https://doi.org/10.1111/j.1466-7657.2004.00268.x>

- Liang, L., Ren, H., Cao, R., Hu, Y., Qin, Z., Li, C., & Mei, S. (2020). The Effect of COVID-19 on Youth Mental Health. *Psychiatric Quarterly*, (1163). <https://doi.org/10.1007/s11126-020-09744-3>
- Mental Health Foundation. (2016). *Fundamental Facts About Mental Health 2016*. Retrieved from <https://www.mentalhealth.org.uk/sites/default/files/fundamental-facts-about-mental-health-2016.pdf>
- Roy, D., Tripathy, S., Kumar, S., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental health care need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 51(1), 2020. <https://doi.org/10.1016/j.ajp.2020.102083>
- Zhang, Y., & Ma, Z. F. (2020). Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: A cross-sectional study. *International Journal of Environmental Research and Public Health*, 17(7). <https://doi.org/10.3390/ijerph17072381>

About the author

Dr. P. Janardhana Kumar Reddy holds the degrees M.A., (Soc), M.Ed., Ph.D. (Edn). He is working as Associate Professor in the Department of Education, Bharathiar University, Coimbatore, Tamilnadu. His areas of interest are ICT in Education, Educational Sociology, Educational psychology, Teacher Education, Defense Education, Tribal Education and Pedagogy of Social Sciences.