

Academic Stress of University Students during COVID -19 Pandemic



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ABSTRACT

Academic stress is defined as the responses of students' body to academic-related demands that exceed adaptive capabilities of students. Some amount of academic stress is common among all kinds of students. The COVID -19 which was started in China has led to the lock down in India in March 2020. Since then, almost all the educational institutions in the country has shifted to online teaching. Although the adoption of distance Offline Learning is key to ensure the continuity of education, students are, on average, likely to experience a Offline Learning loss during the lockdown. The present study intends to measure the level of academic stress that the University degree students had in the pandemic situation. The study adopted a modified version of the 'Perception of Academic Stress Scale' (PASS) developed by Dalia Bedewy and Adel Gabriel. The Factor Analysis condensed the thirty six variables in to three factors namely Normal Academic Stress, Offline Learning Loss and Digital/Technical issues. The study revealed that Perceived Academic Stress level is high among male students compared with female students. The male students are highly stressed about getting a job in future. But the female students' stress level is high with University exam related matters. The online classes causes some health issues like eye pain, back pain, head ache etc., to the female students. On an overall the students always prefer to have offline classes over online classes.



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INTRODUCTION

It is known to everyone that stress is an important problem in the life all human beings. It is not a matter that how powerful, wealthy, attractive or happy people might be, stress would be present there. Stress may take different forms. It depends on the particular situation in which a human being is. Stress can happen when one is attending an interview, writing a public examination, an automobile accident, waiting for a long time in a queue etc. The term stress referred as a kind of adverse emotional, behavioural, intellectual and a functional progression that happens as an individual tries to manage or control with stressors. The term stressors denoted as the conditions that disturb or threaten to disturb a person's day do day activities. Simply saying, the stress which is faced by the students due to factors related with academics is the academic stress. Academic stress among university students is an important area to be analysed especially in the COVID -19 situation. Almost all the educational institutions in the world has shifted to online teaching and cancelled the direct class teaching since March 2020. The COVID -19 has affected almost all walks of life and all people in the world. At the end of April 2020, educational institutions shut down in 186 countries, affecting approximately 74% of total enrolled learners on the planet (UNESCO)⁶. Academic workload, financial pressures, lack of social interactions, lack of time management, lack of digital gadgets etc, increases the academic stress level of the university undergraduate students. The university students' health and academic performance may be negatively affected because of higher degree of stress. The students have lost the chance to attend the direct classes in colleges since March 2020, due to the lock down. Already the students might have some level of academic stress. The lockdown problems such as online classes, lack of digital gadgets, financial problems of family especially due to the lock down etc, were added to the stress level of students. Academic stress among students has become a topic of interest in many countries.

Yumba. W (2008) examined the perceptions of various sources of academic stress among the undergraduate students. The study revealed that the academic sources of stress which are initiated through course overloads and academic evaluation were more stressful



among the students. Eleni Andreou et. al (2011) tried to translate the Perceived Stress Scale and to assess its psychometric properties in a sample of general Greek population. The study exhibited satisfactory psychometric properties and their use for research. Dalia Bedewy & Adel Gabriele (2015) examined the perceptions of academic stress among university students, by developing an 18 item scale. The Global survey conducted by the International Association of Universities (2020), revealed that all higher education institution around the world and their activities were affected by the COVID -19 crisis. The responses shows that the risk of COVID -19 to increase inequality among higher education institutions among the globe. Vincenza Capone et al (2020) assessed the mental well-being of university students during the COVID -19 pandemic, among the Italian university students. The study revealed that the mental well-being of students are in line with normal values of Italian young adults. Further the stress level are not significantly higher than before the COVID -19 outbreak.

The present study tries to analyse the academic stress perceived by the University undergraduate students, in the light of COVID -19 pandemic. It also tries to assess the gender differences, place of domicile differences and affiliating institutional differences if any in the academic stress. The respondents of the study are university students who are pursuing undergraduate Commerce degree. The geographical area of the study is limited to the institutions affiliated to Kannur University in Kerala state.

RESEARCH METHODOLOGY

For analysing the academics stress a modified version of Perception of Academic Stress Scale (PASS) developed by Dalia Bedway and Adel Gabriel is used. Along with this some variables specifically related with COVID -19 situation were also used. The present study is designed as a descriptive one based on both primary and secondary data. The primary data has been collected with the help of structured pre-tested questionnaire. The questionnaire has been prepared in google form and distributed among the students. The respondents were selected by adopting Multi-stage random sampling technique. In the first stage, institutions affiliated to Kannur University were identified. A total of 23 Government institutions and 50 self-financing institutions affiliated to Kannur University offers Commerce degree course. Five Government institutions and five self-financing institutions were selected randomly from the list by adopting lottery method. In the next stage google form was distributed in the whatsapp group of students in concerned institutions. The first 51 responses from each of the institutions constituting a total of 510 responses were selected. The Cronbach's Alpha for the scaled statements was found to be 0.902 which is higher than the standard Cronbach's Alpha of 0.7.



Hence it is proved that internal consistency of the scale as a whole is high and the questionnaire can be considered reliable.

RESEARCH FINDINGS & DISCUSSION

FACTOR ANALYSIS OF ACADEMIC STRESS

The study tries to analyse the academic stress perceived by the University undergraduate students, in the light of COVID -19 pandemic. The objective was fulfilled by the use of a factor analysis. This analysis was used to condense the thirty six variables of academic stress in to a smaller number of basic components, which include some connected variables. Here factor analysis reduced the thirty six variables in to three factors corresponding to Normal Academic Stress, Offline Learning Loss and Digital/Technical Issues. Table I shows the result of the factor analysis. From a principal component factor analysis perspective, the first three eigen values (9.093, 3.960, 2.000) of dispersion matrix of 36 variables are taken, which suggest a factor solution with three factors as in Table 1. The factor loadings are estimated by principal component factor analysis method.

In case of first factor, the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th and 18th variables have heavy loadings with an eigen value of 9.093 which explains 48 percent of variance. This factor is labelled as Normal Academic Stress. In factor 2, variables the 19th, 20th, 21st, 22nd, 23rd, 24th, 25th and 26th variables have high loadings with a variance of 14 percent in contrast to all other variables. This factor is labelled as Offline Learning Loss. In factor 3, variables 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th and 36th have close relationship with each other with a variance of 10 percent in contrast to all other variables. This factor is labelled as Digital/Technical Issues. The total variance explained by the three factors together is approximately 72 percent.

Table 1: Estimated Factor Loadings- Academic Stress

Variables	Various aspects of Academic Stress	Estimated Factor Loadings			Communi- nality
		Factor 1	Factor 2	Factor 3	
Variable 1	Am confident that I will be a successful student	.408	-.637	.307	.666
Variable 2	Am confident that I will be successful in my future career	.442	-.638	.259	.669
Variable 3	I can make academic decisions easily	.389	-.540	.167	.471



Variable 4	The time allocated to classes and academic work is enough	.492	-.355	.073	.373
Variable 5	I have enough time to relax after academic work	.426	-.394	-.058	.340
Variable 6	My teachers are critical of my academic performance	.462	-.186	.228	.300
Variable 7	I fear failing papers this year	.373	.360	.053	.272
Variable 8	I think that my worry about examinations is weakness of my own character	.442	.329	.150	.326
Variable 9	My Teachers have unrealistic expectations of me	.521	.085	.329	.387
Variable 10	The size of the curriculum (workload) is excessive	.482	.270	.134	.323
Variable 11	I believe that the amount of work assignment is too much	.464	.368	.008	.352
Variable 12	Am unable to catch up if getting behind the work	.416	.401	.226	.385
Variable 13	The unrealistic expectations of my parents stresses me out	.540	.129	.365	.442
Variable 14	Competition with my peers for grades/marks is quite intense	.471	.361	.221	.401
Variable 15	The University examination questions are usually difficult	.656	.059	.014	.434
Variable 16	Examination time is short to complete the answers	.434	.170	.209	.261
Variable 17	Examination times are very stressful to me	.557	.097	.126	.336
Variable 18	Even if I pass my exams, am worried about getting a job	.549	.063	.138	.324
Variable 19	I believe COVID -19 lead to a Offline Learning loss	-.237	.742	-.127	.623
Variable 20	I spend less time for online classes compared with off-line classes	-.196	.624	.031	.429
Variable 21	I use the possibility for bunking/cutting/avoiding online classes	.302	.358	.039	.221
Variable 22	I feel stressed during online classes	-.012	.776	-.195	.641

Variable 23	Online classes causes some health issues like eye pain, back pain etc	-.153	.774	-.148	.645
Variable 24	There is less motivation for online classes	-.046	.770	-.176	.626
Variable 25	Lack of meeting with friends negatively affect my Offline Learning	-.118	.728	-.085	.551
Variable 26	I find it stressful to adapt to online Offline Learning	-.090	.788	-.136	.647
Variable 27	I do not have sufficient electronic gadgets to access online classes	.195	.002	.475	.264
Variable 28	There is high data/internet charge	.014	.040	.588	.347
Variable 29	Low network coverage in my area	-.136	.118	.527	.311
Variable 30	Frequent breaking in online classes	-.079	.226	.551	.360
Variable 31	Lack of digital skill of teachers	-.076	.096	.428	.198
Variable 32	Lack of recorded classes	-.083	.174	.483	.270
Variable 33	Lack of interaction with teacher	-.137	-.074	.597	.381
Variable 34	Financial problems of family negatively affect my online Offline Learning	.276	-.102	.471	.308
Variable 35	Online classes creates difficulty in understanding problem papers	-.145	-.133	.778	
Variable 36	I feel offline classes are better than online classes	-.126	-.303	.647	
Eigen value		9.093	3.960	2.000	
Percentage variation		48	14	10	72% (Total)

Source: Survey Data

ACADEMIC STRESS & GENDER

While assessing the academic stress it is imperative to know whether any gender difference exists in the academic stress of students. For checking this an Independent sample t-test was carried out. It can be observed from Table II that, “Normal Academic Stress”, “Offline Learning Loss” and “Digital Issues” is high among the male students as they got highest mean score in the case of all three variables. The result of t-test revealed that significant difference exist between the stress levels of male and female students with regard to “Offline Learning Loss” as it got a P-value less than 0.05. At the same time no significant difference exist between the stress levels of male and female students with regard to other factors such as, “Normal



Academic Stress” and “Digital/Technical Issues” as they got a P-value of more than 0.05. On an overall it can be understood that, some difference exists between the Academic stress level of male and female students and the stress level is high among the male students.

Table 2: Gender & Normal Academic Stress – Result of Independent sample t-test

Variable	Male		Female		t value	P Value
	Mean	Std. Deviation	Mean	Std. Deviation		
Normal Academic Stress	3.2091	0.4993	3.1619	0.5393	0.933	0.351
Offline Learning Loss	3.6529	1.0389	3.3934	1.0618	2.564	0.011
Digital/Technical Issues	3.2573	0.7605	3.1190	0.8283	1.785	0.075

Source: Survey Data

ACADEMIC STRESS & TYPE OF INSTITUTION

Data has been collected for the study from the students of various institutions affiliated to university such as, Government/Aided Institution and Self-financing Institution. It is equally important to know whether any difference exists in the academic stress of students in different types of institutions. For testing this Independent sample t-test was conducted. It can be interpreted from Table III that, “Normal Academic Stress”, “Offline Learning Loss” and “Digital/Technical Issues” is high among the Self-financing institution students as they got highest mean score in the case of all three variables. The test statistic shows that no significant difference exist between students in various institutions and their stress levels, with regard to all the three factors viz., “Normal Academic Stress”, “Offline Learning Loss” and “Digital/Technical Issues” as they got a P-value of more than 0.05. So it can be said that the stress level is high among the students of self-financing institutions as compared to Government/Aided Institution students. But the difference found is not statistically significant.

Table 3: Type of institution & Academic Stress – Result of Independent sample t-test

Variable	Government and Aided Institution		Self-Financing Institution		t value	P Value
	Mean	Std. Deviation	Mean	Std. Deviation		
Normal Academic Stress	3.1738	0.5263	3.2870	0.5787	-.735	0.463
Offline Learning Loss	3.4689	1.0557	3.6563	1.2860	-.604	0.546
Digital/Technical Issues	3.1604	0.8082	3.2083	0.9150	-.202	0.840

Source: Survey Data

ACADEMIC STRESS & PLACE OF DOMICILE

While assessing the academic stress it is also important to know whether any difference exists in the academic stress of students residing in Rural and Urban areas. For checking this an Independent sample t-test was carried out. It can be observed from Table IV that, “Normal Academic Stress”, “Offline Offline Learning Loss” and “Digital/Technical Issues” is high among the students residing in rural areas as they got highest mean score in the case of all three factors. The test statistic shows that no significant difference exist between the stress level of students residing in Rural and Urban areas, with regard to all the three factors viz., “Normal Academic Stress”, “Offline Offline Learning Loss” and “Digital/Technical Issues” as they got a P-value of more than 0.05. So it can be said that the stress level is high among the students residing in rural areas as compared to students residing in urban areas. But the difference found is not statistically significant.

Table 4: Place of Domicile & Academic Stress – Result of Independent sample t-test

Variable	Rural		Urban		t value	P Value
	Mean	Std. Deviation	Mean	Std. Deviation		
Normal Academic Stress	3.1888	0.5209	3.1278	0.5518	1.048	.295
Offline Learning Loss	3.5546	1.0527	3.4527	1.0926	-.871	.384
Digital/Technical Issues	3.1720	0.8200	3.1204	0.7708	.577	.564

Source: Survey Data



CONCLUSION

The present study analysed the academic stress among the under graduate commerce students of Kannur university. The reliability analysis revealed that the questionnaire is reliable as the Cronbach's Alpha for the scaled statements was found to be 0.902. Factor Analysis was used to condense the thirty six variables of academic stress in to three factors corresponding to *Normal Academic Stress, Offline Learning Loss and Digital/Technical Issues*. The male students are highly stressed about getting a job in future. But the female students' stress level is high with University exam related matters. The online classes causes some health issues like eye pain, back pain, head ache etc., to the female students. Both students have stress with regard to difficulty in understanding problem papers through online. The result of independent sample t-test revealed that some difference exists between the Academic stress level of male and female students and the stress level is high among the male students. As regards the academic stress and type of institution it is revealed that the stress level is high among the students of self-financing institutions as compared to Government/Aided Institution students. But the difference found is not statistically significant. The level of stress has some kind of relationship with the gender and type of institution of students. As regards the Academic stress and place of domicile the stress level is high among the students residing in rural areas as compared to students residing in urban areas. But the difference found is not statistically significant. It can be concluded that some level of academic stress is existing among the students. The impact of COVID -19, has added to the level of academic stress of students through the factors such as 'Offline learning loss due to lack of offline classes' and 'Digital or Technical issues'. These problems could be solved only if the offline classes are resumed.



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