

A Study on Academic Stress and its Determinants in the Students of University level: A Case Study of different Universities of Madhya Pradesh, India.

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ABSTRACT

This study was designed to study Academic Stress and Stress determinants for University Students. The objectives of the study are to find out the stress level in high stress level group and low stress level group and its determinants by using SASS and ASDS. For collecting data, survey method was adopted. This study was completed by following the procedure of descriptive method of research. 41 questions were used for data collection. 250 students from different streams of Three Universities of Madhya Pradesh were chosen as a sample of the study. This study concluded that majority of students felt Peer related stress, Parent related Stress, Teacher related Stress, Self-related stress and University related Stress.

Keyword: - Stress, SASS- Student Academic Stress Scale, ASDS- Academic Stress Determinants Scale.

1. Introduction

The term “stress” can be defined in many ways. Generally, A layperson may define stress in terms of pressure, tension, unpleasant external forces or an emotional response.

In fact, layman definition of stress and the range of stress are very confusing and very multidimensional. Stress is an abnormality in behaviour, psychology, emotional outburst, restraint in performing day-to-day routine work or physiological changes in human being.

It's important to keep in mind that stress can have both positive and negative effects on people. This suggests that stress may be a typical, adaptive response to danger. Its purpose is to alert people to danger and get them ready to defend themselves. For instance, people are motivated to cope with or avoid things they fear because they pose genuine hazards. An unexpected physical state, such as extreme heat or cold, disease, a lack of oxygen, or exposure to bright light, can put someone under stress. An individual's potential for adaptation can be severely taxed by prolonged periods of inactivity, mountain climbing, or continuous immersion in water.

Academic stress is defined as the anxiety and tension associated with college and education. Pursuing a degree and one's education can often come with a lot of pressure. Studying, exams, labs, and quizzes are all required.

The pressure to finish all the work, manage the time, and fit in extracurricular activities causes stress. University students who are frequently living away from home for the first-time experience academic stress particularly severely.

Teachers anticipate on-time completion of assignments. Students might misjudge how long it takes to finish reading and writing assignments, print out copies of their work, and turn in assignments.

Stress and its effects, including anxiety, depression, and burnout, have long been recognized as widespread issues affecting people in a variety of professions and activities.

There has been extensive research on academic stress among students, and stressors such as an excessive number of assignments, competition with other students, failures, and poor relationships with other students or lecturers have been documented.

1.1 Types of Academic Stress: Since everyone has experienced stress at some point, it is a common component of a student's life. The children can focus more intently on one task when they are under a little stress. However, as the workload grows, so does the stress. A student can experience two different sorts of stress: positive and negative stress.

The effects of academic stress on students have been well documented in East Asian nations, where it is known as "examination hell" (Hill, 1996).

1.2 Causes of Academic Stress Following are the causes of Academic Stress: -

Academic Performance: Academic performance includes tests and written assignments, both of which can dramatically increase University students' academic stress levels. University students typically feel pressure from their parents, peers, and themselves to perform well and pass their exams with favourable results.

Self-Imposed Expectations: Academic stress can also be greatly influenced by self-imposed standards for achievement. Most perfectionists attempt to take on too much at once and have very high expectations for themselves.

Parents: Parents' expectations put stress on students at both levels.

Peers and Siblings: Most adolescents also experience pressure from their siblings and peers. Peers typically have an impact on one another.

Tuitions and Coaching Classes: Tuition and coaching classes are a big contributor to the academic stress that students experience.

Workload: The amount of work students is given is a significant contributor to their stress.

University: The most common, treatable cause of academic failure in Indian University is stress connected to education.

Teacher: University teachers are another factor contributing to their academic stress.

Internal and External Factors: Academic stress is well known to be influenced by both internal and external factors.

Statement of the Problem: Academic Stress amongst University Students and Its determinants.

2. Research Methodology

The population of the current study consisted of all university students in the age range of 18 to 22 from the districts of Indore, Bhopal, and Ujjain in the state of Madhya Pradesh. followed by method, population and sample. Further in this chapter, description of tools used, the methods of data collection, administration and scoring and the frame for analysis are discussed.

This study was descriptive in nature and survey method was used. The following procedure was adopted for the study.

2.1 Population

All the University students of Indore, Bhopal and Ujjain districts of Madhya Pradesh State, of the age group of 18-22 years constituted the population of the present study.

2.2 Sample

The majority of the educational phenomenon is made up of numerous units. But it is not feasible to contact each and every element of the population. The investigator had to contact some individuals only who could

represent the whole population. A sample is a portion of the population that is considered to be representative. Sampling is the process by which relatively small number of individuals is selected in order to find out something about the entire population from which it was selected. In the present study, (450) University students constituted the sample for investigation on the basis of simple random sampling. The students included in the sample were taken from three streams i.e., Engineering, Pharmacy and Science. Both boys and girls were selected equally from each stream

i.e., (150) from Engineering stream, (150) from Pharmacy stream and (150) from science stream. Similarly equal number of students were selected, were drawn from both types of universities.

i.e., Government Universities (N=225) and Private Universities (N = 225). The students included in the sample range in the age from 18 to 22 years with the mean age of 20 years. A brief profile of respondents is shown in Table 1.

All the selected students were administered with Students Academic Stress Scale (SASS), Academic Stress Determinants Scale (ASDS), and Academic Stress Consequences Scale (ASCS). To meet out the objectives of the study the selected subjects were classified into high and low academic stress groups. For this, scores of all three dimensions i.e., cognitive reaction, affective reaction, and behavioral reaction of SASS were combined and obtained the total score of academic stress. The subjects having highest 27% score on SASS constituted the High Academic Stress Group. The high academic stress group consisted of 120 subjects and subjects having lowest 27% score on SASS constituted the low academic stress group. The Low Academic Stress Group consisted of 120 subjects. The study was carried out through Descriptive Survey Method on a sample of 250 University students.

2.3 Tools Used

Selection of the suitable tools or measures is of vital importance for the collection of data in any research work. Different tools are used for collection of data and for various kinds of information. One may use one or more of the tools according to the purpose of the study. For the present study, the investigator used the following tools.

2.3.1 Students' Academic Stress Scale (SASS)

For the measurement of academic stress, the investigator adapted A.O. Busari's Students Academic Stress Scale (SASS). SASS is a valid measure and it consists of 37 items. The scale measures three aspects/reactions i.e., cognitive reaction, affective reaction and behavioral reaction towards different types of academic stressors.

Cognitive reaction to stressors sub-scale of the instrument consists of 9 items, and total score can range from 9 to 45.

The second sub-scale of the instrument is affective reaction. This sub-scale consists of 11 items and total scores can range from 11 to 55.

The behavioral reaction scale is the third sub-scale of the SASS. Since there are 17 items in this sub-scale, total scores can range from 17 to 85.

Responses are instructed to rate each item by checking out one of the five respondents, namely Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. For scoring, a numerical value of 5 to 1 is attached to each category of responses. Student Academic Stress Scale is a reliable measure of academic stress. Cronbach's alpha coefficient for each scale was found 0.92 for cognitive reaction, 0.84 for affective reaction and 0.84 for behavioral reaction.

Description of sub scales (SASS)

Reaction to Stressors: Reaction to stressors refers to the state of physical or psychological arousal that usually results from perception of stress experience.

Cognitive Reaction Subscale Reaction to stressors refers to the state of physical or psychological arousal that usually results from perception of stress experience.

Affective Reaction Subscale: Affective reaction includes fear, anxiety, worry, tension, anger, guilt and grief. Emotionally students may experience increased fear, anxiety, and change in level of sensitivity (more or less) and increased aggression, greed, anger and irritability.

Behavioral Reaction Subscale: Behavioral reaction subscale measure's reaction to stressful situations such as – crying, drug use, smoking and irritability. Behaviorally students may become more aggressive or more withdrawn. Some students may regress in their behavior. Also, change in sleeping and eating patterns may occur.

2.3.2 Academic Stress Determinants Scale (ASDS)

Academic Stress Determinants Scale (ASDS) has been developed by the investigator. Academic Stress Determinants Scale consists of 50 items and five sub-scales. Each sub-scale consists of 10 items. This scale is used to assess five types of academic stressors/determinants i.e., self-related stressor, parent-related stressor, peer-related stressor, teacher-related stressor and University-related stressor of academic stress. The possible range of score on each dimension is 10 to 50.

Initially a total of 75 items were constructed to assess the academic stress determinants.

While administering the test subjects are asked to read the statements carefully and choose any one option which is most appropriate according to them from the five options given after each statement, namely Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. A balance of positive and negative worded items was created. For scoring of positive items, a numerical value of 5 to 1 is attached to each category of responses. The negatively phrased statements are scored in the reverse. ASDS is a valid and reliable measure. The internal consistency of the test determined by computing split-half reliability for self-related stressor, parent-related stressor, peer-related stressor, teacher-related stressor and University-related stressor sub-scales are 0.90, 0.79, 0.71, 0.73 and 0.86 respectively. The scale was validated against the criterion of content validity. The experts agreed 75 percent with the investigator on the assignment of scale items.

2.3.4 Description of Academic Stress Determinants Subscales (ASDS)

Self-related Stressor Subscale: This subscale measures students' self-imposed causes of their stress.

Parent-related Stressor Subscale: This subscale measures students' parent-related stressors.

Peer-related Stressor Subscale: This subscale measures the students' peer-related causes of their stress.

Teacher-related Stressor Subscale: Teacher-related stressor subscale measures students' teachers-related stressors, which cause stress among students.

University -related Stressor Subscale: University related stressor subscale measures students' University-related causes of their stress.

Change in level of sensitivity (more or less) and increased aggression, greed, anger and irritability.

Behavioral Reaction Subscale: Behavioral reaction subscale measures reaction to stressful situations such as – crying, drug use, smoking and irritability. Behaviorally students may become more aggressive or more withdrawn. Some students may regress in their behavior. Also, change in sleeping and eating patterns may occur.

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3. Administration and Scoring

All scales were administered in group setting. The group testing sessions were conducted in classroom settings with adequate facilities for ventilation and proper sitting arrangement. Student Academic Stress Scale (SASS) consists of 37 positive statements and scored for 3 variables namely Cognitive Reaction, Affective Reaction and Behavioral Reaction. The scoring categories are 'Strongly Agree', 'Agree', 'Undecided', Disagree, and Strongly Disagree and these five categories of responses were scored by assigning the score of 5, 4, 3, 2 and 1 respectively.

Academic Stress Determinants Scale (ASDS) consists of total 50 items and scored for 5 variables (10 items each) namely Self-related Stressor, Parent-related Stressor, Peer-related Stressor, Teacher-related Stressor and University-related Stressor. This scale was also developed on five points and scoring categories are 'Strongly Agree', 'Agree', 'Undecided', 'Disagree', and 'Strongly Disagree' and these categories of responses were scored by assigning the scores of 5, 4, 3, 2 and 1 respectively, for the scoring of positive statements and negative items were scored by assigning the scores of 1, 2, 3, 4, and 5 respectively.

4. Statistical Analysis

The collected data has been checked and edited on the ground of its accuracy, consistency and completeness. Analysis has been carried out with the help of statistical tools relevant to the study. For the purpose of data analysis, statistical tools like mean, SD and t-test, were applied.

5. Result and Discussion

To examine the stressors of academic stress among university students Academic Stress Determinants Scale was used by the investigator. This scale consists 50 items and five sub-scales i.e., Self-related stressor, Parent-related stressor, Peer-related stressor, Teacher-related stressor and University-related stressor. The subjects scoring below 27% (N=120) constituted the Low Academic Stress Group and the subjects scoring above 27% (N=120) constituted the High Academic Stress Groups. In order to achieve the major objectives of the study, the obtained data was subjected to various statistical analyses. The data was analyzed by using t-test.

t-test: A t-test is a procedure used for comparing sample means to see if there is sufficient evidence to infer that means of the corresponding population distribution also differ. An independent samples t-test, in further detail, selects a sample from two populations. The two samples are measured on some variables of interest. A t-test will determine if the means of the two sample distributions differ statistically from each other.

To examine the differences in the determinants/stressors of academic stress i.e., self-related stressor, parent-related stressor, peer-related stressor, teacher related stressor and University-related stressor, the total sample of (N=450) University students was divided in two groups viz. Low Academic Stress Group (N=225) and High Academic Stress Group (N=225). The means, standard-deviations and t-ratios of mean differences have been reported in table 4.1.1 to 4.1.6

Table-3.1: Respondent Profile for N = 450

Gender	Districts			University		Streams		
	Indore	Bhopal	Ujjain	Govt.	Private	Engineering	Pharmacy	Science
Male	77	76	72	113	113	77	76	72
Female	77	76	72	112	112	77	76	72
Total	154	152	144	225	225	154	152	144

Age range = 18 years to 22 years

Mean age = 20 years

TABLE 3.2 Description of Variables Used in the Study

S.N.	Variables	Description
1.	Cognitive Reaction	A Measure of Academic Stress
2.	Affective Reaction	A Measure of Academic Stress
3.	Behavioral Reaction	A Measure of Academic Stress
4.	Self-related Stressor	A Measure of Academic Stress Determinants
5.	Parent-related Stressor	A Measure of Academic Stress Determinants
6.	Peer-related Stressor	A Measure of Academic Stress Determinants
7.	Teacher-related Stressor	A Measure of Academic Stress Determinants
8.	University-related Stressor	A Measure of Academic Stress Determinants

Group Differences in Experienced Stressors

Comparison of Low and High Academic Stress Groups on Various Stressors (t-test)

The data was analyzed to study differences in academic stress determinants/stressors viz. self-related stressor, parent-related stressor, peer-related stressor, teacher-related stressor and University-related stressor among subjects falling in low and high academic stress groups. For this, the mean scores of low academic stress group subjects were compared with the mean scores of high academic stress group subjects on the above-mentioned variables. For this, t-ratios were computed.

Table-4.1.1 Means, SDs and t-ratios of Low and High Academic Stress Groups on Various Stressors

Variables	Low Academic Stress Group (N=225)		High Academic Stress Group (N=225)		t-ratios	Level of Significance
	Mean	SD	Mean	SD		
Self-related Stressor	30.450	5.167	37.77	4.975	11.187	0.01
Parent-related Stressor	28.444	4.689	33.530	4.886	8.357	0.01
Peer-related Stressor	31.100	5.284	37.767	4.738	10.290	0.01

Stressor						
Teacher-related	28.283	5.370	33.325	6.314	6.663	0.01
Stressor						
University-related	27.275	6.410	32.417	6.644	6.101	0.01
Stressor						

Table 4.1.2 Means, SDs and t-ratio of Low and High Academic Stress Groups on Self-related

Groups	Mean	SD	t-ratio	Level of Significance
Low Academic Stress Group (N=120)	30.450	5.167	11.187	0.01
High Academic Stress Group (N=120)	37.775	4.975		

A closer look at the aforementioned data indicates that the mean scores of two comparable groups on the Academic Stress Determinants Scale's self-related stressor measure were 30.450 and 37.775 with their respective standard-deviations of 5.167 and 4.975. The calculated t-ratio equals to 11.187 significant at 0.01 level of significance. The obtained results point that two comparable groups differ significantly on the self-related stressor, a sub-scale of Academic Stress Determinants Scale. Further, it reveals that high academic stress groups students are more stressed than their counterpart low academic stress group students because of different self-related stressors such as they feel that their learning level is less good than their classmates, watching too much T.V., examination pressure, pressure of extra coaching classes, parental expectations, language problems and pressure for perfection in all the subjects are some of the major causes of their academic stress. These findings also supported by the previous studies conducted by (Kadaptti and Khadi 2006), and (Tarager 2009).

Table 4.1.3 Means, SDs and t-ratio of Low and High Academic Stress Groups on Parents-related Stressor

Groups	Mean	SD	t-ratio	Level of Significance
Low Academic Stress Group (N=120)	28.444	4.689	8.357	0.01
High Academic Stress Group (N=120)	33.53	4.886		

Perusal of above table reveals that mean scores of low and high academic stress groups of university students on parent-related stressor of Academic Stress Determinants Scale were 28.444 and 33.530 with the respective standard deviations of 4.689 and 4.886. The t-ratio equals to be 8.357 which is significant at 0.01 level of significance it points that subjects belonging to the two comparable groups differ significantly on the

measure of parent-related stressor. Further the obtained results reveal that students belonging to high academic stress group are more stressed as compared to their counterpart low academic stress group students. They are stressed because of their parent's strict attitude, parental pressure for best in all the subjects, parents' interference in the studies, and lack of parental guidance in the studies. Largely, outcomes of the analysis also support the results of the studies by (Vamadvappa 1999) and (Kumar *et.al.*2011).

Table 4.1.4: Means, SDs and t-ratio of Low and High Academic Stress Groups on Peer-relatedStressor

Groups	Mean	SD	t-ratio	Level of Significance
Low Academic Stress Group(N=120)	31.100	5.284	10.290	0.01
High Academic Stress Group (N=120)	37.767	4.738		

It can be noted from the above table that mean scores of low and high academic stresses groups of university students on peer-related stressor of Academic Stress Determinants Scale were 31.100 and 37.767 with the respective standard deviations of 5.284 and 4.738. The obtained t-ratio equals to be 10.290 which is significant at 0.01 level of significance. It points that subjects belonging to the two comparable groups differ significantly on the measure of peer-related stressor of Academic Stress Determinants Scale. Further the obtained findings reveal that high academic stress group students experienced more stress than their counterpart low academic stress group students. High academic stress group subjects feel more stress due to various factors, e.g., adjustment problems with classmates, feel nervousness at the time of presentation before peers, desire to outperform peers, due to strife and veiled struggle among classmates, comparison of study hours with that of peers and comparison of academic result with the peer etc. The results show similarity with the findings of the studies conducted by (Hong Li *et al.*2005) and Morris (1990).

Table 4.1.5 Means, SDs and t-ratio of Low and High Academic Stress Groups on Teacher-related Stressor

Groups	Mean	SD	t-ratio	Level of Significance
Low Academic Stress Group (N=120)	28.283	5.370	6.663	0.01
High AcademicStress Group (N=120)	33.325	6.314		

It can be observed from the above table that mean scores of low and high academic stress groups on teacher related stressor of Academic Stress Determinants Scale (ASDS) were 28.283 and 33.325 with respective standard deviations of 5.370 and 6.314. The obtained t-value equals to be 6.663 which is significant at 0.01 level of significance. It highlights how much subjects from the two comparable groups differ on the Academic Stress Determinants Scale's peer-related stressor scale. Further the findings reveal that the subjects falling in high academic stress group experienced more stress than their counterpart low

academic stress group subjects. Various teacher related factors such as teacher's non-friendly behavior, teachers' pressure to join their tuition, partiality by the teachers, lack of cooperation and guidance by the teachers, teachers' high expectations, teachers' teaching method or way of their teaching are the major teacher related stressors caused students' academic stress. The results support the findings of the earlier study conducted by Targar (2009).

Table 4.1.6 Means SDs and t-ratio of Low and High Academic Stress Groups on University-related Stressor

Groups	Mean	SD	t-ratio	Level of Significance
Low Academic Stress Group(N=120)	27.275	6.410	6.101	0.01
High Academic Stress Group(N=120)	32.417	6.644		

It can be observed from the above table that mean scores of two comparable groups on university-related stressor of Academic Stress Determinate Scale (ASDS) were 27.275 and 32.417 with respective standard deviations of 6.410 and 6.644. The obtained t-ratio equals to be 6.101 significant at 0.01 level of significance. It points that two comparable groups differ significantly on university-related stressor of Academic Stress Determinants Scale. Further the obtained results demonstrate that subjects belonging to high academic stress group are more stressed as compared to their counterpart low academic stress group subjects. Different University related factors e.g., continuous periods, lack of guidance and coaching facilities and other facilities like not enough good books in the University library, lot of assignments received by the different University teachers, class tests, examination pressure and non-supportive teachers are the major causes (University related stressors) responsible for academic stress among university students. The findings also back with (Kaplan et. al.'s research. 2005), Milkie and Warner (2011) that University environment caused academic stress among students. The overall findings reveal that high academic stress group subjects have scored high mean scores on all the five determinants of academic stress i.e., self-related stressor, parent-related stressor, peers-related stressor, teacher-related stressor, and University-related stressor. The obtained results hereby portray that two comparable groups i.e., low and high academic stress groups differ significantly on all the five types of determinants of academic stress.

6. Conclusion

Overall findings of the study indicated that low and high academic stress groups differ significantly on all the determinants of academic stress i.e., self-related stressor, parent-related stressor, peers-related stressor, teacher-related stressor of academic stress and it was also found that high academic stress group subjects scored significantly higher mean scores on all the determinants of academic stress as compared to low academic stress group subjects. related stressor (watching too much T.V., extra coaching classes, language problems, examination pressure) parent-related stressor (parents' high expectations, parental interference in studies, parents' strict attitude, lack of parental guidance), peer-related stressor (adjustment problems with peers, desire to outperform peers, comparison with peers), teacher-related-stressor (teachers' non-friendly behavior, teachers' pressure to join their tuition, partiality on the part of the teachers, teachers' high expectations), and University-related stressors (lack of facilities in the University, class test, examination pressure, non-supportive teachers). The findings of the study also support the findings of the earlier studies conducted by (Kadapatti and Khadi 2006); (Kumar et al. 2011); (Vamadavva 1999); Hong Li et al. (2005); Kaplan et al. (2005). It has been hypothesized that low and high academic stress group University students do not differ on academic stress determinants. According to the results of the study the above stated hypothesis has been rejected as significant difference exists between the two groups.

7. References

- Busari, A.O. (2012). Identifying difference in perception of academic stress and reaction to stressors based on gender among first year university students. *International Journal of Humanities and Social Sciences*. 2 (14), 138-145.
- Hill, B. (1996). Breaking the rules in Japanese Schools: Kosoku Ihan, academic competition, and moral education. *Anthropology & Education Quarterly*. 27, 90-110.
- Hong, Li, Lin, C.D., Bray, M.A. and Kehle, T.J. (2005). The measurement of stressful events in Chinese college students. *Psychology in the Schools*. 42 (3), 315-323.
- Kaplan, D.S., Liu, R.X. and Kaplan, B.B. (2005). School related stress in early adolescence and academic performance three years later: The conditional influence of self-expectations. *Soc. Psychol. Edu.* 8 (1), 3-17.
- Kumar, N. and Kaur, G. (2013). Stress management of senior secondary school students in relation to socio-economic status. *Educationia Confab.* 2 (1), 20-26.
- Vamadevappa, H. (1999). Correlates of academic stress and achievement of high school students, *Educational Review*. 53 (2), 21-25.

