The Influence of School Type and Self-Efficacy on Academic Stress among Higher Secondary School Students

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Abstract: In the modern world academic stress is a factor which could significantly impair the quality of learning and academic performance of a student. The purpose of the research was to understand the influence of school type and self-efficacy of students belonging to higher secondary level of education upon their academic stress, and also to understand the predictive nature of student self- efficacy on academic stress. A sample of 120 higher secondary school students of age ranging from 16-17 were considered randomly from educational institutions of Palakkad district. Kim's academic stress scale and Schmitz and Schwarzer's student's self-efficacy scale was used to measure the academic stress and self-efficacy of the sample population. Data was collected and analysed using independent sample t-test, Pearson correlation and simple linear regression. The research concludes that there exists a moderately strong relation between academic stress and self-efficacy, and there lies a significant difference of academic stress among the state and the CBSE school students. It is also revealed that school type is a much stronger predictor of academic stress than self-efficacy.
Keywords: Academic stress, self-efficacy, school type, Higher secondary students.

I. INTRODUCTION

The period of schooling is that major part of a child's life where they experience drastic changes from their simple life till then. Schooling is that major period of growth, development and proliferation within the child that moulds them in every different aspect as a human being. Even though schooling is considered as a great opportunity for the children to explore, enjoy and know the world around them, the process of schooling has also resulted into a set of serious matters that must be keenly discussed. The education system has come up with very little changes over long years of time and has been focussing upon creating similar kinds of individuals by giving importance to the academic scores they acquire over their academic lifetime. Is knowledge-seeking or securing grades more important in the academic sector has been a debatable issue over the past decades. All such discussions have led to changes in the related thoughts among people and minute steps are being visible in the present scenario. Focussing onto the conditions the students face in their school life academic stress has become a very major problem affecting a majority of the population. The factors that influence this academic stress like the social expectation and the pressure placed upon the students from their young ages and the individual differences within the individual are of major concern to be focussed.

Stress and anxiety are two important factors that directly and indirectly affect all ages of people. School students are also the ones who appear particularly at risk to this reality when compared with the different age groups of people. They are going through the period of rapid biological change, social expectations, social interactions, personal development and peer influence which altogether creates a novel situation for them to face in their early ages. School environments have a major influence on these developmental factors as school becomes the second home to the children which has a great role in moulding an individual. For many students, the period of higher secondary education is extremely stressful and could cause slight to severe issues including depression, insomnia, mood swings, general fatigue, a sudden drop in grades, temper tantrums and aggression. In the academic life of an Indian student, Higher secondary school education is one of the most significant turning points in their life. This stage plays a significant role in deciding the student's options or choices for higher education and even probably career too [12]. Gupta stated that "Academic stress is mental distress with respect to some anticipated frustration associated with academic failure or even awareness of the possibility of such failure" [7]. Grades, self-imposed need to succeed, social pressure for higher marks and studying are the main cause for academic stress [9]. The causes of academic stress can be grouped into seven categories and they are stress due to exams and test, stress due to interpersonal relation between teachers, stress due to peer relationships, stress due to time management and infrastructure, stress due to infrastructure availabilities, stress due to self-inflicted causes, stress due to parental and social related issues.

Bandura stated self-efficacy as an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments [1], [2], [3]. A person with high self-efficacy will have the confidence to control their own behaviours, motivation and social environment. Self-efficacy has a significant effect on the amount of effort a student shells out to a particular task. In the face of setbacks and failures, an individual with high self-efficacy will be comparatively more resilient and will be persevering towards their goals, while someone with relatively low self-efficacy may avoid or disengage in the task by changing the situation. The beliefs of a student on their potentials to overcome any situation can have an immense influence on their coping ability to stress too. Different studies conducted to analyse the influence of self-efficacy on academic stress concluded that people with higher self-efficacy will have low academic stress and students with low self-efficacy have higher than normal academic stress [13], [14]. Similarly, a set of various studies conducted in the private and government schools showed that pupil who is in public school have much lower academic stress than the students from private schools [11], [8], [6] and it was also noted that female students experience much higher stress than their male counterparts [10]. On the contrary, there also lies the results of a study conducted by Prabhu which concluded that the female students experience lesser academic stress than male students [11]. The same study marked a difference in academic stress between urban and rural students as the urban students were under higher academic stress than rural students due to their different standards of living and life expectations. Bartwal concluded in his study that there lies no significant relation between male and female adolescents on their academic stress levels [4] and on the other end the results from the study by Busari showed no relation on academic stress between urban and rural students [5].

II. AIM

The aim of the study is to understand the influence of school type and self-efficacy of higher secondary school students upon their academic stress and to understand the predictive nature of student self-efficacy on academic stress.

III. SCOPE AND SIGNIFICANCE OF THE STUDY

The results of the study remain quite beneficial for both students and those important ones connected with them. The study avails the understanding of those factors which could have a significant influence on stress and the coping mechanisms which would make people much more successful in their life. The research will be immensely advantageous to administrators and policymakers in their quest to reduce the stress among school students through their official work processes. Parents and teachers will be much more aware of the factors which will help in the coping of stress response in students and can focus onto activities that can be employed to develop self-efficacy in their students and make their life more fruitful by overcoming the obstacles of their life. Students are the group which have the most to gain from the research as they can incorporate the findings in their own life and put them into practice including their decision-making process.

IV. HYPOTHESES

There exists no statistically significant correlation between academic stress and self-efficacy.
There exists no statistically significant difference among academic stress of state school students and CBSE school students.
There exists no predictability between academic stress and self-efficacy.
There exists no predictability between academic stress and school type.

V. PROCEDURE

Higher secondary school students of age ranging from 16-17 were considered randomly from educational institutions of Palakkad district. Equal number of students from state and CBSE schools were considered. The academic stress scale and the student's self-efficacy scale was used to measure academic stress and self-efficacy of the sample population. Data was collected and analysed using independent sample t-test, Pearson correlation and simple linear regression to test the hypotheses.

VI. METHOD

A sample size of 120 higher secondary school students were considered for the study. In the total sample population half of them were state school students and the other half were CBSE students.
The academic stress scale was developed by Kim (1970). It consists of 40 items. The respondents answered these statements on a 5-point scale from 0 to 4 as no stress, slight stress, moderate stress, high stress and extreme stress respectively. The scoring for each respondent is done by summing up the total ratings given to all situations experienced by the respondent. The total score ranges from 0 to 160. The higher the value of the score the more the academic stress. The Academic stress scale has test-retest reliability. The test-retest correlation within an interval of 20 days has been found to be 0.82.

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The Student self-efficacy scale was developed by Schmitz and Schwarzer. It consists of 10 items. The scale answered on a 4-point response format from 1 to 4 as not at all true, hardly true, moderately true, exactly true respectively. The scores corresponding to each statement is summed up to get a student self-efficacy score. The resulting scores range from 10 to 40 with a higher score representing higher student self-efficacy. The Student self-efficacy scale maintained a good internal consistency correlation of 0.84. Good validity is also maintained

VII. RESULT & DISCUSSION

The aim of the study was to understand the influence of school type and student self-efficacy on higher secondary school student's academic stress and to understand the predictive nature of student self-efficacy on academic stress. Pearson's correlation was used to determine the relation between academic stress and self-efficacy, independent sample t-test to understand the difference of academic stress among state and CBSE school students and to understand the predictive nature of self-efficacy and school type on the academic stress, simple linear regression was performed.

TABLE I
Pearson's correlation between academic stress and self-efficacy

	Mean	Standard Deviation	1	2
1, Academic stress	85.47	30.21	-	
2, Self-Efficacy	26.83	5.103	-.588[**]	-

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

Pearson correlation analysis was used to determine the relation between academic stress and self-efficacy. Table 1 has concluded that there exists a negative relation between academic stress and student self-efficacy (r (120) =-.588[**], p =.001), such that higher self-efficacy (Mean=26.83, SD= 5.103) reported lower academic stress (Mean=85.47, SD= 30.21) and vice-versa. The correlation result can be concluded that there is a moderately strong relation between academic stress and self-efficacy. Studies conducted by Rovira and Elvira have also revealed similar results earlier [13], [14]. This is due to the fact that student's self-efficacy has a major influence on their self-confidence and this self-confidence could describe the stress response in a stress inducing situation.

TABLE II
Descriptive statistics and independent sample t-test of students adamic stress among state and cbsc school students

School type	N	M	SD	T-value	Sig.
State	60	58.67	13.197	-15.246	0.01
CBSC	60	112.27	14.022		

The table II shows the mean value of academic stress among state school students (N= 60, M= 58.67, SD= 13.197) and CBSE school students (N= 60, M= 112.27, SD= 14.022). To test the hypothesis that the school type produces no significant difference in the mean of students' academic stress, an independent sample t-test was performed. The assumption of homogeneity of variances was tested and satisfied via Levene's F test, F (118) = .230, p = .633. The independent sample t test resulted in a statistically significant effect of school type on student's academic stress, t (118) = -15.246, p= .01. Thus, the students of state and CBSE schools have a significant academic stress difference. It's shown that students who are studying in a CBSE school will have almost double the academic stress than their state school friends. Research done by Prabhu, Hussain, and Ghosh earlier have also concluded the same result [11], [8], [6].

TABLE III
Simple linear regression between academic stress with collage type and self-efficacy

Variables	R	R²	Change R²	β	F value	Sig.
X = Academic stress	0.895	0.8	0.797	0.895	232.455	0.01
Y = School Type						
X = Academic stress	0.588	0.346	0.334	-0.588	30.654	0.01
Y = Self-Efficacy						

To determine the ability to predict students' academic stress based on their school type and self-efficacy, simple linear regression was conducted. A significant regression equation was found (F (1,119) = 232.455, p=.01), with an R2 of .8 between students' academic stress and school type. Students' predicted academic stress is equal to 5.06 + 53.6 where college type is coded as 1 = State school, 2 = CBSE school. CBSE students' academic stress is 53.6 units higher than state school students. Thus, the null hypothesis can be rejected. The analysis has concluded that school type can predict academic stress upto 80% accurately.

Students, academic stress and self-efficacy found a significant regression equation (F (1,119) = 30.654, p=.01), with an R2 of .34 between students' academic stress and self-efficacy. Students' predicted academic stress is equal to 178.88 - 3.481 when self-efficacy is measured. Students' average academic stress decreased by 3.481 units for each point of self-efficacy. The analysis resulted in a 34% predictable accuracy between self-efficacy and academic stress. From the analysis it's clear that school type is a much stronger predictor of academic stress than self-efficacy.

VIII. CONCLUSION

The research concluded that there exists a moderately strong relation between academic stress and self-efficacy, and there lies a significant difference of academic stress among the state and the CBSE school students. It is also revealed that school type is a much stronger predictor of academic stress than self-efficacy.

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