

## Academic Stress and Its Influence on Academic Achievement among Early Adolescents

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### ABSTRACT

The study investigated the relationship between academic stress and its influence on academic achievement among early adolescents. A total of 110 students randomly selected from two different schools of Mysuru, Karnataka participated in the study. The instrument included Academic Stress Inventory (Lin & Chen, 2009) which measured Academic stress in seven factors, with a total of 34 questions with Likert's five-point scale. Pearson's product moment correlation was employed to find out the relationship between academic stress and academic achievement along with regression. Independent samples 't' test was employed to find out the gender differences between male and female students. Results revealed that results stress domain of academic stress was found to be significantly and negatively related to academic achievement. Results stress contributed to 4% of academic achievement. Further it was found that stress was not mediated by gender.

**Keywords:** *Academic stress, early adolescents, academic achievement.*

Early adolescence brings many opportunities to feel both joy and frustration. As a child grows and reaches puberty a psychological metamorphosis takes place. It is a growing period during which a growing person makes a transition from childhood to adulthood. Throughout the adolescent years, stressful experiences are considered to be increasing in intensity, as prominent stressors involving family dysfunction, peer demands and academic concerns (Frydenberg & Lewis 1991). The transition from elementary to secondary school represents for many students a stressful move. Lazarus defined stress as a stage of psychological arousal that results when external demands tax or exceed a person's adaptive abilities (Lazarus, 1996). Education being considered import, requires everyone who goes to school to do their best and one basic parameter of students' performances in school is academic achievement. Giving due attention to academic achievement is important because academic achievement has been one of the most important goals of the educational process (Nathanap, 2007) and it plays a

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significant role in assuring quality (Ali, Jusoff, Ali, Mokhtar, Syafena & Salamat, 2009). Asian children tend to internalize a sense of responsibility to their parents and feel driven to meet their parent's high expectations (Chow & Chu, 2007). In Asian context, academic stress arising from adolescents' self-expectations and expectations from parents and teachers are particularly salient (Ang & Huan, 2006). Academic stress in particular is the product of a combination of academic-related demands that exceed the adaptive resources available to an individual (Wilks, 2008).

Among students examination stress is the feeling of anxiety or apprehension over one's performance in the examination. School related situations- such as tests, grades, studying, self-imposed need to succeed, as well as those induced by others are the main sources of stress for high school students (Kauzma & Kennedy, 2004). Academic stress is psychological distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure. Academic stress is the major source of stress among adolescents and it may lead to low self-esteem. Stress affects students academically, socially, physically and emotionally (Centre 2010). Stress affects the productivity of the student. In the academic life, the student may tend to forget what has been taught. The students may face teacher stress, parents stress, peer stress and other stresses. Understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parents academic expectations (Lal, 2014) may also lead to stress. There are some factors in academic curriculum that causes so much stress to students. Increased class workload where there are lot of assignment to do having a very long day at work makes students more confused including workload (Rahim, et al, 2016). Students become stressed up due to the pressure to excel well (Barbara Palmer, 2005). If students are having issues understanding the language been used in the academic process it becomes a big challenges to them and they will eventually start thinking about it. The frustration leads to students being stressed up because they wonder how they will pass the course because they hardly get what the teacher say in class. The thought of finding ways to make up with lessons which they have issues, becomes a burden and stress them up beyond imagination (Essel & Owusu, 2017). Stress affecting students academically leads them to have lowered performance in school work.

This paper attempts by incorporation seven factors of stress and correlating them with the academic performance of early adolescent children of Mysuru, Karnataka. Not many studies have been done in the South Indian context. Increased and cheap availability of electronic gadgets may divert students from academics, which in turn lowers concentration. This might lead to reduced achievement, leads to stress. It is hypothesized that academic stress affect academic performance and gender may have influence.

## METHODOLOGY

### *Sample*

The sample for the study was selected from two Schools of Mysuru, Karnataka. A total of 110 students were distributed questionnaires.

### *Tools*

- 1. Personal data sheet:** The demographic data of the participants were gathered viz the information sheet, data of the students included their name (optional), age, gender, class they are studying, number of hours internet used during weekday and on weekend and academic achievement. The grades of their previous year and present year were taken from their academic record. This represents the participants' academic achievement scores.
- 2. Academic stress Inventory (Lin & Chen, 2009):** Academic stress inventory designed by Ying MingLin and FarnShing Chen (2009) was used in this study to assess the level of academic stress in the individuals forming sample. The inventory contained 34 items having seven factors of stress viz. 1) Teachers stress, 2) Results stress, 3) Tests stress, 4) Studying in group stress, 5) Peer stress, 6) Time management stress, 7) Self-inflicted stress. The brief description of them is as follows: 1. Stress from teachers: including teaching materials, teaching and exercise items. 2. Stress from results: stress from parents, including conflicts between expectations and opinions and drops in grades. 3. Stress from tests: worry about how to prepare for a test and redo the compulsory courses. 4. Studying in group stress: included exercise reports, grouping, etc. 5. Peer stress: included academic competition, peer interferences, etc. 6. Time management stress: social activities and student association, time management and choices, etc. 7. Self-inflicted stress: such as self-expectation, interests of course selection, etc.
- 3. Academic achievement:** The students' grade was obtained from the students marks report. A (81-90%) and A+ (91-100%) grades are considered as above average students, B (61-70%) and B+ (71-80%) grades are considered as average students, C (<50%) and C+ (51-60%) grades are considered as below average students.
- 4. Scoring method:** The Academic Stress Inventory was scored on 5 point scale Likert format, where 1- completely agree and 5- completely disagree.

### *Procedure*

The test was administered to the School students by asking them to fill up the relevant demographic details. Later they were requested to answer academic stress inventory. They were asked to indicate their responses in the respective sheets given to them. Once the data were collected, they were screened for completeness, scored and fed to computer. The data were analyzed using Pearson's product moment correlation and stepwise multiple regression analysis.

Table 1 presents results of product moment correlation between domains of stress and academic achievement and table 2 presents regression analysis. Table 3 presents results of independent samples 't' tests for gender differences in academic stress.

**RESULTS****Table 1 Results of product moment correlations between domains of Stress and Academic achievement**

Variable 1 Domains of Stress	Variable 2	Pearson Correlation	Significance
Teachers Stress	Academic achievement	-.080	.403
Results Stress	Academic achievement	-.218	.022
Test Stress	Academic achievement	-.176	.066
Studying in group Stress	Academic achievement	-.060	.532
Peer Stress	Academic achievement	.007	.941
Time management Stress	Academic achievement	-.075	.437
Self-inflicted Stress	Academic achievement	-.135	.161
Total Stress	Academic achievement	-.184	.055

From the above table it is clear that Stress was significantly and positively related to few of the domains of Academic achievement test. Stress was found to be significantly and negatively related to Results Stress ( $r = -.218$ ;  $p = .022$ ), where the obtained Pearson correlation were reached the significance level of criterion of .05 and below. Higher the level of stress, lower was the Academic achievement in one of the domains of stress.

**Regression Analysis****Table 2 Summary results of stepwise multiple regression or prediction of Stress and Academic achievement**

Model	Variables Entered	Variables Removed	R	R Square	Adjusted R Square
1	Results Stress	-	-.218	.048	.039
Beta coefficients					
		Step 1	Step II		
1		-.218	-		

**Regression analysis:** When all the scores of 7 domains of stress were regressed on Academic achievement scores, stepwise multiple regressions revealed that only one domain of stress was found to be the best predictors of Academic achievement. The first domain entered into the equation was Results Stress with Pearson correlation of .0218, squared R value of .048 and variance of .039. In other words, Results Stress contributed to 3.9% of the Academic achievement among the present sample. The beta values for the first predicted model were found to be -.218 at step I.

**Table 3 Mean academic stress scores of male and female students in various domains and results of independent samples 't' tests**

Domains of Stress	Gender	Mean	S.D	t-test	Sig. (2-tailed)
Teachers Stress	Male	24.89	6.08	.714	.477
	Female	24.04	6.51		
Results Stress	Male	14.72	4.41	-1.315	.191
	Female	15.87	4.75		

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Domains of Stress	Gender	Mean	S.D	t-test	Sig. (2-tailed)
Test Stress	Male	10.63	2.65	-.680	.498
	Female	11.02	3.31		
Studying in group Stress	Male	15.81	4.23	.957	.341
	Female	15.04	4.19		
Peer Stress	Male	13.14	3.52	1.105	.272
	Female	12.47	2.74		
Time management Stress	Male	8.09	2.40	-1.497	.137
	Female	8.92	3.41		
Self-inflicted Stress	Male	11.40	3.53	.352	.725
	Female	11.13	4.52		
Total Stress	Male	98.68	16.18	.061	.951
	Female	98.49	16.90		

When Independent samples 't' tests were applied to find out the significance of difference between male and female students, the obtained t values clearly revealed that gender did not have significant influence over various domains of academic stress and total academic stress scores.

## DISCUSSION

### *Major findings of the study*

1. Results stress domain of Academic stress was found to be significantly and negatively related to academic achievement.
2. Results stress contributed to 3.9% of the academic achievement.
3. Gender did not have significant influence over academic stress.

Result stress domain of academic stress was found to be significantly and negatively related to academic achievement. The students will have the worry that their academic results will not meet their parents expectations. When students were found to perceive high levels of pressure from their parents, they also reported high level of anxiety before an exam or test. Students who perceived a high level of parental pressure reported that their parents had high expectations of them which in turn increased their anxiety (Sinha, 2016). Students have conflicts with their parents regarding the academic results which cause result stress among the students. School work, family adaptations and peer relationships are the main sources of stress (Li&Yen,1998). Achievement anxiety is a fear of failure in an academic setting that arises when parents, teachers or the students own expectations exceed what student believes he/she can realistically achieve. He cites the sources of achievement anxiety –failure to satisfy ambitious or overly critical parents expectations in early childhood as well as early exposure to overachieving sibling or peer (Brogaard, 2010). From the study of Sibnath, Esbenand Jiandong (2015), it was found that about 66% of the students reported their parents pressurize them for better academic performance.

Gender did not have significant influence over academic stress. A study conducted by (Sheeba & Khan, 2015) on impact of stress, self-esteem and gender factor on students' academic achievement, the result affirmed that gender of the students showed insignificant

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relationship with stress, self-esteem and academic achievement. Contrarily, study on Stress and academic performance (Veena, & Shasthri, 2016) showed significant differences in sources of stress among boys and girl.

There are many ways to manage stress as reported by several researchers in the field. Ramirez & Beilock (2011), demonstrated that asking students to write about their thoughts and feelings about an upcoming test immediately before they take the test can lessen the negative impact of pressure on performance. Yoga through its techniques of meditation, asanas and pranayama yields a positive effect in the management in the management of stress in adolescents (Kauts & Sharma, 2009). Students need to manage time well in order to reduce stress and maintain a balance between school and other activities and time allocation for each activity (Katie Ransohoff, 2015). Parents and adolescents who have good communication between them and when parenting style is helping the adolescents to communicate their stress have improved their relationship positively (Raymond, 1989). Academic curriculum has to be framed very diligently so that the adolescents can no longer feel the stress (Huli, 2014).

Today, adolescents are highly vulnerable to stress because of rapid physical and psychological changes. Being able to manage and control stress is a useful skill, for life as a student and beyond the student life. Modern technology and other distractions add to their stress. For some students stress is manageable but for other academic stress can become so great that it interferes with their ability to focus and concentrate. This in turn can create impaired performance, further leading to greater stress. Educationists, psychologists, planners, policy makers and other subject experts should plan comprehensive strategies to manage the academic stress effectively, which would underpin the psychological stress experienced by the adolescents to become less vulnerable to such stressors.

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