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ACADEMIC STRESS AND PSYCHOLOGICAL RESILIENCE AMONG HIGHER SECONDARY SCHOOL STUDENTS: A CORRELATIONAL ANALYSIS

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Abstract

The descriptive correlational study aims to find out the relationship between academic stress and psychological resilience among higher secondary school students and the differential effect of gender on the relationship. Data were collected from a convenient sample of 162 higher secondary school students by administering valid and reliable psychometric instruments developed by the investigators. Three null hypotheses were tested by employing Pearson product-moment correlation and Fisher's z-transformation test. The results shows that there is negative but significant correlation between academic stress and psychological resilience of higher secondary school students. The observed relationship is the contribution of three of the five dimensions of psychological resilience, viz., Goal setting and planning, Self-efficacy, and Emotional regulation. Social attractiveness and Empathy are not significantly correlated to academic stress. There is significant gender difference in the degree of relationship between academic stress and psychological resilience; the variables being strongly correlated in male students than in female students. Gender was found as a significant factor discriminating higher secondary school students on the basis of the correlation of their academic stress to goalsetting and planning as well to emotional regulation.

Key words: Academic stress, Psychological resilience, Goal setting and planning, Self-efficacy, Emotional regulation, Social attractiveness, Empathy.

Introduction

The stress and strain experienced by learners in school system has become a concern of educationists, psychologists, administrators and policy makers. The concept of 'academic stress' has been variously defined by researchers and practitioners. In its simplest sense it is the pressure experienced by a learner when he fails to cope with the demands of the particular course of study, he/she is pursuing. Higher secondary school education is a very important turning point in the academic life of the individual. At this stage, the academic performance of the learner plays a crucial role in deciding about next higher stage of education, and probably career too (Rosa & Preethi, 2012). Therefore, excessive stress during this stage

could results in increased prevalence of psychological problems like anxiety, depression and nervousness, which could ultimately have negative impact on the outcome of the achievements (Waghachavare, Chavan, Dhumale & Gore, 2013). Students have to face many academic burdens such as school examination, answering questions in the class, showing progress in school subjects. Understanding what the teacher is teaching, competing with other class mates, fulfilling teachers' and parents' academic expectations (Lal, 2014). These demands may tax or exceed available resources of the students, subsequently resulting in unmanageable stress in the learner. Academic Stress is an important factor accounting for variation in academic achievement. It also contributes to major mental health hazards, problems both physical and mental stress related diseases. Stress makes a significant contribution to the prediction of subsequent student performance and act as a negative predictor of academic performance of student.

Resilience is the ability to adapt to adverse situations in a positive manner (Lussier, Derevensky, Gupta, Bergevin, & Ellenbogen, 2007). According to Tugade, Fredrickson and Barrett (2004), resilience is a cognitive capacity to avoid psychopathology despite difficulties. It includes the personal qualities that enable one to thrive in the face of adversity, and considered to be the availability of constructive coping strategies. A resilient individual can deal with stress and successfully reduce negative psychological outcomes, such as anxiety and depression (Fergus & Zimmerman, 2005), and the effects of vulnerability can be buffered by high levels of resilience (Werner & Smith, 1992). Such protective effect of resilience may have its support to overcome academic stress too, in the same manner. Individuals who are highly resilient exhibit adaptive coping skills and often convert stressors into opportunities for learning and development. Studies such as those conducted by Petrie (2010), Pietrzak et al. (2009), Roberti, Harrington and Storch (2006) etc. have reported that individuals having higher levels of resilience experiences lesser stress in different situations.

With the documentation of the health effects of prolonged stress, adolescents experiencing greater stress and the tendency for adults to disregard adolescent stress (LaRue & Herrman, 2008) there is a need for comprehensive and holistic school counselling program focused on stress education and stress reduction. Reducing academic stress and saving the youngsters from its physical and psychological consequences is a major concern of educational psychologists today. Understanding the relationship between psychological resilience and academic stress at its dimensional level is, therefore, necessary to have a full understanding of its interplay with other vital demographic factors like gender.

Objectives of the Study

The present study has the following specific objectives in view:

1) To find out the relationship between academic stress and psychological resilience of higher secondary school students.

2) To find out the differential effect of gender on the relationship between academic stress and psychological resilience of higher secondary school students.

Hypotheses of the Study

The following null hypotheses were tested for the study:

1) There is no significant relationship between academic stress and psychological resilience of higher secondary school students.

2) There is no significant relationship between academic stress and different dimensions of psychological resilience.

3) Gender has no significant differential effect on the relationship between academic stress and psychological resilience of higher secondary school students.

Methodology

The descriptive correlational study employed normative survey method. Adolescents studying in plus-one and plus-two (11^{th} and 12^{th} grades) classes of schools affiliated to Kerala Board of Public Examination constituted the population of the study. The approximate size of the population is 62,250. A convenient sample of 162 students (Male = 73; Female = 89) were selected from two Higher Secondary Schools, one from government sector and the other from aided sector, located within the revenue boundary of Thrissur district of Kerala. Data were collected by administering the Psychological Resilience Scale for Adolescents [PRSA] (Bindu & Happy, 2022) and the Academic Stress Scale for Secondary School Students [ASSS] (Bindu & Happy, 2022). The PRSA is a 50-item five-point Likert scale (Strongly agree, Agree, Not Sure, Disagree, Strongly disagree) covering five domains, viz., Goal setting and planning, Self-efficacy, Emotional regulation, Social attractiveness, and Empathy. The PRSA has a concurrent validity of 0.71 (with the Resilience Scale; Wagnild & Young, 1987) and test-retest (4-weeks interval) reliability of 0.86. The ASSS is a 40-item Likert-type scale with five response alternatives (Very often, Often, Sometimes, Rarely and Very rarely) with a coverage of five dimensions, viz., Cognitive indicators, Affective indicators, Physical indicators, Social/Interpersonal indicators, and Motivational indicators. The instrument has an external validity (teacher rating as external criterion) of 0.68 and test-retest reliability (four weeks interval) of 0.77. The data were consolidated in a spreadsheet and subjected to statistical analysis by employing Pearson product-moment correlation and Fisher's z-transformation test with the help of SPSS (version 20.0 for Windows).

Analysis and Interpretation

The relationship between academic stress and psychological resilience of the higher secondary school students were find out by estimating the coefficient of correlation between the variables for the total sample and sub-samples based on gender. The data and result of the Pearson product-moment correlation performed in this regard is given in Table 1.

Table 1: Relationship between academic stress and psychological resilience of higher secondary school students

Samples	N	r	SE_r	Sig.	r_{POP}	
					.05 level	.01 level
Total Sample	162	-0.617	0.049	.001	-0.71 - -0.52	-0.74 - -0.49
Male	73	-0.719	0.057	.001	-0.83 - -0.61	-0.87 - -0.57
Female	89	-0.507	0.079	.001	-0.66 - -0.35	-0.71 - -0.30

The coefficient of correlation between academic stress and psychological resilience for the total sample of the higher secondary school students was estimated to be -0.617 with a standard error (SEr) of 0.049. The population value of 'r' for the total group was found to lie between -0.71 and -0.52 at .05 level of confidence interval and between -0.74 and -0.49 at .01 level of confidence interval. The obtained value of 'r' is negative, but significant at 0.001 level indicating a high negative correlation between academic stress and psychological resilience of higher secondary school students. The coefficients of correlation estimated for the gender based sub-samples also follows the same trend of relationship between the variables.

Estimation of significant correlation between academic stress and psychological resilience of higher secondary school students subsequently led to component wise exploration of the association, to find out whether the observed correlation of academic stress exists to a significant extent with all the dimensions of psychological resilience. The correlation matrix showing the association between academic stress and different components of psychological resilience are given in Table 2.

Table 2: Correlation between academic stress and dimensions of psychological resilience

(N = 162)	AST.	Gsp.	Sef.	Erg.	Sat.	Emp.	Psr.
AST.	1	-.635**	-.701**	-445**	.010	.034	-617**
Gsp.		1	.489**	.290**	.088	.114	.716**
Sef.			1	.277**	.046	-.194*	.581**
Erg.				1	-.040	-.069	.492**
Sat.					1	.148	.504**
Emp.						1	.401**
Psr.							1

** .001 level; * .01 level AST. = Academic stress; Gsp. = Goal setting and planning; Sef. = Self-efficacy; Erg. = Emotional regulation; Sat. = Social attractiveness; Emp. = Empathy

The results of the intercorrelation analysis reveals that academic stress is negatively, but significantly correlated to three dimensions of psychological resilience, viz., Goal setting and planning (r = -0.635; p<.001), Self-efficacy (r = -0.701; p<.001) and Emotional regulation (r = -0.445; p<.001). The other two dimensions of psychological resilience, viz., Social attractiveness (r = 0.010; p>.05) and Empathy (r = 0.034; p>.05) are not significantly correlated with academic stress.

The differential effect of gender on the relationship between academic stress and psychological resilience of higher secondary school students was studied by comparing the coefficients of correlation estimated for male and female students by employing Fisher's z-transformation test. The data and results of analyses performed in this context is given in

Table 3.

Table 3: Comparison male and female students regarding the correlation of academic stress to psychological resilience and its dimensions

Dimension	Sub-samples	Statistical Indices				$Z_{observed}$	Sig.
		N	r	$r_{correct}$	z		
Psychological Resilience	Male	73	-.719	-.72	0.908	2.155	.05
	Female	89	-.507	-.52	0.576		
Goal setting and planning	Male	73	-.727	-.73	0.929	2.003	.05
	Female	89	-.537	-.54	0.604		
Self-efficacy	Male	73	-.779	-.78	1.045	0.615	NS
	Female	89	-.737	-.74	0.951		
Emotional regulation	Male	73	-.196	-.20	0.203	3.270	.001
	Female	89	-.620	-.60	0.693		
Social attractiveness	Male	73	-.102	-.10	0.100	1.335	NS
	Female	89	.112	.11	0.110		
Empathy	Male	73	-.172	-.17	0.172	0.912	NS
	Female	89	.296	.30	0.310		

The results of the Fisher's z-transformation tests show that there is significant gender difference in the degree of relationship between academic stress and psychological resilience of higher secondary school students ($Z_{observed}$ = 2.155; p<.05). Scrutiny of r-values estimated for the gender groups reveals that the variables are more strongly associated in male students than in female students. The results of the dimension wise analysis of the correlation between psychological resilience and academic stress shows that gender is a significant factor in the relationship of academic stress to goal setting and planning ($Z_{observed}$ = 2.003; p<.05). as well as emotional regulation ($Z_{observed}$ = 3.270; p<.001). While male students excel their gender counterparts with respect to the correlation between academic stress and goals setting and planning, the relationship between academic stress and emotional regulation dimension of psychological resilience is comparatively stronger in female students. No true difference was noticed between male and female

students with respect to the degree of association between academic stress and other dimensions of psychological resilience.

Conclusion

The results of the analysis showed that academic stress of higher secondary school students is negatively, but significantly correlated to their psychological resilience. The variables show the same trend in the relationship in gender based sub-samples too. Any increase in psychological resilience is accompanied by a corresponding decrease in the academic stress of higher secondary school students. The hypothesis formulated in this context, viz., Hypothesis-1 (there is no significant relationship between academic stress and psychological resilience of higher secondary school students) is, therefore, rejected. The estimated correlation of psychological resilience to academic stress is contributed by three of its five dimensions, viz., goal setting and planning, self-efficacy, and emotional regulation; while social attractiveness and empathy has no significant relationship with academic stress. The hypothesis formulated in this context, viz., Hypothesis-2 (there is no significant relationship between academic stress and different dimensions of psychological resilience) is, hence, partially accepted. Further, gender was found to be a significant factor that discriminate higher secondary school students on the basis of the relationship of academic stress and psychological resilience. The hypothesis formulated in this context, viz., Hypothesis-3 (gender has no significant differential effect on the relationship between academic stress and psychological resilience of higher secondary school students) is, consequently, rejected. The analysis further revealed that the observed gender difference in the correlation between the variables is contributed by two of the dimensions of psychological resilience, viz., goal setting and planning and emotional regulation. The male and female students are almost alike in the degree of relationship of academic stress to factors like self-efficacy, social attractiveness and empathy.

References

Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health, 26,* 399-419.

Lal, K. (2014). Academic stress among adolescent in relation to intelligence and demographic factors. *American International Journal of Research in Humanities, Arts and Social Sciences, 5(1),* 123-129.

LaRue, D. E., & Herrman, J. W. (2008). Adolescent stress through the eyes of high-risk teens. *Pediatric Nursing, 34(5),* 375-380.

Lussier, I., Derevensky, J. L., Gupta, R., Bergevin, T., & Ellenbogen, S. (2007). Youth gambling behaviors: An examination of the role of resilience. *Psychology of Addictive Behaviors, 21(2),* 165-173. https://doi.org/10.1037/0893-164X. 21.2. 165

Petrie, S. M. (2010). The relationship between perceived stress and resilience among adolescents with cystic fibrosis. http://minds.wisconsin.edu/handle/1793/47124

Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., & Southwick, S. M. (2009). Psychological resilience and post-deployment social support protect against traumatic stress and depressive symptoms in soldiers returning from Operations Enduring Freedom and Iraqi Freedom. *Depression and Anxiety, 26,* 745–751. doi:10.1002/da.20558

Roberti, J. W., Harrington, L. N., & Storch, E. A. (2006). Further psychometric support for the 10-item version of the Perceived Stress Scale. *Journal of College Counselling, 9,* 135 - 147

Rosa, M.C., & Preethi, C. (2012). Academic stress and emotional maturity among higher secondary school students of working and non-working mothers. *International Journal of Basic and Advanced Research, 1(3),* 40-43.

Sarita & Sonia. (2015). Academic Stress among Students: Role and Responsibilities of Parents. *International Journal of Applied Research, 1(10),* 385-388.

Tugade, M., Fredrickson, B., & Barrett, L. (2004). Psychological resilience and positive emotional granularity. *Journal of Personality, 72*, 1161-1190.

Waghachavare, V. B., Chavan, V. M., Dhumale, G. B., & Gore, A. D. (2013). A cross-sectional study of stress among junior college students in a rural area of Sangli district of Maharashtra. *Innovative Journal of Medical and Health Science, 3(6),* 294 - 297.

Wagnild, G. M. & Young, H. M. (1987). Development and Psychometric Evaluation of the Resilience Scale. *Journal of Nursing Measurement*, 1, 165-178.

Werner, E. E., & Smith, R. S. (1992). Overcoming the odds: High risk children from birth to adulthood. New York, New York: Cornell University Press.

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