

Relationship between Academic Achievement and Certain Psychosocial Variables and Gender Differences in Academic Achievement: A Study among Higher Secondary School Students

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ABSTRACT

This study aimed to examine the relationship between academic achievement and certain psychosocial variables viz., self-esteem, examination anxiety, and general stress and gender differences in the academic performance of higher secondary students. Random sampling technique has been followed for the present study. Self-esteem inventory, Kerala General Anxiety Scale, and Kerala Examination Anxiety Scale were used for the present study. The academic achievement of the students was measured through the marks obtained by the selected higher secondary students in their school examinations. The total sample consists of 150 higher secondary students which include 75 male and 75 female students. The present study revealed that there exists a substantial relationship between academic achievement and self-esteem. Academic achievement is not related to general anxiety and examination anxiety. There exist gender differences in self-esteem and academic achievement. No significant difference is found in general anxiety and examination anxiety.

Keywords: *Academic achievement, general anxiety, examination anxiety; self-esteem*

INTRODUCTION

In this era of globalization and technological revolution, education is considered as the first step for every human activity. It plays a vital role in the development of human capital and is linked with an individual's well-being and opportunities for better living. It ensures the acquisition of knowledge and skills that enable individuals to increase their productivity and improve their quality of life. The quality of students' performance remains a top priority for educators. It is meant for making a difference locally, regionally nationally, and globally.

Educators, trainers, and researchers have long been interested in exploring variables contributing effectively to the quality of performance of learners. These variables are inside and outside school which affects students' quality of academic achievement. Besides other factors, socioeconomic status is one of the most researched and debated factors among educational professionals that contribute to the academic performance of students. The most prevalent argument is that the socio-economic status of learners affects the quality of their academic performance. Most experts argue that low socioeconomic status has a negative effect on the academic performance of students because the basic needs of students remain unfulfilled and hence, they do not perform better academically. The low socioeconomic status causes environmental deficiencies which results in low self-esteem in students. Self-esteem, is commonly defined as "the individual's positive or negative attitude toward the self as a totality" (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995).

It has been demonstrated in numerous studies to be positively associated with various social and academic-related factors, including psychological well-being and academic performance (Grant-Vallone, Reid, Umali, & Pohlert, 2004). A group of psychosocial variables that correlate significantly with certain demographic variables like socioeconomic status, gender, parental involvement, parental education, financial status, anxiety, self-esteem, self-confidence, etc. affects the academic achievement of higher secondary school students.

Psychosocial adjustment refers to people's capacity to adapt to the environment, which means that the individual has sufficient mechanisms to feel good, integrate, and respond adequately to the demands of the environment. Psychosocial adjustment factors involve both psychological and social variables which influence various aspects of a student's behavior and development. Conley, Travers, and Bryant (2013) classified the factors of psychosocial adjustment as mental health, depression, self-esteem, self-concept, anxiety, self-confidence, emotion, social support, social adaptation, and socio-economic status. All the psychosocial factors are considered to be of great importance in the achievement of higher secondary students.

Periodically, people will experience a certain level of anxiety as it is considered a normal emotion. For instance, students at the university level as well as people of different ages might suffer anxiety. Perceptions of students' anxiety give impact their academic performance. Therefore, students should be able to recognize their thoughts or feelings and if it is related to anxiety or not. It was

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also established that both girls and boys are equally affected by test anxiety (Ndirangu, Muola, Kithuka & Nassiuma, 2009). Examination anxiety is an excessive worry about upcoming exams and a fear of being evaluated. It is experienced by many normal students. It is different from typical nervousness because it is more intense, more disruptive, and more disturbing. It is more potentially overwhelming. It is not helpful or motivating. Anxiety is present in everyone, yet few will openly admit to its presence. It encompasses tension, nervousness, fear, and worry. In this age of competition, students feel fear, tension, nervousness, and stress. Examination anxiety is a very serious problem as many cases of suicide are found in the newspapers during the period of examination. The symptoms of examination anxiety mainly refer to feelings of tension, nervousness, and worry as well as trembling, heart palpitations, and throat being dry.

Gender refers to socially constructed differences between males and females. Scholars, policymakers, and practitioners have observed and seem to agree upon socially constructed differences between males and females and their significant effects on their lives. Studies conducted across the world among students studying at different levels found a significant gender difference in academic performance. Several studies have reported that female students outperform their male counterparts (Orabi, 2007; Dayioglu & Turut, 2007; Khwaileh & Zaza, 2010). Ghazvini & Khajepour (2011) further argued that even gender difference exists at the level of cognitive functioning in the academic environment. Girls are likely to be more adaptive in learning in a different environment.

There is extensive empirical literature on gender differences in academic achievement. While girls have historically often been disadvantaged, they are now surpassing boys in the rate of school enrollment and grade completion even in many developing countries (Grant and Behrman, 2010). In modern times, the big picture is that girls tend to do better than boys in school (Voyer and Voyer, 2014), with differences tending to be more pronounced in minority groups, in urban areas, and among students from families with low socioeconomic status (Morris, 2012). To explain these observations, several theories about the impact of individual and contextual factors have been put forward. Although men and women seem to be similar on most psychological variables (Hyde, 2005), it has been argued that girls on average have superior performance on some behavioral skills that are crucial for academic success, such as self-discipline (Duckworth and Seligman, 2006). Boys, on the other hand, more often express aggressive behaviors and display more developmental difficulties and negative attitudes toward learning (Zill and West, 2001; Lansford et al., 2012). It could therefore be argued that girls, in general, more easily adjust to the school environment. Gender norms have also been suggested to play a role; specifically, aspects of expressed masculinity might negatively affect boys' achievement (Morris, 2012).

The present study aimed to find out the relationship between academic achievement and psychosocial adjustment factors of higher secondary students. In addition, the study examines the gender differences in academic achievement and in different psychosocial variables under study.

AIM

1. To explore the relationship between academic achievement and certain psycho-social variables among higher secondary students.
2. To identify whether there is any gender difference in academic achievement, self-esteem, examination anxiety and general anxiety among higher secondary school students.

HYPOTHESES

The study has been designed around the following hypotheses:

1. There will be a significant difference between male and female students in academic performance.
2. There will be a significant difference between males and females in exam anxiety, general anxiety, and self-esteem.
3. There will be a strong correlation between academic achievement and self-esteem.
4. There will be a negligible correlation between general anxiety and academic achievement.
5. There will be a negligible correlation between examination anxiety and academic achievement.

PROCEDURE

(A) Sample

The sample of the present study was 150 students drawn from higher secondary schools in the Kollam district of Kerala State. Among these, 75 students were boys and 75 were girls. The researcher opted random sampling method in the present study.

(B) Tools

1. Self-esteem inventory
2. Kerala general anxiety scale
3. Personal data sheet
4. Kerala Examination anxiety scale

(c) Data Collection Procedures

The investigator assured cooperation of the principal and the subject's instructor before starting the data collection. The researcher briefed the participants about the testing procedure and assured consent before beginning the test. All tests were administered based on the detailed instruction given in the manual.

(d) Data Analysis

The data were analyzed statistically using methods that made sense for the research hypothesis. The following statistical techniques were used for the analysis of data.

1. Pearson’s Product-moment Correlation Coefficient
2. The t-test

Results

To find out the relationship between psychosocial variables and academic achievement of higher secondary school students, Pearson product-moment correlation coefficient was used (Table 1). To examine the role of selected psychosocial variables on academic achievement, the sample was divided into two group based on sex differences, and the significant differences in the mean scores among different groups were tested using the t-test (Table 2). The psychosocial variables selected were academic achievement, self-esteem, examination anxiety and general anxiety.

Table 1: Correlations between Academic Achievement and Psycho-social Variables

Sl. No.	Variables	Academic Achievement	Self Esteem	Examination Anxiety	General Anxiety
1.	Academic Achievement	1.00	0.36**	-0.06	0.08
2.	Self Esteem		1.00	0.04	0.12
3.	Examination Anxiety			1.00	-0.10
4.	General Anxiety				1.00

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

Table 2: Result of the t-test for variable Academic achievement - Comparison of Male and female

SEX	SEX	N	Mean	SD	t-value
Academic Achievement	Male	75	68	12	2.57**
	Female	75	73	14	
Self Esteem	Male	75	76.17	16	2.00*
	Female	75	70.78	16.99	
Examination Anxiety	Male	75	14.58	4.03	.79 NS
	Female	75	15.06	3.36	
General Anxiety	Male	75	15.96	3.85	.75 NS
	Female	75	15.49	3.79	

** Significant at 0.01% level

*Significant at 0.05% level

NS: Not Significant

Discussion

Academic success tends to increase self-esteem and feelings of pride in one's abilities. The result of the present study (r = 0.36) shows a strong association between academic achievement and self-esteem, which is statistically significant at the 0.01 level. This is a strong connection between academic success and feeling good about oneself. Consequently, a causal relationship exists between students' academic success and their sense of personal worth.

Mirzaei-Alavijeh, Rahimi, Matin, and Jalilian (2018) found a favorable correlation between students' sense of self-worth and their academic performance. To a similar extent, Doodman, Zadeh, and Changizi (2017) found that poor academic performance is a major contributor to low self-esteem and that improved academic performance is a direct result of a more positive outlook on one's own abilities. High self-esteem, helps pupils work through their differences and achieve greater success in the classroom. Furthermore, Kalouti (2012) reveals a strong connection between students' sense of self-worth, social connections, and dedication to their studies. In addition, Sangeetha (2017) shows there is a robust connection between students' sense of self-worth and their academic success. Similarly, Booth and Gerard (2011) found that students' perceptions of themselves have a significant impact on their performance in school.

There was a strong positive relationship between academic success and self-esteem (Kostromina, & Dvornikova, 2016). More research shows a strong connection between one's sense of self-worth and success in school. A positive sense of one's worth influences success in school (Aryana, 2010). Study motivation is something that Alam et al. (2010) look at from a psychological perspective. Proper management of time, stress, anxiety, and consultation (relationships) with instructors were all shown to have a positive effect on students' performance in the context of pursuing higher education (educators).

Exam anxiety does not correlate in any meaningful way with better grades. In the present study, the correlation between the two variables is -0.06 (N = 150), which is very low. Studies addressing psychosocial factors that predict academic success are limited even though various authors have suggested that psychosocial factors play a key role in predicting the academic success of

disadvantaged students (Malefo, 2000). The study conducted by Jitender (2013) revealed that there was a significant relationship between academic anxiety and achievement. Balogun, Balogun, and Onyencho (2017) found that test anxiety has a negative impact on academic performance, and achievement motivation has a positive impact.

The result from the present study was in agreement with the studies conducted by Keogh, et.al. (2004) and Chapell et al. (2005). They found a relationship between the level of test anxiety and academic achievement. For instance, students had higher academic achievement with low test anxiety than students with moderate test anxiety. And, students with moderate test anxiety had higher academic achievement than students with higher test anxiety.

General anxiety is correlated with higher levels of academic accomplishment ($r = 0.08$). A correlation of 0.08 between academic performance and overall anxiety is not statistically significant at the 0.01 level. Since there is no significant correlation between the two, academic success and anxiety are unrelated.

There was no statistically significant relationship ($r = 0.12$) between low self-esteem and examination anxiety. A student's self-confidence level is unrelated to how much stress they feel before taking a test. Deshmukh (2000) explored the relationship among anxiety, achievement motivation, intelligence, goal discrepancy, and academic achievement of junior college students with high and low self-concept. The findings of the study indicated the inverse relationship between self-concept and anxiety. The reason for this may be that individuals with high self-concept feel that they can face the problems of life and a person with high self-concept hold high achievement motivation in order to advance himself in all possible walks of life.

It was shown that there was no statistically significant relationship ($r = 0.12$) between self-esteem and general anxiety. In a weak and small way, these two factors are linked together. Therefore, an increase in self-esteem automatically results in a corresponding rise in anxiety levels.

Worrying about examination anxiety is inversely related to anxiety about life in general ($r = -0.10$). In a weak and small way, these two factors are linked together. Exam anxiety was unrelated to general anxiety ($r=0.10$). Anxiety about tests correlates poorly with everyday worries.

The difference in mean scores of males ($M=68$) and females ($M=73$) in academic achievement is significant ($t=2.57$, $P<0.01$). This means that females have higher academic achievement compared to males. Similarly, the mean scores obtained by male ($M=76.17$) and female ($M=70.78$) in self-esteem is also significant ($t=2.00$, $P<0.01$). This means that the self-esteem of the male is higher than that of female students.

The mean scores of males ($M=14.58$) and females ($M=15.06$) in examination anxiety are not significant ($t=0.79$, $P>0.01$). Similarly, the mean scores obtained by males ($M=15.96$) and females ($M=15.49$) in general anxiety are also not significant ($t=0.75$, $P>0.01$). While considering the variables examination anxiety and general anxiety, we cannot see sex differences in experiencing anxiety.

Tiwari (2008) conducted a study on examination stress among school students. The findings indicated that both the boys and the girls have the same view that the board examinations cause restlessness and anxiety about tough subjects. Both boys and girls felt stress from friends by the constant talk about examination-related matters. The boys and girls both feel board examination stress due to over expectations of teachers, method of teaching, continuous test, aggressive behavior of teachers, and fewer opportunities for co-curricular activities irrespective of gender.

Chee et.al., (2005) investigated gender differences in the academic ethic and academic achievement among college students. Results of our analysis indicate that women are more likely to possess an academic ethic than men and that women also tend to have higher Grades. Mwangi and Ireri (2017) established gender differences in academic resilience and academic achievement among secondary school students in Kiambu County. Significant gender differences in mean academic resilience scores were found in favor of girls ($t=1.97$, $p=.05$).

Findings

1. There exists a substantial relationship between the variable academic achievement and self-esteem.
2. The relationship between academic achievement and examination anxiety is not significant.
3. The relationship between academic achievement and general anxiety is not significant.
4. The relationship between self-esteem and general anxiety is not significant.
5. There exists a significant difference in academic achievement between boys and girls.
6. There is no significant difference in examination anxiety between boys and girls.

CONCLUSION

The findings of this study revealed a significant relationship between self-esteem and academic achievement. Test anxiety impacts adolescents' academic achievement. It decreases adolescents' learning capabilities and hinders excellent academic performance. Test anxiety decreases motivation towards the ability for attention, and concentration, and worst, it leads to academic failure. Therefore, school and family institutions must assist students in managing their test anxiety through counseling, relaxation, and behavioral techniques and adopt measures to improve their self-esteem. Selected preventive activities can be proposed at the senior secondary level for targeted students with academic problems. Specialized intervention tailored to male students is suggested in order to improve male students' academic achievement.

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