Evaluating the Relationship between Gender, Depression and Academic Performance among Secondary School Students

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Introduction

Depression may be described as feeling sad, unhappy, miserable, or down in the dumps. Most of us feel this way at one time or another for short periods. True clinical depression is a mood disorder in which feelings of sadness, loss, anger, or frustration interfere with everyday life for an extended period of time (Ballas, 2009).

In our society academic achievement is considered as a key criterion to judge one's total potentialities and capacities. Hence academic achievement occupies a very important place in education as well as in the learning process. Academic achievement is defined by Crow and Crow (1969) as the extent to which a learner is profiting from instruction in a given area of learning i.e. achievement is reflected by the extent to which skill and knowledge has been imparted to him. Academic achievement also denotes the knowledge attained and skill developed in the school subject, usually designed by test scores. Gender issue has become the talk of today's forum. Although the literacy rate is more among the boys than girls; it is quite interesting to observe that girls are securing better ranks than boys in almost all competitive examinations.

Many factors affect academic achievement. One of them is depression. Depression has a high prevalence and relationship with both memory and academic achievement. Depression indices are: persistent sadness, discouragement, loss of self-worth and interest in daily activities. True depression in teens is often difficult to diagnose because normal adolescent behaviour is marked by both up and down moods. These moods may alternate over a period of hours or days. Depression has an effect on academic achievement.

Statement of Problem

 To evaluate the relationship between gender, depression and academic performance among secondary school students.

Need for the Present Study

Ages between 15- 17 are the age of adolescence. The individual faces many factors that each of them individually or in combination play an important role to determine the present state and also shape his/her personality in the future about various aspects of academic, interpersonal, cultural and the personality.

Bodily changes due to chemical and hormonal mechanisms such as face acne, base voice, release of sexual hormones (androgen and estrogen) and activation of sexual interests.

Psychological factors such as psychological crisis of ego identity versus role confusion and how to solve this conflict.

Interpersonal reasons such as seeking new modes, tendency to peers, seeking independency, and disturbed interpersonal relationships with parents.

 Academic reasons such as type of school, type of teacher, change in medium of instruction, expose to new educational subjects for the first time, ambiguous thinking about future academics and job situations.

Technological factors including increased interest and excessive use of internet, mass media, mobile, spends more time on these and less time on study.Parental pressures and expectations, namely to excel in the class.

The above factors can change the individual psychological environment and affecting his/her thought processes; can influence their mood, interpersonal relationships, self concept, self esteem and self efficacy. It means that inappropriate coping to the above factors and inability to solve conflicts leads to depression which in turn result in negative self concept, self esteem (e.g. I'm ugly) and low in self efficacy(e.g. I cannot continue my studies). These factors may create pessimism towards the self, education, and future and as a result the individual shows depressive symptoms that appear as academic failure and drop out. If the students who are suffering from depression can be identified, and if preventive efforts to help them in effective coping with problems to overcome on depression, not only will it help their academic achievement, but will

also affect their attitude towards the present and future, and in turn prevent the negative symptoms of thinking that are predisposing factors for many psychological and personality disorders.

Objectives

    1. To find out the relationship between depression and academic performance of secondary school students.

    2. To find out the relationship between depression and gender of secondary school students.

    3. To find out the relationship between academic performance and gender of secondary school students.

Hypothesis

    1. There will be no significant difference in depression and academic performance of secondary school students.

    2. There will be no significant difference in depression and gender of secondary school students.

    3. There will be no significant difference in academic performance and gender of secondary school student.

Review of related literature

Adina et al, (2007) found that females were more depressed than males. The Chinese students were more depressed compared to Indian students. Students whose parents had no formal education or had only primary education were more depressed than students whose parents had secondary, college or university education. Depression increased with increasing number of siblings. Depression contributed to the habit of drug abuse, gum sniffing and stealing but not to smoking and alcohol abuse. Suicidal tendencies were more likely among the depressed students. Antonio Fernandez-Castillo et al, (2009) indicates that a significant association between depression and anxiety in parts of the sample, as well as a significant inverse association between depression and academic performance. Fayegh et al, (2009) shows that depression significantly affected academic achievement and this relationships is mediated by memory (Z=1.65, p$\leq$ 0.). Md Yassin et al, (2011) revealed that there were significant differences in depression, anxiety, and stress between low-and high-achieving students.Busari, A.O. (2012) showed that 26.5% of the boys and 30.7% of the girls were depressed and that depression and academic performance were significantly correlated, r = -0.24, p$\leq$0.000. Also, based on results of the present study, age and academic performance were significantly correlated (r = 0.25, p$\leq$0.000). In addition there was significant difference of academic performance between male and female, (t (1) = -5.51, p = 0.000).Maggie et al, (2012) found that the outcomes of depression are poor academic performance, psychosocial retardation, conduct problems, cognitive distortion, and suicide. Depression is a major mental health problem among Chinese children and adolescents. Jane D. McLeod et al, (2012) shows that attention problems, delinquency, and substance use were significantly associated with diminished achievement, but depression was not. Ali Khaneh Keshil et al, (2013) showed a significant change (reduction) from pre-test to post test in depression and its subscales. Further, results demonstrated that the effects of new combined variable (that is group) on depression and its subscales was statistically significant. Comparison of mean scores of two groups in post-test showed a significant difference in depression.Neelam et al, (2013) revealed that there exist significant differences in academic anxiety and academic achievement of male and female secondary school students. Girls found to be more academically anxious and had better academic achievement than boys.

Methodology

Method: For conducting the present investigation, 'Survey Technique under Descriptive Method of Research' was used.

Sample: In the present study, a representative sample of 100 students (50 males and 50 females) studying in class 9th and 10th grade from Sovabazar, North Kolkata.

Tools:

    1. Beck Depression Inventory (BDI) [21] developed by   Beck, A.T. & Steer, R.A. was used for measuring depression. The internal consistency for the BDI ranges from 0.73 to 0.92 with a mean of 0.86 and the BDI demonstrates high internal consistency with Cronbach's alpha co-efficient 0.86 and 0.81 for psychiatric and   non-psychiatric populations respectively (Bech et al., 1988).

This BDI is translated to Bengali and use it in Bengali medium secondary school.

    2. The marks of sampled students in their previous examination i.e. marks of class 8th and 9th grade were taken as their academic achievement.

Statistical Technique: A descriptive statistical analysis (means and standard deviations) was done to characterize the depression, academic achievement and gender. A Pearson correlation was calculated to evaluate the level of significance of the relationship between the depression score and academic achievement. In addition, a t-test was done to test the relationship between gender and academic performance and also t-test was conducted to test gender with depression.

Data analysis

Interpretation

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PERCENTAGE	100	14	76	40.70	12.398
BDI	100	4	39	17.78	8.225
Valid N (listwise)	100				

Table 1 shows that the minimum and maximum values of percentage are 14 and 76 and the mean score and s.d. of percentage are 40.70 and 12.398. Again, the minimum and maximum values of B.D.I. are 4 and 39 and the mean and s.d. of B.D.I. are 17.78 and 8.225.

Table 2: **Correlations**

		PERCENTAGE	BDI
PERCENTAGE	Pearson Correlation	1	-.182
	Sig. (2-tailed)		.070
	N	100	100
BDI	Pearson Correlation	-.182	1
	Sig. (2-tailed)	.070	
	N	100	100

The result in Table 2 showed that depression and academic achievement were found to be significantly correlated (r = -.182), therefore there was a significant relationship between depression and academic achievement. Hence the first null hypothesis was rejected.

Table 3:

Table 3.1: Group Statistics

	GENDR	N	Mean	Std. Deviation	Std. Error Mean
BDI	1	50	16.24	6.880	.973
	2	50	19.32	9.193	1.300

Table 3.2: Independent Samples Test

		Levene' s Test for Equality of Variances		t-test for Equality of Means							
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
BDI	Equal variances assumed	5.704	.019	-1.897	98	.061	-3.080	1.624	-6.302	.142
	Equal variances not assumed			-1.897	90.780	.061	-3.080	1.624	-6.306	.146

Table 3.1 showed that mean score (19.32) of female students were higher than mean score (16.24) of male students on depression.

It is evident from the table 3.2 that 't' value (-1.897) was significant (sig .019, df=98). Which mean that there exists significant difference in depression of male and female secondary school students.

Hence second null hypothesis is rejected.

Table 4:

Table 4.1: Group Statistics

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
PERCENTAGE	1	50	38.60	13.345	1.887
	2	50	42.80	11.112	1.571

Table 4.2: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
							Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)			Lower	Upper
PERCENTAGE	Equal variances assumed	4.367	.039	-1.710	98	.090	-4.200	2.456	-9.073	.673
	Equal variances not assumed			-1.710	94.888	.090	-4.200	2.456	-9.075	.675

Table 4.1 showed that mean score (42.80) of female students were higher than mean score (38.60) of male students on academic achievement.

Table 4.2 shows that 't' (-1.710) was significant (sig .039, df=98). Which mean that there exists significant gender difference in academic achievement of secondary school students.

Hence third null hypothesis is also rejected.

GRAPH 1:
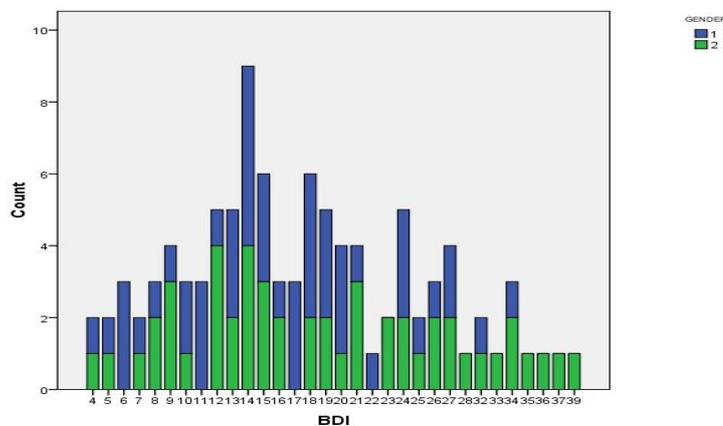
Graph 1 show that female (2) students experienced more depression than male (1) students in secondary school. The modal value of depression score is 14.

GRAPH 2:
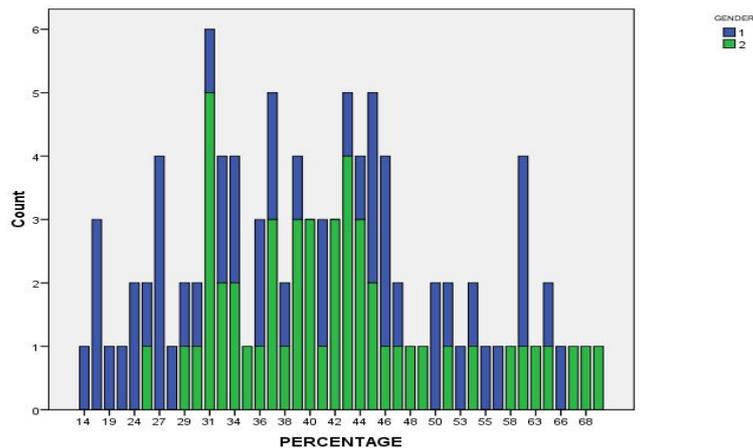
Graph 2 indicates that the percentage i.e. academic achievement of female (2) students is better than male (1) students in secondary school. The modal value of percentage is 31.

Discussion

The results from the present study shows depression affects academic performance (r = -.182). If the depression is low then the academic performance is high and if the depression is high then the academic performance is low. There was a significant relationship between depression and academic achievement (Busari, 2012).Therefore the present study shows that the negative relationship between depression and academic performance of secondary school students.

The present study shows that there was a significant difference in depression and gender of secondary school students. Female students experienced more depression than male students. Mean score (12.69) of female students were higher than mean score (9.25) of male students on academic anxiety (Neelam 2013).

The present study shows that there was a significant difference in academic performance and gender of secondary school students. Female students are better in their academic achievement than that of male of secondary school students. Mean score (50.89) of female students were higher than mean score (46.01) of male students on academic achievement (Singh V., 2014).

Conclusion

Depression was found to have serious effects on academic performance among secondary school students. It decreased academic achievement. It could also decrease motivation in ability attention, concentration and leads to academic failure.These studies have provided evidence of a relationship between depression and academic performance among secondary school students. It is therefore suggested that counsellors in the secondary schools should make it a point of duty to introduce preventive activities such as guidance to prevent occurrence of depression, counselling to ameliorate the level of depression in already depressed students and teach life skills and other therapeutic techniques could improve academic performance and to reduce the effects depression is likely to have on academic performance of the youths.

Acknowledgements

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