
Moderating Role of Self-Esteem in Relation Between Aggression and Academic Performance in Adolescents

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ABSTRACT: *Introduction: The study aims to find out the moderation role of self-esteem in relation between aggression and academic performance based on studies which confirms negative relation on aggression and academic performance. It also aims to understand the relationship between aggression and self-esteem of adolescents. A Quantitative research technique is used for the purpose of this correlational study conducted among 204 adolescents in India, between the age of 15 years and 18 years old. Rosenberg Self-Esteem Scale and Aggression Questionnaire by Buss & Perry is used. Academic performance was assessed using GPA, considering the centralized evaluation under respective educational boards in India. The results of descriptive analysis for the study variables indicates that there is a strong negative correlation in the relationship between aggression and self-esteem along with showing no significant correlation between the academic performance and aggression. Linear regression was used after centralising the variable to prepare moderation model to identify the moderating effect of self-esteem and a significant value was not found to predict the moderation. Conclusion: The current study shows that additional factors need to be considered to enhance self-esteem of the students rather than assessing them on the basis of their academic performance.*

KEY WORDS: self-esteem, adolescents, aggression, academic performance

INTRODUCTION

The role of self-esteem is found to be an inevitable factor in a person's life and an important determinant of a person's mental health. A high level of self-esteem may help in building relationships. A low self-esteem individual will show the depressive symptoms. Self-esteem can be defined as an individual's attitude about themselves. self-esteem is one's positive or negative attitude toward oneself and one's evaluation of one's own thoughts and feelings overall in relation to oneself, Rosenberg, .Studies have found that, students who are low on self- esteem, is scoring less on academic performance, Dr.Funmilola Bosede et al., 2014.

Academic performance reflects upon the results of learning. People with low self-esteem have low motivation and consider them as worth less. Therefore it will affect their needs. Studies have found that individuals who are high on aggressive behaviour

score less on academic performance. The poor peer relations of aggressive children could make them isolated psychologically or physically from peers, which in turn might result in depressive or disruptive problems, Yamasaki K & Nishida.,2009. Aggressive behaviours progress from less to more severe over the course of adolescent development, Loeber & Hay, 1997; Tolan et al., 2000.

Researchers have studied the influence of self-esteem on academic performance and aggressive behaviour on academic performance and found a significant relation between them. Studies have also focused on peer rejection and aggression. Though there are past studies that identifies the relationship between academic performance and self-esteem, there is no significant information stating that self-esteem influences the relationship that exist between academic performance and aggression that is, the role of self-esteem as a moderating factor of aggression and academic performance is not studied. Adolescents are in an age group that particularly needs attention and focus to shape their educational growth and future.

Study helps the future researchers to deal with growing adults to enhance their self-esteem and to understand its influence on aggression. This study will be also helpful in adolescent counselling, in the cases where the individuals perform less in academics. The study also enables the researcher to extend the focus of domain by understanding the moderating role and also to determine the change observed in cause and effect relationship. Aggression will impact on social relationship and personal life of the individual which is needed to be addressed. Thus the parents and teachers will be able to give individual attention and focus to the adolescents who are low in self-esteem and help them to achieve a higher self-esteem, thereby reducing their aggressive behaviour and increasing their academic performance. The primary objectives of the study is to study the role of self-esteem as moderating factor between aggression and academic performance, and study the relationship between the variables academic performance, aggression and self-esteem.

REVIEW OF LITERATURE

•Studies showing the role of self-esteem on academic performance.

John, L., et.al., (2004) found a significant relationships between self-efficacy and self-esteem. The study also found the mediating role of self-efficacy in the relationship between performance accomplishments and academic performance.

The need to re study the role of self-esteem using the different scale for high school students is found from the study of Morrison et.al., (1973) who used 3 measures of self-esteem to test that low self-esteem would predict getting lower grades on an examination and confirmed it for Coppersmith's Self-Esteem Inventory but not for other two scales such as Ziller's Social Self-Esteem scale or for the subscale of Coopersmith's Inventory specifically relevant to school self-esteem.

Alokan, F.B., et.al., (2014) in their study found the significant negative relation of self-esteem on academic performance among secondary school students. The study concluded that students with high self-esteem performed better in academics than students with low self-esteem level.

Arshad.M.,et.al., (2015) conducted a study to assess the self-esteem and academic performance among university students and found that there was a significant relationship between self-esteem and academic performance. Also a significant gender difference was also found on self-esteem and academic performance scores, which indicate that female students have high scores on academic performance as compared to male students and male students have high scores on self-esteem as compared to female students.

Here the predictive factor like aggression is not studied in this case even though the study addresses the behavioural issues.

- Studies showing the significance of focusing on gender difference on aggression and academic performance and defines the insignificant relation of personality trait and aggression

Donnellan, B.,et.al., (2005) found that the effect of self-esteem on aggression was independent of narcissism, which was against the concept that narcissistic people will tend to be aggressive

The study clearly gives insight about the independent role of personality in aggressive behaviour which is taken into account and avoided personality trait in my study and focused on aggressive behaviour, combining the role of self- esteem.

Reyes.M., et.al.,(2017) identified a negative association between academic performance and Physical Aggression in both sexes which indicates that physical aggression negatively affects academic performance of both males and females.

- Studies showing relationship between aggression and self-esteem

A study conducted by Uludag (2013) on the influence of aggression on student achievement has confirmed the negative effect of aggression on student's current and cumulative academic achievement scores.

Amad,s., (2015) found that global self-esteem is negatively related with aggression and also found that self –esteem is a predictive factor of reactive aggression.

Shaheen,F., & Jahan,M.,(2014) identified the significant negative relation between self-esteem and aggression among adolescence from a study conducted on senior secondary school students of Aligarh Muslim university, India. This results shows the relevance of the usage of Rosenberg's self-esteem scale and Buss-Perry Aggression questionnaire in Indian context.

METHOD

A Quantitative research technique is used for the purpose of this correlational study conducted among 204 adolescents in India, between the age of 15years and 18 years old. Rosenberg Self-Esteem Scale and Aggression Questionnaire by Buss & Perry is used. Academic performance was assessed using GPA, considering the centralized evaluation under respective educational boards in India.

The project was done with consideration of ethical issues and obtaining license from the ethics of their local committee and obtaining the written consent of participants. Also, it was done according to ethical standards of human experimentation in accordance to the Helsinki Declaration.

All experiments were performed in compliance with the relevant laws and institutional guidelines. The paper was submitted for the ethical consideration and was accepted by the Research Conduct and Ethics Committee (RCEC) of the institution. Informed consent was obtained from each participant and the details of the study and a research participant's right were briefed.

Tools used

Aggression Questionnaire (Buss & Perry, 1992)

The Buss–Perry Aggression Questionnaire (BP-AQ) is a 29-item, four-factor instrument that measures physical aggression, verbal aggression, anger, and hostility. Correlations among components range from .25 to .48. The factor structure of the Aggression questionnaire has been replicated in several confirmatory analyses. Its internal consistency was ranging from .53 to .85. Aggression questionnaire is a 5 point scale – from 1 = extremely uncharacteristic of me to 5= extremely characteristic of me.

The two questions with the asterisk are reverse scored.

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The scale is a ten item Likert scale with items answered on a four point scale - from 1= strongly agree to 4= strongly disagree. 5 items with an asterisk are reverse scored. Sum the scores for the 10 items. The higher the score, the higher the self-esteem. The scale generally has high reliability, with test-retest correlations value between 0.82 and 0.88.

Academic performance –GPA

RESULT

The sample is chosen from the students finished 10th standard under CBSE schools from various part of India along with kerala state board considering highest literacy rate of the state when compared to other states of India. The 10th standard marks are taken considering the centralised evaluation of both the board of examinations. Scores in grade point average are converted into percentage using standardised conversion table for CBSE results.

Table 1

Mean and standard deviation for the study variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Aggression(total score)	204	39	137	86.50	17.901
Self esteem	204	5	27	17.90	4.790
academic performance	204	68	100	88.38	7.558
Valid N (listwise)	204				

Table 2

Spearman's rank order correlations for the study variables

			academic performanc e	Aggression(total score)	Self esteem
Spearman's rho	academic performance	Correlation Coefficient	1.000	.075	.069
		Sig. (2-tailed)	.	.284	.329
		N	204	204	204
	Aggression(total score)	Correlation Coefficient	.075	1.000	-.339**
		Sig. (2-tailed)	.284	.	.000
		N	204	204	204
	Self esteem	Correlation Coefficient	.069	-.339**	1.000
		Sig. (2-tailed)	.329	.000	.
		N	204	204	204

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

Linear regression**Table 3**

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
	(Constant)	81.075	4.045		20.045	.000	
1	Aggression(total score)	.051	.032	.120	1.603	.110	.873 1.146
	Self esteem	.163	.118	.103	1.382	.169	.873 1.146

a. Dependent Variable: academic performance

Results indicates that aggression and self-esteem do not significantly predict academic performance. In bivariate correlation, aggression and self-esteem are highly correlated. Here the variable is centralised to prepare moderation model to know whether self-esteem is moderating, by transforming the data. After transforming, linear regression test is again conducted to check moderator is fitting into the hypothesis or not.

Table 3.1

coefficients

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
	(Constant)	87.776	3.147		27.893	.000	
1	Aggression(total score)	.007	.036	.017	.195	.845	.678 1.474
	Moderator	.782	.566	.117	1.382	.169	.678 1.474

a. Dependent Variable: academic performance

Table 3.2*ANOVA*

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	188.495	2	94.247	1.661	.193 ^b
1	Residual	11407.682	201	56.755		
	Total	11596.176	203			

a. Dependent Variable: academic performance

b. Predictors: (Constant), Moderator, Aggression(total score)

Table 3.3*Model summary*

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.127 ^a	.016	.006	7.534

a. Predictors: (Constant), Moderator, Aggression(total score)

b. Dependent Variable: academic performance

A linear regression was calculated to predict Academic performance based on aggression and self-esteem. A significant regression equation was not found ($F(2,201)=1.66, p<.193$) with an R^2 of 0.16

Table 1 describes the result of descriptive analysis, which shows that aggression has a higher mean score of ($M=86.5, SD=17.9$), Self-esteem shows a moderate level ($M=17.9, SD=4.7$) Academic performance gives a higher mean score of ($M=88.38, SD=7.5$).

Spearman's rho correlation coefficient was used to assess the relationship between academic performance and aggression, aggression and self-esteem, academic performance and self-esteem. There was no significant correlation between the academic performance and aggression, $r_s = .75, p= .28, N=204$ The result also indicated that there is no significant relationship between academic performance and self-esteem, $r_s = .7, p= .32, N=204$ There is a strong negative correlation between aggression and self-esteem, $r_s=.34, p=0, N=204$ This indicates that when aggression increases, self-esteem will decrease or when the self-esteem increase, the aggression will be lesser. These results are summarized in table 2.

A linear regression was calculated to predict Academic performance based on aggression and self-esteem. In bivariate correlation, aggression and self-esteem are

highly correlated. Here the variable is centralised to prepare moderation model to know whether self-esteem is moderating, by transforming the data. After transforming, linear regression test is again conducted to check moderator is fitting into the hypothesis or not.

A significant regression equation was not found ($F(2,201) = 1.66, p < .193$) with an R^2 of 0.16 (table 3-3.3).

DISCUSSION

This study was aimed at finding the moderating role of self-esteem in relation between aggression and academic performance on the basis of studies that proves the significant negative correlation between aggression and academic performance, Donnellan, B., et al., 2005.

Result shows a strong negative correlation in the relationship between aggression and self-esteem ($r_s = -.34$) along with showing no significant correlation between the academic performance and aggression, $r_s = .075, p = .28$.

The result of current study indicates that self-esteem doesn't act as a moderator variable. A simple linear regression was calculated to predict Academic performance based on aggression and self-esteem. This can have the elements of social modelling, comparing oneself with others, in studies also this will have a result. This study does not question the other findings which states that self-esteem can indicate a reaction to school performance, Alves-Martins et al., 2002; Bridgeman & Shipman, 1978; Morvitz & Motta, 1992; Osborne, 1995; Rosenberg et al., 1995. While these factors can still exist, other population also exists whose study goes mechanically which can be due to excessive pressure from the society and parents, without considering the overall mental development of the students. When they pass out this can have an impact on their professional life and personal life. They tend to keep education and getting higher score aside which is regarded as mandatory for one to score well, at the same time losing on their perception about themselves due to various other reasons which needs to be brought up from undercover.

The current study revealed that high self-esteem is not necessarily related to subsequent academic achievement showing another argument against enforcing self-esteem boosters. The modest correlations between self-esteem and school performance do not indicate that high self-esteem leads to good performance. Instead, high self-esteem is partly the result of good school performance, Baumeister R.F et al., 2003.

Another explanation for the results can be that the age of student that should be taken into account when looking at the strength of the relationship between self-esteem and academic achievement, Ulrich, J.K., 2010. According to Rubin & et al., (2007) this relationship is a function of age and tends to strengthen over time. As young people mature, Self-esteem ratings become more stable. Academic measures become more important to children around the third grade and the relationship between self-esteem and academics becomes stronger with age, Bridgeman & Shipman, 1978

A study conducted on Self-Esteem & Academic Performance among University Students, a significant difference was found between male and female students on self-esteem and academic performance scores, which indicate that female students have high scores on academic performance as compared to male students and male students have high scores on self-esteem as compared to female students Arshad et al., 2015. This reveals that irrespective of self-esteem, the academic performance tends to vary in these populations.

Implication to Research and Practice

This study does not question the other findings which states that self-esteem can indicate a reaction to school performance (Alves-Martins et al., 2002; Bridgeman & Shipman, 1978; Morvitz & Motta, 1992; Osborne, 1995; Rosenberg et al., 1995). While these factors can still exist, other population also exists whose study goes mechanically which can be due to excessive pressure from the society and parents, without considering the overall mental development of the students. When they pass out this can have an impact on their professional life and personal life. They tend to keep education and getting higher score aside which is regarded as mandatory for one to score well, at the same time losing on their perception about themselves due to various other reasons which needs to be brought up from undercover which impact the self-esteem. Several studies (Osborne, 1995; Ross & Broh, 2000; Van Laar, 2000) also mentioned that “disidentification” or disengagement both contribute to academic achievement. These studies note that African-American students are more likely to detach themselves from academic outcomes. Having noted this, race and culture seem to play especially important roles in determining academic performance rather than influence of the self-esteem.

CONCLUSION

The debate over the relation between self-esteem and academic performance still exists. The current study was aimed at to identify the moderating role of self-esteem in relation between academic performance and aggression. Results have found that there is a strong negative correlation in the relationship between aggression and self-esteem which means, students with higher self-esteem tend to have lower aggression level. The result shows that self-esteem does not correlate with the academic performance. The result of current study indicates that self-esteem doesn't act as a moderator variable.

Future research

Future research between these variables including self-esteem and academic performance is necessary especially for school counsellors to build an effective comprehensive guidance curriculum for students. Ross and Broh (2000) noted that high self-esteem is not necessarily related to subsequent academic achievement showing another argument against enforcing self-esteem boosters. Other studies (Rosenberg et al., 1995; Rosenberg et al., 1989), in agreement assert that techniques/strategies for self-esteem enhancement would have little or no effect on academic achievement.

The current study shows that additional factors need to be considered to enhance self-esteem of the students rather than assessing them on the basis of their academic

performance. This shows future implications and scope for a new scientific research in the field of educational psychology. Thus the application of the findings will help many people who are related to the educational setting.

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