



EFFECT OF OBESITY ON ACADEMIC ACHIEVEMENT AND BODY IMAGE DISSATISFACTION AMONG ADOLESCENTS

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Abstract: Obesity is widely considered to be one of the most serious public health problems of recent times, not only increasing health care costs and risk of illness but also burdening individuals with severe psychological consequences (Friedman& Brownell,1995). Next to self-esteem and emotional well-being, body image is a key concept believed to be negatively affected in obesity (Wardle& Cooke, 2005). Body image is a multidimensional construct and refers to a person's perceptions and attitudes, including feelings, thoughts and behaviours', regarding their own body and appearance (Cash, 2004). Obesity or being overweight has been implicated as factors in poor academic performance for elementary and high school aged students. Several studies have implicated early childhood and adolescent obesity and/or being overweight, in poor performance in school (Burkhalter and Hillman, 2011, Yates et al., 2012).The present study investigated the relationship between obesity, academic achievement and body image dissatisfaction among adolescent boys and girls in Kolkata. 150 high school students were selected randomly. Body Image Questionnaire had been administered.

Keywords: Obesity, Academic achievement, Body image dissatisfaction and Adolescents.

1. Introduction

Obesity is one of the biggest health concerns in communities across the country, with about 70 percent of county officials ranking it as a leading problem where they live. After decades of increasing, the national obesity rate among 2- to 19-year-olds has begun to level off and the rise of obesity among adults has slowed over time. Yet obesity remains a bigger threat to our health and country now than it was a generation ago. Individuals who are obese are at increased risk for type 2 diabetes, heart disease, some forms of cancer, dementia and a number of other health concerns. The adolescent period of human life is one of the vital times when most of the body growth and development occur. Preparation for adulthood takes place in this period in the form of physical, sexual, and psychological growth and development. Nearly 35% of the global burden of disease has its root emergence in adolescence. Overweight and obesity are defined as "abnormal or excessive fat accumulation that presents a risk to health." Energy imbalance between consumed and expended constitutes the primary aetiology behind overweight and obesity. Changing dietary pattern and sedentary lifestyle are said to have led to the increasing prevalence of overweight and obesity. Obesity among adolescence is a severe public health problem that is increasing all around the world. It becomes one of the most significant leading causes of avoidable illness and death. The World Health Organization (WHO) now considers obesity as a global epidemic around the entire world, and it becomes one of the most common disorders encountered in medical practices and has major public health implications. Obesity in adolescents is found to have association with the occurrence of various lifestyle diseases such as diabetes, hypertension, dyslipidaemia, osteoarthritis during adulthood. Body-image dissatisfaction was believed to be associated with the onset of puberty. The development of body image dissatisfaction occurs as much as 2 to 5 years before the onset of puberty.

2. Literature Review

Obesity is widely considered to be one of the most serious public health problems of recent times, not only increasing health care costs and risk of illness but also burdening individuals with obesity with severe psychological consequences (Friedman& Brownell,1995). Next to self-esteem and emotional well-being, body image is a key concept believed to be negatively affected in obesity (Wardle& Cooke, 2005). Body image is a multidimensional construct and refers to a person's perceptions and attitudes, including feelings, thoughts and behaviours', regarding their own body and appearance (Cash, 2004).

De Sousa PM (2008) said that in current society, body and beauty's cult emerge as one of the main factors of adolescence. That leads adolescents to be dissatisfied with their own appearance, to psychological maladjustment, and nutritional disorders. The concept of body image as a psychological phenomenon was initially established in 1935 by Austrian psychiatrist Paul Ferdinand Schilder. Body image is a multidimensional construct that involves internal biological and psychological factors. Individuals who perceive their body negatively may have low self-esteem, low satisfaction in life and feeling of inferiority and pose themselves at a higher risk of depression (Goswami, et al, 2012).

Adolescence represents a pivotal stage in the development of positive or negative body image. Many influences exist during the teen years including transition (e.g. puberty) that affect one's body shape, weight status and appearance. Weight status of youth (i.e. overweight and obese) is strongly connected to body image. Specifically, research consistently shows that greater body mass



index is associated with heightened weight concerns in both adolescent girls and boys. Indeed appearance and weight related concerns and pressures mediate associations between body weight /BMI and body image (Voelker DK et al, 2015).

Weinberger (2017) highlighted on “Body Dissatisfaction in Individuals with Obesity Compared to Normal-Weight Individuals: A Systematic Review and Meta-Analysis.” Body dissatisfaction has been identified as a psychological correlate of obesity that is related to disordered eating, poor self-esteem, and depression. However, not all individuals with obesity are equally vulnerable to these correlates, and ‘normative discontent’ is present in individuals with normal weight, too. The findings underline the severity of body dissatisfaction among individuals with obesity and especially among women.

Obesity and/or being overweight have been implicated as factors in poor academic performance for elementary and high school-aged students. Several studies have implicated early childhood and adolescent obesity and/or being overweight, in poor performance in school (Burkhalter and Hillman, 2011, Yates et al., 2012).

Taras and Datema (2005) focused on “Obesity and Student Performance at School.” Research demonstrates that overweight and obesity are associated with poorer levels of academic achievement.

Nino et al. (2014) researched on “Physical Fitness, Obesity, and Academic Achievement in Schoolchildren.” Their findings show that academic achievement scores were positively related to fitness levels. Obese boys had lower scores for academic achievement than over weight or normal weight boys.

3. Objectives of The Study

1. To compare the academic achievement level and body image dissatisfaction level of adolescent boys and girls.
2. To find out the correlation between obesity, body image dissatisfaction and academic achievement among adolescent boys and girls.
3. To find out the impact of gender and BMI on body image dissatisfaction and academic achievement of adolescents.

4. Hypotheses

1. There is no significant difference between academic achievement level and body image dissatisfaction level of adolescent boys and girls.
2. Gender and BMI have no significant influence on body image dissatisfaction and academic achievement of adolescents.
3. There is a no significant association between obesity, body image dissatisfaction and academic achievement among adolescent boys and girls.

5. Methods

In the present investigation, 150 high school students were selected by random sampling method. Among them 75 were males and 75 were females. The samples were selected from schools of Kolkata. Body Image Questionnaire by D.Veale (2009) was used to measure the body satisfaction/dissatisfaction level. Report card of the previous class was consulted for academic achievement.

6. Results and Discussion

Table 1: Summarized Results of One Way Anova of academic achievement and body image dissatisfaction score by gender

		Sum of Squares	df	Mean Square	F	Sig.
academic achievement	Between Groups	12.907	1	12.907	6.002	.015
	Within Groups	318.267	148	2.150		
	Total	331.173	149			
body image dissatisfaction score	Between Groups	22448.167	1	22448.167	32.246	.000
	Within Groups	103030.693	148	696.153		
	Total	125478.860	149			

From the above table we can comprehend that there is a significant influence of gender on academic achievement and body image dissatisfaction score among adolescents. Brennan et.al (2010)’s statement also supported the findings. Body image dissatisfaction is more prevalent among women than men, but men may be becoming more negatively affected and women less.



Table 2: Summarized Results of One Way Anova of academic achievement and body image dissatisfaction score by BMI

		Sum of Squares	df	Mean Square	F	Sig.
academic achievement	Between Groups	47.320	3	15.773	8.113	.000
	Within Groups	283.853	146	1.944		
	Total	331.173	149			
body image dissatisfaction score	Between Groups	55407.317	3	18469.106	38.482	.000
	Within Groups	70071.543	146	479.942		
	Total	125478.860	149			

From the above table it can be said that there is a significant influence of BMI on academic achievement and body image dissatisfaction score among adolescents. It can be further said that there is a significant influence of obesity on academic achievement.

Table 3: Correlations between BMI, Academic Achievement & Body Image Dissatisfaction Score

	Body image Dissatisfaction Score	academic achievement	BMI
Body image Dissatisfaction Score	1	-.052	.502**
Academic achievement	-.052	1	-.079
BMI	.502**	-.079	1

**Correlation is significant at 0.01 level

From the above table it can be said that there is a significant negative relationship between obesity and academic achievement and significant positive correlation between obesity and body image dissatisfaction score.

7. Conclusion

The present investigation aims to find out the relationship between obesity, academic achievement and body image dissatisfaction among adolescents. A sample of 150 higher secondary school students participated in this study. There is significant difference in Body Image Dissatisfaction level among male and female students. There is significant difference in Academic achievement level between the two gender groups. Obesity has significant influence on Academic Achievement and Body Image Dissatisfaction of adolescents. There is positive correlation between Obesity and Body Image Dissatisfaction at 0.01 level of significance. It shows that if a person is obese then his/her Body Image Dissatisfaction is high. Obesity is negatively correlated with academic achievement. The correlation is non-significant.

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