RESEARCH ARTICLE

Received: October, 2010; Accepted: November, 2010

Parents attitudes on academic performance of Obese Teneagers

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ABSTRACT

The present study is based upon a sample of 160 teenager boys (N: 80) and girls (N: 80) in the age group of 13 to 19 years. The sample was drawn from purposelyselected private schools of Ludhiana city of Punjab (India). The boy's sample of 80 comprised of 40 obese and 40 normal weight (non-obese) teenagers. And similarly girl's sample of 80 was distributed equally over 40 obese and 40 non-obese teenagers. The parents of both obese as well as normal weight teenagers were classified into three attitude categories on the basis of their overall attitude scores toward obesity. Statistically significant differences were found among obese and normal weight teenagers in academic performance as per parents' attitude categories. It could be concluded that parents' attitude toward obesity has significant impact on the academic performance of both obese and normal weight teenagers.

KEY WORDS: Parents attitudes, Obese, Teenagers, Academic performance

Rashmi and Jaswal, Sushma (2010). Parents attitudes on academic performance of Obese Teneagers, *Adv. Res. J. Soc. Sci.*, 1 (2): 165-168.

Introduction

Good academic performance is directly related to university entrance and job opportunities and hence, it has always been a matter of concern for both parents as well as students (Kim et al., 2003). Thus, an understanding of the relation between health and academic performance of a student has significant implications. Adolescent's health is on the decline because of increased pressures of competition to do the best so as to get the best in the job market. There is a radical change in the life style of the adolescents. They spend less time on physical activity and more on the digital screen. The time spent in front of the digital screen is also used in munching their favourite fast food items along with fizzy drinks. This has resulted into the current increase in the prevalence of childhood and adolescent obesity. Obesity has become one of the most important public health concerns all over the world today.

Obesity rarely causes immediate, serious health consequences in childhood, however, it has been associated with many risk factors for cardiovascular diseases, hypertension, dislipidemia, and impaired glucose tolerance resulting in type 2 diabetes. More immediate consequences of obesity and overweight in children and adolescents are psychological and social. There are a

number of studies which indicate that overweight and obese children are more likely to have low self-esteem and that they have higher rates of anxiety disorders, depression and other psychopathology (Zametkin *et al.*, 2004).

There are number of studies showing inverse relationship between obesity and academic performance (Taras and Potts-Datema, 2005). In this context, it is worthwhile to investigate the parents' attitudes toward obesity, the most relevant components of social environment of teenagers in relation to their academic performance.

The present study has been conducted in Ludhiana city of the state of Punjab, that abounds with affluence and as a result fatness has become symbolic of belonging to a well-to-do family. To the best of our knowledge, no empirical study has ever been taken to find whether parents' attitudes toward obesity bear any relationship with academic performance of their obese *vis-avis* normal weight teenage children? Or is there any association between attitudes of parents toward obesity and academic performance of their teenage children?

Review of literature:

Datar et al. (2006) studied on 11, 192 children to

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examine the association between children's overweight status in kindergarten and their academic achievement in kindergarten and first grade in 1998. It was found that overweight children had significantly lower math and reading test score compared with non-overweight children in kindergarten. Mo-Suwan *et al.* (1999) did a study to examine the relationship between overweight status and academic performance in children from grades 3 to 6 and 7 to 9. They found that being overweight during adolescence (grade 7 to 9) was associated with poor school performance, whereas such an association did not exist in children (grade 3 to 6).

The objectives are as to investigate the impact of parental attitudes on academic performance of obese and normal teenagers.

METHODOLOGY

Adolescents (n: 160; 13 to 16 years in age) were drawn from ten schools located in the city of Ludhiana, Punjab. Height (cm) and weight (kg) of each selected subject were measured (using standard methods as given by Jelliffe, 1966) and BMI (Body Mass Index) was calculated for each one. On the basis of BMI for age and sex, the subjects were classified into 'normal-weight' and 'obese' categories. Adolescents showing BMI values 27.5 to 40 and above were classified as obese (n:80) and whose BMI ranged from 18.5 to 22.9 were classified as normal-weight (n:80). The obese and the normal-weight samples

were equally distributed over the two sexes. It was ascertained that all selected adolescents belonged to middle and upper-middle socio-economic strata as per socio-economic status scale by Bharadwaj (1971). Attitude of parents towards obesity was assessed by using a six point (strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree and strongly agree) rating scale (designed by the Rudd institute at Yale University, 2004) consisting of 20 items. It has both positive and negative worded items.

The parents of both obese as well as normal teenagers were classified into three attitude categories on the basis of their over-all attitude scores toward obesity. The three parents' attitude categories were Father and mother both have +ve attitude, One of the parent have –ve attitude, Father and mother both have -ve attitude.

The academic performance was assessed through the aggregate percentage of marks achieved by the adolescents in the last class examination (held two months earlier prior to this investigation) in the school.

OBSERVATIONS AND DISCUSSION

Table 1 shows that more number of respondents fell under the age group 17-19 years (62%). More of obese boys were in the age group 17-19 years (47.5%) where as more number of obese girls were in the age group 15-17 years (52.5%).

Educational qualification of fathers of boys was mostly

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Sr. No.	Variable/ category	Obese boys (n=40)	Normal boys (n=40)	Obese girls (n=40)	Normal girls (n=40)				
1.	Age	n (%)	n (%)	n (%)	n (%)				
	13-15	7 (17.50)	13 (32.50)	6 (15.00)	14 (35.00)				
	15-17	14 (35.00)	11 (27.50)	21 (52.50)	12 (30.00)				
	17-19	19 (47.50)	16 (40.00)	13 (32.50)	14 (35.00)				
2.	Father's educational qualificat	tion							
	Under matric	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)				
	Matric	3 (7.50)	3 (7.50)	4 (10.00)	7 (17.50)				
	10+2	9 (22.50)	12 (30.00)	6 (15.00)	13 (32.50)				
	Graduation	9 (22.50)	11 (27.50)	15 (37.50)	10 (25.00)				
	Post graduation	19 (47.50)	14 (35.00)	15 (37.50)	10 (25.00)				
3.	Mother's educational qualification								
	Under matric	0 (0.00)	1 (2.50)	1 (2.50)	0 (0.00)				
	Matric	9 (22.50)	11 (27.50)	6 (15.00)	13 (32.50)				
	10+2	10 (25.00)	7 (17.50)	9 (22.50)	11 (27.50)				
	Graduation	9 (22.50)	15 (37.50)	16 (40.00)	11 (27.50)				
	Post graduation	12 (30.00)	6 (15.00)	8 (20.00)	5 (12.50)				
4.	Average body weight (kg)	77.78±13.97	53.00±7.33	71.29±5.35	49.80±4.50				
5.	Average height (cm)	161.23±14.25	163.60±10.78	157.85±6.88	158.58±6.79				
6.	Average BMI (kg/m ²)	29.73±3.02	19.96±1.28	28.60±1.34	19.95±1.15				

Table 2: Attitude of parents towards obesity and its impact on academic performance of their obese children (n=80)

Sr. No.	Parents' attitude category	Frequency	%	Mean and SD		
1.	Father and mother both have +ve attitude	34	42.50	54.59±5.13		
2.	One of the parent have -ve attitude	28	35.00	59.46±6.34		
3.	Father and mother both have -ve attitude	18	22.50	58.08±3.65		
C.D.(P=0.0	05) for No. 1 and $2 = 3.014$	F ratio	o	df		
C.D.(P=0.0	05) for No. 1 and $3 = 2.639$	7.00		2,77		
C.D.(P=0.0	05) for No. 2 and $3 = 3.124$	7.20*	7.20*			

^{*} indicates significance of value at P=0.05

Table 3: Attitude of parents towards obesity and its impact on academic performance of their normal children (n=80)

Sr. No.	Parents' attitude category	Frequency	%	Mean and SD		
1.	Father and mother both have +ve attitude	46	57.50	60.16±6.29		
2.	One of the parent have –ve attitude	6	7.50	60.21±5.54		
3.	Father and mother both have -ve attitude	28	35.00	66.78±6.34		
C.D.(P=0.0	(25) for No. 1 and $(2 = 5.122)$	F rati	df			
C.D.(P=0.0	(35) for No. 1 and $(3 = 2.828)$	2.44	2.77			
C.D.(P=0.0	(35) for No. 2 and $(3 = 5.308)$	3.44	r	2,77		

^{*} indicates significance of value at P=0.05

post graduation (obese= 47.5%, normal= 35%) followed by graduation and senior secondary. Fathers of obese girls were mostly graduate (37.5%) or post graduate (37.5%) and that of normal girls were senior secondary pass (32.5%) followed by graduation (25%) and post graduation (25%). None of the fathers was reported to be under matric. More of the mothers were matric, senior secondary or graduate. Only two mothers in the sample were under matric. Obese boys were found slightly heavier than obese girls when compared to the normal boys and girls, respectively.

Average height of normal boys and girls was slightly higher than that of obese boys and girls, respectively. Obese respondents had higher BMI, on an average, as compared to the normal respondents.

Table 2 shows that the academic performance of obese teenagers was rather lowest whose both parents showed positive attitude towards obesity. Mean academic scores were slightly better for the obese teenagers where one of the parents showed negative attitude towards obesity. The mean academic scores were found to be the highest for those obese teenagers where both parents were critical of obesity which is showed negative attitude towards obesity. Analysis of variance further shows that academic scores significantly differed across the three parent's attitude categories.

Table 3 similarly shows better academic performance of normal teenagers whose parents observed tighter control towards obesity and lower achievement for those parents who have relaxed attitude towards obesity. Table 3 further depicts that there was significant difference in attitude of parents towards obesity on academic

performance of their normal weight teenage children for the three attitude categories of the parent *i.e.* fathers and mothers both have positive attitude, one of the parent have negative attitude and father and mother both have negative attitude. The analysis of variance for academic performance across parents' attitude categories for obese and normal weight teenagers showed statistically significant differences for all comparisons (F ratio being 5.25).

Conclusion:

The above results subscribe to two inferences, first that parents' attitude toward obesity was associated with the academic performance of teenagers irrespective of their weight status and secondly normal weight teenager's academic performance was significantly better than their obese counterparts across all categories of parents' attitude toward obesity. These results appeared to imply that parents need to play an active role in dealing with obesity of their teenage child which could stimulate their better academic performance as passive and neutral roles which were significantly less stimulating for the obese as well as normal weight teenagers for their academic performance.

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