

Weight Perceptions, Weight Control Practices and Prevalence of Obesity among Adolescent Girls.

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Research Article

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ABSTRACT

Adolescents becoming over conscious of their body image and exhibiting strange eating behaviors is no longer a myth but a harsh reality. False preoccupation about the body has become a major concern since it has led to several unhealthy dietary practices. It has been reported that adolescent girls feeling overweight were more likely to engage in unhealthy weight control practices than those who reported feeling that they were of normal weight or underweight. A cross sectional study was conducted among 150 adolescent girls aged 17 -19 years at polytechnic college of Bellary. A pretested semi structured questionnaire was used as a study tool. Anthropometric measurements like weight and height were recorded using standard techniques. Data was entered in Microsoft excel and was analysed using SPSS. The prevalence of overweight/obesity was 22%. 80% of subjects had false perception about their body weight. There was a distinct difference between actual and perceived weight. Body weight perception and dissatisfaction are correlates for weight control practices. Overweight adolescents should be better informed and empowered to follow recommended weight loss strategies.

INTRODUCTION

Modern society encourages the search for the perfect body. Today's aesthetic ideal is a thin body, and now superimposed on this ideal is the need to be physically fit. This drive for fitness is mainly prevalent in adolescents and young adults; a high proportion of adolescents are trying to lose or gain weight or change their body proportion. Maturational physical changes place a heavier burden on female adolescents, who encounter thinness as a cultural standard of beauty for women.

Females, at a very young age, are concerned about body weight and place high importance on appearance, which is dramatically influenced by the media. A study by Mooney et al; in Ireland found that adolescent females are very conscious of their body image [1].

Globally, non-communicable diseases are increasingly recognized as a major cause of morbidity and mortality. The countries of the South-East Asia region are facing a double burden, with a heavy load of infectious diseases and an increasing burden due to non-communicable diseases [2]. The increasing burden of non-communicable diseases, particularly in developing countries including India, threatens to overwhelm already stretched health services. Several diseases come under the umbrella of non-communicable diseases and more common cause is obesity. The problem of obesity is confined not only to adults but also to children and adolescents. Various studies also indicate that the prevalence of overweight and obesity among children of all ages is increasing in developing countries in the past few decades [3,4].

Obesity is both an individual clinical condition and is increasingly viewed as a public health problem. The false perception about obesity may lead adolescents to adopt unhealthy practices. Studies have shown that underweight adolescents perceived themselves as obese and indulge in unhealthy weight control practices.

The persistent emphasis of our society on thinness and its characterization of obesity as unacceptable may predispose adolescents, especially young girls, towards distorted body image perception and induce dietary behavior that may prove deleterious to their health.

Unhealthy dieting behavior and food habits such as omitting breakfast and frequent snacking are already prevalent among young adolescents, even among those who are not overweight. So understanding of body image perception, weight concerns, eating attitudes and dietary behavior of adolescent girls is becoming necessary.

Objectives

- To study the prevalence of obesity among girls aged 17 – 19 yrs studying in Institute of polytechnic college
- To obtain an insight on weight perceptions and compare actual with perceived weight
- To know the perceptions and practices about weight and weight control.

MAERIALS AND METHODS

The study was conducted at Institute of polytechnic college which is situated in Bellary, Karnataka. This study was carried out during August 2013 to October 2013.

The study was conducted among 17 – 19 years old girls studying in first and second year. Totally 150 girls participated in this study.

Informed written consent was obtained from all the students who participated in the study. Confidentiality of the data collected was observed.

A pre tested structured questionnaire was distributed among the participants and they were asked to fill the questionnaire. Anthropometric measures were taken. Weight was measured to the nearest 1kg with subjects within their attire with emptied pockets and without foot wears. A calibrated weighing machine with weighing capacity of 130 kg was used. Height was measured without foot wears to the nearest 1mm by means of a non stretchable polyvinyl chloride tape which was attached to the wall. The subject was asked to keep the heels, buttocks, shoulders and occiput in close contact with the wall adjacent to the measuring tape.

Body mass Index was used as an index of adiposity which is a simple and widely used.

Measurement of Obesity and overweight is based on the standard Center for Chronic Disease prevention charts for children; CDC defines as Overweight if the BMI is higher than the 85th percentile and Obese if the BMI is higher than 95th percentile.

RESULTS

There were 150 adolescent girls in the age group of 17 – 19 years studying in first year. More than 50% of girls belong to age group 19 (Table.1)

Table.1: Age wise distribution of study subjects

Age	N	%
17yrs	06	4
18yrs	57	38
19yrs	87	58
Total	150	100

The prevalence of overweight and obesity was 17.33% and 4.66% respectively. Even though it is an affluent group, 46% of girls were underweight (Table.2)

Table 2: Distribution of subjects based on Body mass index

Category	N	%
Under weight	69	46
Normal weight	48	32
Over weight	26	17.4
Obesity	07	04.6
Total	150	100

About body weight perception, 88.6% of girls knew their body weight whereas 11.6% of girls did not know their body weight (Table.3). Among girls knowing their body weight, 44.3% of girls over estimated their weight and 35.3% of girls under estimated their weight (Table.4). It was found statistically significant.

Among girls who over estimated their weight, 54.2% were actually underweight and 36.1% girls were actually obese among girls who underestimated their weight (Table.4)

Table 3: Distribution of subjects based on – whether they know their body weight

Know their Body weight	Over Weight/ Obesity	Normal Weight	Under weight	Total
Yes	30 (22.5 %)	41 (30.8 %)	62 (46.6 %)	133 (88.6 %)
No	03 (17.6 %)	07 (41.1 %)	07 (41.7 %)	17 (11.3 %)
Total	33	48	69	150 (100 %)

Table 4: Distribution of subjects based on their body weight perception

Weight perception	Over Weight/ Obesity	Normal Weight	Under weight	Total
Correct	6 (22.2 %)	6 (22.2 %)	15 (55.5 %)	27 (20.3 %)
Under estimation	17 (36.1 %)	15 (31.9 %)	15 (31.9 %)	47 (35.3 %)
Over estimation	7 (11.8 %)	20 (33.8 %)	32 (54.2 %)	59 (44.3 %)
Total	30	41	62	133 (100 %)

Chi square – 104.6 df – 4 p – 0.00

About 32% and 24% of girls perceived themselves as heavier and lighter for their age and height respectively (Table.5). But among those who perceived themselves as heavier, 37.5% were actually underweight for their age and height. The results were found statistically significant (Table.5).

Table 5: Distribution of study subjects based on their body image perception

Body image perception	Over Weight/ Obesity	Normal Weight	Under weight	Total
Under weight	10 (27.7 %)	10 (27.7 %)	16 (44.4 %)	36 (24 %)
Normal weight	13 (19.6 %)	18 (27.2 %)	35 (53 %)	66 (44 %)
Over weight	10 (20.8 %)	20 (41.6 %)	18 (37.5 %)	48 (32 %)
Total	33	48	69	150 (100 %)

Chi square – 133.4 df – 3 p – 0.00

30.6% of the girls had desire to lose weight (Table.6) and 45.6% of girls among who had desire to lose weight were adopting Dieting method for losing weight (Table.7)

Table 6: Distribution of study subjects based on their desire to lose weight

Desire to lose weight	Over Weight/ Obesity	Normal Weight	Under weight	Total
Yes	20 (43.4 %)	18 (39.1 %)	8 (17.3 %)	46 (30.6 %)
No	13 (12.5 %)	30 (28.8 %)	61 (58.6 %)	104 (69.3 %)
Total	33	48	69	150 (100 %)

Table 7: Distribution of study subjects based on the practices adopted to lose weight

Practices	Overweight/ obesity	Normal weight	Under weight	Total
Dieting	8 (38.0 %)	8 (38.0 %)	5 (23.8 %)	21 (45.6 %)
Exercise	8 (42.1 %)	8 (42.1 %)	3 (15.7 %)	19 (41.3 %)
Dieting & Exercise	3 (60 %)	2 (40 %)	0 (0 %)	05 (10.8 %)
Medication	0	0	0	00 (00 %)
Vomiting	1 (100%)	0	0	01 (2.1 %)
Total	20	18	8	46 (100 %)

30% of girls had desire to gain weight and 36% of girls had desire to lose weight. 41% of normal weight and 20% of underweight girls had desire to become little lighter (Table.8)

Table 8: Distribution of study subjects based on their desired weight

Desired weight	Overweight/ obesity	Normal weight	Under weight	Total
Little heavier	5 (11.1 %)	10 (22.2 %)	30(66.6 %)	45 (30 %)
Present weight	3 (9 %)	5 (15.1 %)	25(75.7 %)	33 (22 %)
Little lighter	20 (37 %)	20 (37 %)	14(25.9 %)	54 (36 %)
Lot lighter	5 (27.7 %)	13 (72.2 %)	0	18 (12 %)
Total	33	48	69	150 (100 %)

DISCUSSION

In our study it is well evident that majority (46%) of the study population are underweight girls and only very few belong to the obese group (4.6%).

Concerning weight perception, more than 80% of subjects knew their body weight and among girls knew their body weight, 44.3% of girls over estimated their weight and 35.3% of girls under estimated their weight. Davies and Furnham ^[5] concluded in a study of British adolescent females that, while less than 4% of the samples were actually over weight, over 40 % considered themselves to be overweight. Maloney ^[6] also reported in his study that 75% of the girls he surveyed perceived themselves to be overweight.

Our study also showed that 30.6% of girls desired to lose weight but among these only 40% of the girls adopt exercise as their practice and 45% of girls were dieting.

Studies conducted by Ash and McClelland ^[7] have reported that a vast majority of subjects under their study listed a desirable weight loss. Sztainer and Hannan ^[8] have also reported that half of the girls under their study were trying to lose weight.

It is suggested that self perception of body weight more, so than objective weight status, was predictive of weight loss behavior and also negative psychological outcomes associated with poor body weight image. As a result self perception of weight may be an important point of focus for the design and implementation of clinical and public health initiatives targeted at this adolescent population.

CONCLUSION

It was found that most of the girls come under the underweight category. More than 70% of the girls were having false perceptions of their weights, among which most of the underweight girls have overestimated their weight and most of the obese girls have underestimated their weight. Because of the peer group influence, media influence, lack of proper knowledge, and unawareness about their health, most of the girls resort to unhealthy eating habits which may in the near future lead to hazardous effects.

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