P: ISSN NO.: 2321-290X RNI : UPBIL/2013/55327 VOL-4* ISSUE-9* May- 2017
E: ISSN NO.: 2349-980X **Shrinkhla Ek Shodhparak Vaicharik Patrika**

To Assess the Problem of Obesity Among Adolescents

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Abstract

Rising prevalence of overweight and obesity & its health consequences has prompted the WHO to identify it as one today's most important public health problem.

One in every two adults in the United States is overweight & the prevalence of obesity increasing all over the world.

Obesity is a state in which the calories intake is more than the expenditure of energy.

Objectives were to assess the problem of obesity among adolescence with the help of anthropometric measurement to measure height, weight, BMI, waist to hip ratio.

Keywords: Obesity, BMI, Waist to Hip Ratio.

Introduction

Obesity may be defined as a state in which body weight is excessive owing to accumulation of adipose tissue associated with its re-significant comprises of health and increased risk's to life or we can say obesity is an abnormal growth of adipose tissue.

There are two types of obesity, one is due to enlargement of fat cell, size called hypertrophy obesity. Another one is increasing number of fat cells called hyperplastic obesity or it may be a combination of both.

Aim of the Study

The study has been undertaken with the following objectives.

1. To assess the problem of obesity among adolescents.
2. To assess the problem of obesity among adolescents with the help of anthropometric measurements.

Materials and Methods

Selection of Subjects

The study was undertaken to assess the increasing consumption of fast food & junk food among urban adolescents in the age group 13-17 years. The data regarding the study was collected from both the sources viz. primary and secondary. Collection of primary data was carried out by school going girls and boys through anthropometric measurements. Collection of secondary data was carried out by information obtained from various books,journals,newspapers,websitesand university libraries since the present study is a pilot study a purposive sampling was adopted and only those adolescents were considered as respondents who showed willingness to be a parts of the present study. A sample of 100 adolescents (including boys and girls both) aged between 13-17 years were selected by purposive sampling methods from high and low income groups students from Bhopal city.

Data Collection

The age of adolescents between age group of 13-17years was ascertained by questioning them age in completed years was taken for analysis.

Researcher will select data from different schools. To assess prevalence of obesity in school going adolescents, researcher will screen them with the help of BMI & anthropometric measurements. Here data will be collected from sample units on the basis of:

1. Anthropometric measurements
2. BMI

Classification on the basis of variables

1. Independent- age, sex, type of family.
2. Dependent- height, weight.

Results

Variable: Age (Independent variables)

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Table 1

Age Groups (in Years)	Boys				Girls			
	Group A	Percentage %	Group B	Percentage %	Group A	Percentage %	Group B	Percentage %
13-14	6	12%	8	16%	5	10%	11	22%
14-15	8	16%	7	14%	5	10%	8	16%
15-16	14	28%	6	12%	1	2%	6	12%
16-17	9	18%	3	6%	2	4%	1	2%
Total	37	74%	24	48%	13	26%	26	52%

Figure 1 Age Wise Distribution of Respondents

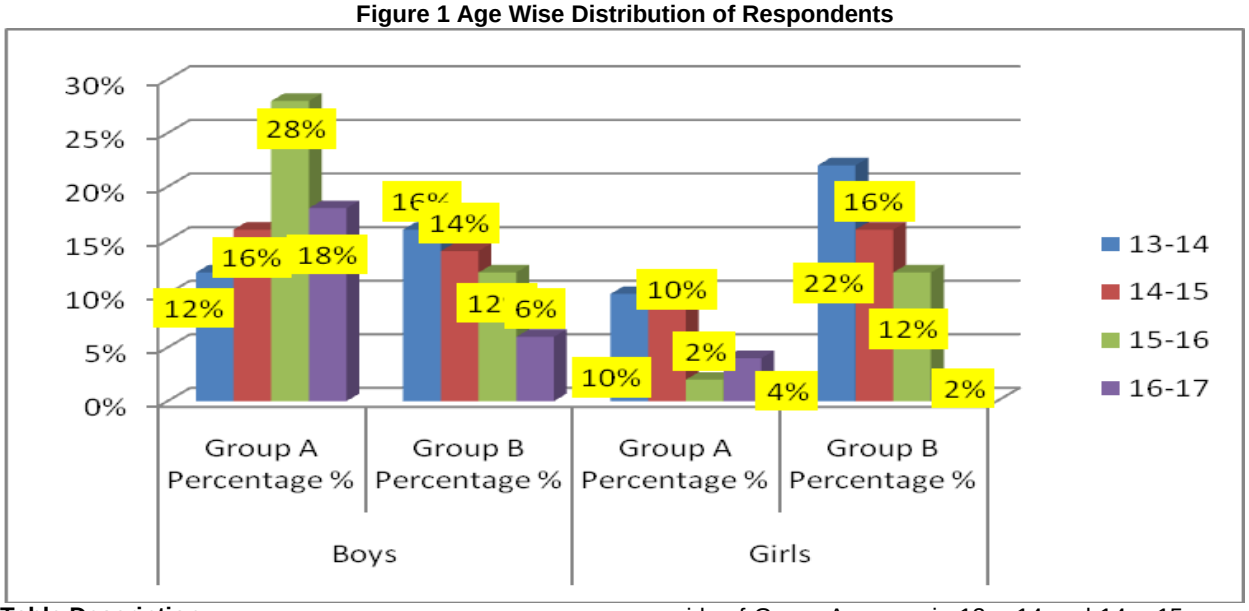

Table Description

Table shows the age wise distribution of adolescents. Maximum of 28% boys of age group 15 – 16 belongs to Group A and maximum of 16 % boys of age group 13 – 14 years belongs to Group B whereas minimum of 12 % of age group 13 – 14 belong to Group A and minimum of 6% of age group 16 – 17 belongs to Group B. Similarly maximum, 10% girls of Group A comes in 13 – 14 and 14 – 15 years age group and maximum 22% of 13 – 14 years age group belongs to Group B. On the other hand minimum 2% girls of 15 -16 belongs to Group A and minimum 2% of 16 -17 years age group were studied in Group B.

Abdominal Obesity Assessed By Measuring Waist-Hip Ratio
Table 2

Source Name	Boys				Girls			
	Nor	Percentage %	Incr.	Percentage %	Nor	Percentage %	Incr.	Percentage %
Group A	26	70	11	29.7	6	46.2	7	53.8
Group B	24	100	Nil	-	24	92.3	2	7.7
Total	50		11	22	30		9	30

Source: WHO, 1996

Table Description

Table shows 53.8% girls of Group A have increased waist to hip ratio as compared to 29.7 % boys of the same group. On the other hand, only 7.7% girls of Group B have increased ratio with 0 % boys of the same group.

Group A	Group B
Z = 1.98	Z = 6.52
P = 0.10	P = 0.01
SIGNIFICANT	HIGHLY SIGNIFICANT

Summary and Conclusion

As it is mentioned above this research work was conducted in two schools which were belonging in two different socio economic groups. In this study obesity was assessed in adolescent, so it is necessary that adolescent problem should be observed in all the economic groups. Along with this nowadays children don't play outdoor games especially adolescent aged children.

It is found that 50-70 % are pre obese and 10- 30 % are obese (in different obesity grade) and

generally belongs to upper middle class families. Ratio of obesity in adolescent girls is higher than boys. It is only 15% girls are of normal weight. 70% were pre obese and 15% falls in different obesity grades according to BMI measures.

The "waist to hip ratio" was another measure to assess the obesity. In this study and finding says that 30% of boys and 70% of girls from Source A were increased abdominal obesity. The adolescent who fall in obesity grades were vegetarian or non-vegetarian. There are 70% students from non-vegetarian groups who fall in pre obese category. This is also a reason of obesity. It shows than non-vegetarian food gives the excess calories in food.

Obesity is not found in adolescents of lower class and lower middle class families. In facts adolescents from this class are not of standard height and weight. Around 60-65% students were underweight. Only 35-40% were having normal weight.

1. Obesity was found among adolescents if high socio economic group and only 54% boys and 69.2% girls were pre obese.
2. Adolescent girls (69.2%) are more prone to obesity.

References

1. *Clin J. Prevalence of Overweight and Obesity using various BMI for Age Standards among younger adolescent in Kuala Lumpur Asia Pac. Nutrition 2002, 11, 741.*
2. *French , S.A. Fast Food Restaurants used among adolescents associations with nutrient intake, food choices and behavioral psychological variables ; Int J. Obese, Related Metabolism Disorder 2001, 25, 1823 – 1833.*
3. *Hill J.O. , J. Mutr Dietary fat and Obesity, 2000, 130. 284 – 288WHO 1995, Tech. Rep. Ser. No. 854.*
4. *INRC Lyon 2002 (WHO 2002). International ageing for the research on Cancer prevention – weight control and physical activity.*
5. *K Park 18 th Ed. 316 – 317, 2002.*
6. *K Park 19 th Ed. 332 – 333, 2002WHO 2000, Tech, Rep. Ser. No. 840.*
7. *Kapil U. Prevalence of Obesity amongst Affluen*