



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2019; 5(11): 139-140
www.allresearchjournal.com
Received: 04-09-2019
Accepted: 06-10-2019

Dr. Seema Ashraf
Medical officer RBSK SDH
Hazaratbal Srinagar Kashmir,
India

Dr. Sumyyah Hasina Sana
Research Scholar RRIUM
Srinagar Kashmir, India

A study of body mass index among students in Pvt. Schools

Dr. Seema Ashraf and Dr. Sumyyah Hasina Sana

Abstract

School based BMI measurement has attracted attention across the nation as a potential approach to address malnutrition among youth^[1]. Malnutrition both under as well as over is serious public health problem related to increased risk of morbidity, mortality and overall development of children. Malnutrition is widely recognized as a major health problem in developing countries. Growing children's are more vulnerable to its consequences. Childhood malnutrition can be evaluated anthropometrically which is among the cheapest method available.

Aim: This is study prevalence of obesity, overweight, normal weight and under weight by using body mass index in students among two Pvt. Schools.

Material and Methods: Among 250 students height and weight measurements were taken. Body mass index calculated and categorized into obese, overweight, normal weight and underweight.

Results: Among 250 students 0.4% comes under obese category, 2% under overweight category, 27.6% under healthy weight category and 70% under "under weight category".

Conclusion: Students should be aware of their weight (both overweight as well as under weight) and they should adjust their category into "normal weight" by changing their food habits and physical activity (life style).

Keywords: Height, weight, body mass index, obese underweight, normal weight, over weight

Introduction

Now a days obesity and underweight became common in all age groups of society as a result of less physical activity, sedentary life style, and overeating. This lead to several health problems which are common causes of malnutrition, anemia, mortality and morbidity. So it is necessary to create awareness among students right from student period. They should be aware of their height weight and into which category they come (obesity, overweight, normal weight, underweight) if they change their attitude towards body weight and maintain their body weight properly it will be easy for them to maintain same pattern in future for effective and healthy living. BMI can be used as a simple method to assess body weight of individual. BMI provides a reliable indicator of body fat percentage/body fatness for most of people.

Material and methods

This is prospective cross sectional study conducted at PVT schools (elites co ed institute nishat and firdous educational institute crossing SGR Kashmir). 250 students between age group of 6 to 14yrs were selected randomly. The participants were informed about aim of study. The study was done over 2 weeks. The general distribution were taken, height and weight were taken and BMI calculated using formula mass (weight in KGS/height² in meters. BMI or quetelet index is a measure of relative size based on mass and height of an individual. Adolphe quetelet^[2] defined BMI for a person as their body mass divided by square of their height. BMI value is given in Units kg/m². It is a ratio of weight to squared height students were categorized accordingly to BMI into underweight, overweight, obese and normal weight. BMI is calculated quicky and without expensive equipments. But BMI categories do not take into account some factors like frame size and muscularity^[3].

BMI categories^[4].

Underweight =<18.5

Normal weight =18.5-24.9

Over weight=25-29.9

Correspondence Author:
Dr. Seema Ashraf
Medical officer RBSK SDH
Hazaratbal Srinagar Kashmir,
India

Obesity=BMI of 30 or greater.

International variations: these recommended distinctions along linear scale may vary from time to time and country to country, making global, longitudinal surveys problematic.

For example Japan society for the study of BMI (2000) ^[5]

| Category | BMI range- kg/m ² |
|-----------------|------------------------------|
| Low | 18.5 and below |
| Normal | 18.5 - 25.0 |
| Obese (level 1) | 25.0-30.0 |
| Obese(level 2) | 30.0-35.0 |
| Obese(level 3) | 35.0 - 40.0 |
| Obese (level 4) | 40.0 and above |

Results

Table 1

| Age | Male | Female | Underweight |
|----------|------|--------|-------------|
| 6-14 yrs | 85 | 90 | 175 (70%) |

Table 2

| Age | Male | Female | Normal weight |
|--------|------|--------|---------------|
| 6-14yr | 29 | 40 | 69(27.6%) |

Table 3

| Age | Male | Female | Overweight |
|---------|------|--------|------------|
| 6-14yrs | 3 | 2 | 5(2%) |

Table 4

| Age | Male | Female | Obese |
|---------|------|--------|---------|
| 6-14yrs | 1 | 0 | 1(0.4%) |

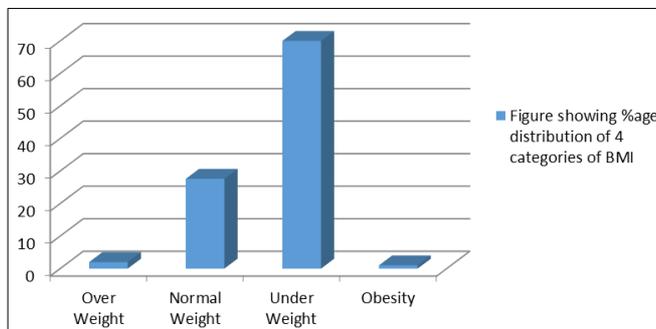


Fig 1: Showing %age distribution of 4 categories of BMI

The formula for BMI is mass kg/height m²

Discussion

In our study total number of females were 132 and total number of males were 118.all come into age group of 6-14yrs.In table ^[1]. 85 no. Of male and 90 no. Of females come into underweight weight category and their total percentage is 70%. In table ^[2]. 29 no. Of male and 40. No. Of females come into normal weight category and their percentage is 27.6%.in table ^[3]. 3 no. Of male and 2 no. Of females come into over weight category and their percentage is 2% and in table 4. Just 1 male candidate and zero females appear and they fall into obesity category and their percentage is just 0.4% so as per data our main focus goes towards underweight category. All underweight students were instructed to improve diet as malnutrition may lead to many complications like hypoglycemia, giddiness,

drowsiness, irritability and loss of memory. They may not be able to concentrate into class room and may not read properly. Finally they may suffer from hypoproteinemia and anemia and other problems like anxiety and depression if they won't improve their quality and quantity of dietary intake.

Conclusion

According to proverb “prevention is better than cure”. it is better to rectify weight abnormalities rather than to treat complications, and resulting diseases of overweight as well as underweight.

Acknowledgment

We are sincerely thankful to principal of firdous educational institute crossing Srinagar Kashmir and elites co edu. Srinagar for their cooperation and support.

References

1. Physical Status: The Use and Interpretation of Anthropometry. Who Technical Report Series (Geneva, Switzerland: Who) 854:9.1995pmid 8594834.
2. A Study on the assessment of BMI and its association with IQ among rural primary school children in west Bengal, India Dr. Debanth Chaudary. 2015; 7:23.
3. Eknoyan Garabed. Adolphe Quetelet. (1796-1874) - The Average Man and Indices of Obesity. Nephrology Dialysis Transplantation. 2007; 23(1):47-51. doi:10.1093/ndt/gfm517.pmid 17890752
4. Jeukendropa Gleeson M. Sports Nutrition Human Kinetics: An Introduction to Energy Production and Performance, 2005.
5. BMI classification. Global database on body mass index.who.2006.retrieved, 2012.
6. Accessing your weight and health risk: National heart, lung and blood institute. Retrieved 19, 2014.