

The Perception of Weight and BMI among the Health & Physical Education Students of Karachi

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Abstract— **INTRODUCTION:** The perceived weight may tend to be inaccurate when compared to BMI. The problem may occur when the reported height and weight are not same as measured height and weight. So when the BMI is calculated from the self-reported reading of weight & height the result may show inaccurate reading as compared to the actual one. **MATERIAL AND METHODS:** It was a cross sectional survey study. Data was collected from Health & Physical Education students of Karachi. The duration of this study was 6 months. A self-administered questionnaire was used for data collection. The data was analyzed by SPSS version 20.0. **RESULT:** 88 students had perceived that their weight was normal but in actual result 62 students had normal weight according to the BMI calculations and 11 students were lying in underweight. 6 students had perceived that they are underweight but in actual result 3 of them were lying in underweight category and 3 of them were normal weight. 4 students had perceived that they were overweight but in actual result 4 of them were normal weight and 2 of them were lying in overweight scale. **CONCLUSION:** The results of this study leads to the conclusion that majority of students had correctly perceived their weight whereas few had perceived it incorrectly.

Index Terms— Weight, BMI, Health & Physical Education, students, perception.

1 INTRODUCTION

The nutritional habits can be judged by the weight perceived by an individual. But the problem arises when an individual who has weight below normal or at normal level and perceives himself/herself as overweight. This may lead to Anorexia Nervosa [1]. Whereas if the overweight individual perceived himself/herself as normal weight he/she would not be found to be involved in any weight controlling activity. Those individuals who perceive themselves overweight would be found to be involved in weight loss activities. [2] This perception regarding one's weight is associated with the person's dietary habits and behaviors. [3] The perceived weight may tend to be inaccurate when compared to BMI [4], [5]. The problem may occur when the reported height and weight are not same as measured height and weight. [1] So when the BMI is calculated from the self-reported reading of weight & height the result may show inaccurate reading as compared to the actual one. In adolescents the perceived weight when was compared with their actual weight there was a difference seen which indicated lack of knowledge. [6]

Higher percentages of females consider themselves as overweighted. The actually overweight and obese were found to be less active and far less participating in physical activity as many of the actually overweight and obese were failed to perceived themselves as obese or overweighted. [7], [8] The body image & satisfaction from this image play very important role in leading a good or bad dietary behavior. The weight perceived leads to dissatisfaction from the body image and this pursues the individual to acquire certain dietary behavior that may prove to be hazardous for their health [9].

The weight concerns and dietary behaviors of the girls were found to be influenced by different variables. The girls who were dieting were found to be dissatisfied from their body images. [10] There is an association between the perception of

weight and weight controlling behaviors among the females of adolescent age group. [11] Females tend to have higher BMI as compared to their perception whereas the males have shown to have lower BMI than their perception. [12] This difference b/w the actual weight & perceived weight was due to lack of awareness. [13] Along with this the dietary habits and behaviors of the individuals were found to be associated with the perceived weight rather than the actual weight of the adolescent. [14]

A positive association was found between the image of body and BMI. Students were not well aware of this fact. [15] There is a misconception regarding actual weight and perceived weight. [16] Dissatisfaction from the body image was much common among the females. There is an association found between the satisfaction level of female from their weight and body image to the dieting behaviors. The body image may also prove to be encouraging factor to achieve an ideal figure and on weight. [17]

The perception of an individual regarding his/her weight play an important role in developing the behavior related to the intentions to reduce weight. Those participants who considered themselves over weighted were found to have tried to lose their weight and improve their dietary habits but those who were found to be normal weighted actually but they believed themselves overweighted were found to be adopted the habits that could lead to health hazardous weight loss. It is found that correct perception of weight was very necessary so as to involve the individual in healthy dietary habits. [18], [19] BMI and perception regarding the weight of individual play an important role in the behaviors adopted to cut down weight. [20]

The perception of an individual regarding their weight may influence their intentions towards weight controlling strategies. This perception of weight in normal weighted individual had

led to some unhealthy and hazardous strategies for weight reduction. [21] More girls were found to be dissatisfied from their weight and image of body as compared to boys. There were one third of the participants who had not perceived their weight correctly. [22]

The objective of this study was to evaluate the perception of the Health & Physical Education students about their weight.

2 MATERIAL AND METHODS

It was a cross sectional survey study. Data was collected from Health & Physical Education of Karachi. The duration of this study was 6 months. The sample size was 100 Health & Physical Education male and female students. Selection of sample was on convenient sampling. Students other than Health & Physical Education were excluded. A self-administered questionnaire was used for data collection. The Asian cut off value for BMI was used as reference point. [23] The analysis was done using SPSS version 20 software. The frequency and percentage were calculated through a test, descriptive statistics. Data was coded and confidentiality of the participants was maintained.

3 RESULTS

The response rate of this study was 100%. The results show that the minimum age of participants was 18 years and maximum age of participants was 24 years. The mean age of the participants was 20.88 years. Most of the participants were female i.e. 70% and 30% were male. 81% of participants had weight between 41kg to 60 kg, 17% participants' weight was in between 61 kg to 80 kg and 2% participants had weight in the range of 81 Kg to 100 Kg. 39% respondents had height between 1.60 m to 1.69 m, 35% participants had between 1.50 m to 1.59 m height, 16% in range between 1.70 to 1.79m, 6% were having height between 1.80 m to 1.89 m and only 4% were having height between 1.40 m to 1.49 m.

Table 1: Perceived weight

	Frequency	Percent
Underweight	6	6.0
Normal weight	88	88.0
Overweight	6	6.0
Total	100	100.0

Table 2: Actually weight

	Frequency	Percent
Underweight	14	14.0
Normal weight	69	69.0
Overweight	17	17.0
Total	100	100.0

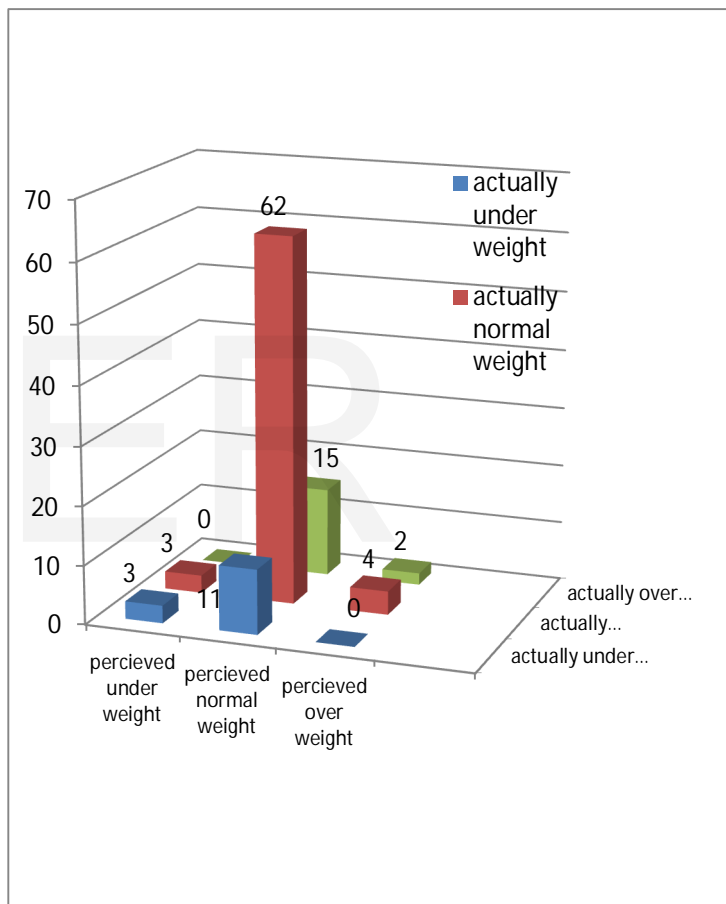


Figure 1: Comparison of perceived weight and actual weight

3 DISCUSSION

The results that we got from this study show that the majority of students have the idea of their weight. They have the clear cut knowledge of underweight, normal weight over weight and obese. Along with this they have a sound knowledge about BMI too. This may be because they are related to a field where these concepts are frequently studied and used.

In 1986 a study by Desman SM et al showed that the adolescents perceived their weight differently from their actual weight [1]. The perception of one's weight leads to a certain dietary behavior [10] that may be hazardous if the person is actually under weighted. [9]

The adolescents underestimate as well overestimate their weights. Among those who under estimated majority were found to be over weighted and among those who overestimated majority were found to be normal weighted. [8] Parents play an important role in the formation of the concepts of overweight or underweight. Besides this the food that the child is compelled to have by the parents may also lead the child towards over weighted, normal weighted or under weighted. [24] The dietary behaviors are fully found to be influenced and greatly affected by the individual's perception regarding the weight. It is being proved that those who perceive themselves over weighted have dissatisfaction regarding their body images. [10], [25] The weight controlling behaviors and perception of weight has been proved to be associated. [11] Besides this when perception of weight is compared to the gender it was found that majority of females consider themselves overweighted. [7] When BMI was compared to gender perception of weight it was found that females had higher BMI than their perceived BMI whereas males have perceived much higher BMI than their actual BMI. [12]

Satisfaction from body image leads to build confidence in an individual. Furthermore it leads to the selection of what we eat i.e. it influences the dietary intake. If an individual is not satisfied from his/her bodily image he would be formed to be engage in the dietary habits that may be hazardous for them. [9]

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4 CONCLUSION

The results of this study leads to the conclusion that majority of students i.e. 67% had correctly perceived their weight whereas only 33% had perceived it incorrectly.

Although majority had perceived their weight correctly, we cannot forget the ones who have not, for them it is necessary that awareness programs should be held so as the perception of those can be corrected and help them lead a better healthy life.

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