

# Comparison Between Body Image Perception and Actual BMI among Adolescents- A Survey

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## Abstract:

### **Aim:**

To compare and contrast between body image perception and actual BMI among adolescents.

### **Objective:**

To determine the body image perception among adolescents and compare it with their actual Body Mass Index (BMI).

### **Background:**

Physical appearance and body image has a great impact on perceived health. Satisfaction with body shape and overall appearance strongly depends on body mass index. With increasing thoughts of becoming thin or a bit fat, the perception of body images have gained importance. The perceived body images also play a pivotal role in determining the nutrition of adolescents.

### **Reason:**

To create an awareness among adolescents about the level of correctness in the perception of their body images.

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**Keywords:** Adolescents, Body image, Muscular, Slim

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## INTRODUCTION:

Sarah Grogan defines body image as 'a person's perceptions, thoughts and feelings about his or her own body'. In the modern era, the attention towards one's body image has increased manifold. In particular, the period of adolescence is that period of lifetime where a person gets to focus more on his/her health and beauty. Of course, beauty doesn't solely rely on one's external appearance but also is influenced by fitness and health. BMI on the other hand is basically a measure of body fat based on a person's height and weight. It is one of the methods to assess a person's health state and fitness. The individual's evaluation of biological changes, health and illness is shaped by sociocultural and social-psychological factors [1]. Further, individuals' perception about their body image is to a greater extent affected by the cultural ethos they relate themselves with and predominantly by the projection of social media [10].

According to Olivardia et al., the body image concerns of men have not been addressed in the scientific literature nearly as extensively as the body image concerns of women [8]. For long people have considered body image to be important only for women. With changing trends, even men have started striving in maintaining a fit body image. There exists a perception according to which they define being healthy as being muscular for a man and slim for a woman. The way people perceive their body image influences their eating habits, mental state, confidence levels and their way of dressing up too. Particularly among women, depression and body dissatisfaction typically accompany each other [8]. Recent studies have demonstrated that perceived health largely predicts morbidity, mortality, the use of health services and disability pensioning [1]. Many researches have been

conducted previously about the perception of body image by individuals. Similarly, there are several studies assessing the BMI of different age groups. But, very few researches have been initiated in correlating body image perception and BMI among adolescents. This study aims at comparing the perception of body image and actual BMI among adolescents and also to find out whether individuals are able to perceive their body image exactly in accordance with their health state. The study also examines various other daily routines disposed due to one's body image perceptions.

## MATERIALS AND METHODS:

This study was a questionnaire based study. The questionnaire was self-administered with the standard BIQ (Body Image Questionnaire) as a base. The questionnaire included the basic information like the subjects' name, age, sex, height, weight and BMI. Apart from this the subjects' were asked their perception of their current body image, whether they were satisfied with the present body image, the feature they dislike the most in themselves, their body image's effect on daily routine and also in circumstances like choosing a dress, having a photo, working out in a gym, etc., All these questionnaires were framed to understand in depth how the perceived body images could affect an adolescent's life.

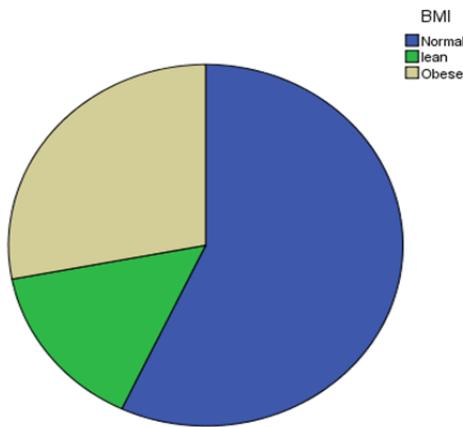
The study group consisted of a total of 100 participants from the city of Chennai (India) who had an equal representation of 50 females and 50 males. Since this study involves only adolescents, the participants were aged between 17-19 years. The questionnaire was distributed to the subjects and the responses were collected. A detailed statistical analysis was carried out using SPSS version 20.

**Statistical analysis:**

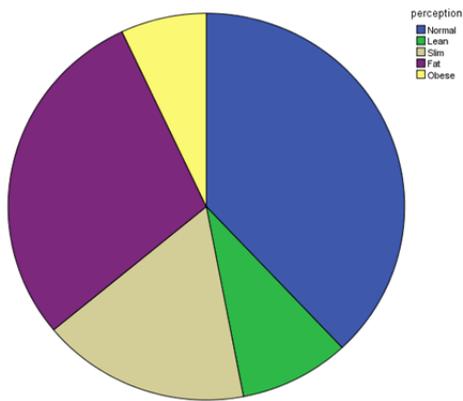
The mean, median, mode and standard deviation for the collected data were as follows:

Statistics				
		BMI	Perception	Tobeimage
N	Valid	100	100	100
	Missing	0	0	0
Mean		.7100	1.5800	.5300
Median		.0000	2.0000	.5000
Mode		.00	.00	.00
Std. Deviation		.87957	1.42262	.55877

The first pie chart reveals the various proportions of normal, lean and obese adolescents based upon their Body Mass Index(BMI).

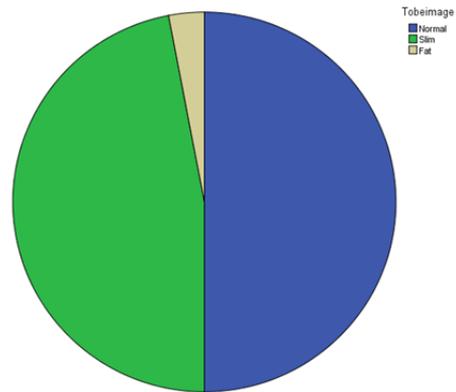


The next pie chart shows the proportions of individuals who have perceived their body images to be normal, lean, slim, fat or obese.



Perception	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	38	38.0	38.0
	Lean	9	9.0	47.0
	Slim	17	17.0	64.0
	Fat	29	29.0	93.0
	Obese	7	7.0	100.0
	Total	100	100.0	100.0

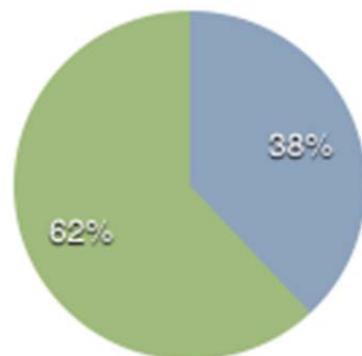
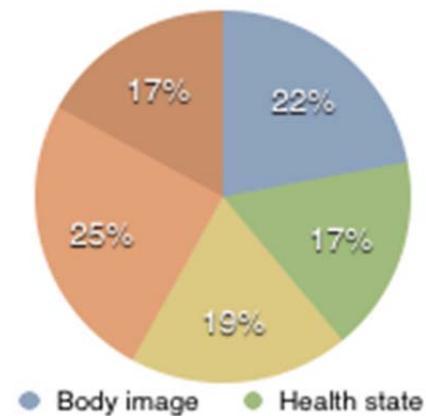
The pie chart given below shows the proportions of number of subjects who want their body image to be normal, fat or slim.



Tobeimage	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	50	50.0	50.0
	Slim	47	47.0	97.0
	Fat	3	3.0	100.0
	Total	100	100.0	100.0

The two pie charts indicate the percentage of adolescents who give preference for body image or health state and common features adolescents dislike about themselves.

- Skin complexion
- Spectacles
- Others
- Hair
- Nothing



**RESULTS:**

The results of this study reveal that in spite of having a normal BMI range many adolescents misperceive their body image to be fat or lean. This study also reveals that there is still a craze for a slim body image among women and a muscular body image among men. However, the bodily features don't worry youngsters much and many have felt no interference of these body images in their studies or work life.

**DISCUSSION:**

This study on body image perception among the adolescents of Chennai revealed interesting results which are discussed in detail in the forthcoming paragraphs. 89% of the study group feels body image to be important but when a choice was given

between body image and health state, about 62% feel health state to be important over body image. But, in a study by Rasa et al., it was found that the main reason to engage in a physical activity was to improve the body image (45.2%), while the health improvement motive was left out in the second place (33.6%)[2].

According to the BMI, about 57% adolescents fall within the normal range of 19-25, while 15% are lean and 28% are obese. But a significant difference was observed in the perceptions. Though according to BMI 57% of the study population is normal, only 38% have actually perceived their body image to be normal. Many perceive themselves to be either fat (29%) or slim (19%), while the percentage of lean and obese perceptions were 9% and 7% respectively. If the entire study population perceives their body image exactly as their BMI, then entire whose BMI are normal should have perceived their images as normal too. But in contrast only 38% perceptions match with that of BMI. Majority of the remaining perceive themselves to be fat in spite of having a perfectly normal BMI. Similar results were obtained in a study conducted by Luciana et al., where 33.3% of underweight women were more content with their body image compared to 15% of normal weight and 3.5% of overweight women[4].

Only 45% of the study population are satisfied with their current body image to be normal. Of the 55% who have a sense of dissatisfaction with their current body image, 57.1% want to become normal and 40.3% want to become slim. This craziness for becoming slim is because many still believe that staying slim means staying healthy. This is not always correct, because there are people who seem to be fat, but maintain a perfect fitness state and are healthier than those who are slim. A similar result was also reflected in a study conducted among the school students of Arkansas and Kansas districts, where 60% of the sample chose a figure smaller than their perceived current size, indicating that they wanted to be thinner.[9]

This study also brought to light many other interesting findings related to body image as follows:

About 48% are concerned that their body is not muscular or strong enough. Of these majority are boys who yearn for a muscular physique.

Surprisingly, 25% don't have any feature which they dislike about themselves or would like to improve. This

means that these adolescents are satisfied with the way they are at present.

This is to be appreciated, as this satisfaction is important in instilling confidence in adolescents. Of the features disliked, the highest percentage is for skin complexion (22%) and spectacles (19%).

About 43% think about their features for less than an hour per day and also check their features deliberately less than ten times a day. 29% of adolescents neither think about their features nor check them deliberately which is to be lauded.

For 42% of adolescents their current features cause a slight distress and for 34% it has an effect on developing a relationship. But for about 77% of adolescents, their present features do not interfere on their ability to work or study. In this selfie era, irrespective of gender, having a photo or video has been rated as the most avoided situation due to one's features, apart from playing a sport or working out in a gym.

The perception of oneself about one's own body image has drastic effects on the health state. For instance, people who perceive their body image accurately do not fall into inappropriate measures like weight loss or gain when there's actually no need[3]. Taking a look at the study results of Susan H. Gray, of all respondents 33.3% perceived themselves as appearing to weigh more than they did[5]. In such cases, there is a greater risk of these 33.3% of respondents falling into unnecessary actions concerned with weight loss. This is because, according to the projections of mass media, being thin has been considered to be beautiful.

This reason has also been pointed out in a study conducted among the students of England and Denmark that mass media and diverse socio-cultural pressures are seen to cause an increased awareness of being thin as ideal, and to contribute to the misperception of body weight[7]. But the actual fat is that neither all thin people are healthy nor all fat people are unhealthy. The main reason for giving fat and obese as two different options in my survey was to make people understand that there's a difference between these two terms. Fat is another body image but obesity is the actual health state. Fat people can be healthy, and have a flexible body which sometimes outwits even the slim ones. But obese are those who have a poor health state.

The next focus should be directed towards distinguishing between muscularity and weight concerns in the body image perception of males[6]. Even my study results indicate that there is a dissatisfaction among the male adolescents in not having a muscular body. This again is a projection of mass media in male body image. These views need a serious change because there are quite a lot of chances of witnessing undesirable health effects among men due to cosmetic surgery and the use of steroids for becoming muscular[8].

In general, the perception of body image has been found to cause eating disorders like Bulimia nervosa and Anorexia nervosa. In some cases orthopaedic problems due to weight loss and gain programs has also been reported. Further it also causes psychological problems, particularly

among women. They experience a life-long stress, lowered confidence levels and also a persisting fear.

#### CONCLUSION:

Body image has become every person's concern and has unimaginable effects on health state. In this study we've tried to bring out almost all aspects of body image perception among the adolescents of Chennai. Many studies need to be initiated of a similar sort in different parts of the world. If people move towards healthy measures in maintaining a body image then it's fine, but the opposite action results in an imbalance in one's health condition. So, it is high time that we educate people and create an awareness about an ideal body image so that every single person in this world is fit, healthy and blooms with happiness.

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