

## The Role of Body Image, Body Mass Index, Body Shape Dissatisfaction and Gender on Self-Esteem Among Obese Young Boys and Girls

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**Abstract.** In our society, obese young boys and girls often have problems with their self-esteem. Present research aimed to discover the relationship between body image, body mass index, body shape dissatisfaction and gender with self-esteem among obese young girls and boys. Study was conducted on (N=200, 100 young obese boys and 100 young obese girls, age ranges from 20-35 years) origin from cities of Punjab, Pakistan. Correlational research design was used while sample was selected by purposive sampling technique. A series of questionnaires Body Shape questionnaire – Modified Form (BSQ-MF) and Rosenberg self-esteem scale were administered to young obese boys and girls. The results indicated positive relationship among gender, body mass index, body shape dissatisfaction and self-esteem, while significant differences were found in girls and boys regarding body image and self-esteem. Girls has higher mean scores on body image that reduces their self-esteem comparatively to boys. Therefore, it is recommended to spread awareness about right body-image through media to protect and enhance the mental and physical health of adults.

**Keywords:** Body dissatisfaction, Body image, Body mass index, Gender difference, Self-esteem

**Abstrak.** Dalam masyarakat kita, remaja laki-laki dan perempuan yang mengalami obesitas sering kali mempunyai masalah dengan harga diri mereka. Penelitian saat ini bertujuan untuk mengetahui hubungan antara citra tubuh, indeks massa tubuh, ketidakpuasan bentuk tubuh dan gender dengan harga diri pada remaja perempuan dan laki-laki yang mengalami obesitas. Penelitian dilakukan terhadap (N=200, 100 remaja putra yang mengalami obesitas dan 100 remaja putri yang mengalami obesitas, rentang usia 20-35 tahun) yang berasal dari kota Punjab, Pakistan. Desain penelitian yang digunakan adalah korelasional, sedangkan sampel dipilih dengan teknik purposive sampling. Serangkaian kuesioner Kuesioner Bentuk Tubuh – Bentuk Modifikasi (BSQ-MF) dan skala harga diri Rosenberg diberikan kepada remaja laki-laki dan perempuan muda yang mengalami obesitas. Hasilnya menunjukkan adanya hubungan positif antara jenis kelamin, indeks massa tubuh, ketidakpuasan dan bentuk tubuh dengan harga diri, sedangkan perbedaan signifikan ditemukan pada anak perempuan dan laki-laki mengenai citra tubuh dan harga diri. Anak perempuan mempunyai skor rata-rata yang lebih tinggi pada citra tubuh sehingga menurunkan harga diri mereka dibandingkan anak laki-laki. Oleh karena itu, disarankan untuk menyebarkan kesadaran tentang citra tubuh yang benar melalui media untuk melindungi dan meningkatkan kesehatan mental dan fisik orang dewasa.

**Kata kunci:** Citra tubuh, Indeks massa tubuh, Harga diri, Ketidakpuasan terhadap tubuh, Perbedaan gender

Obesity is becoming major public health issues worldwide that is increasing day by day in every age group of humans and approximately 30% of world population is obese or deteriorate from standards. Obesity is a state which impacted by genetic and environmental factors that is difficult to control with healthy wellbeing or eating habits. In 2022 it has been found that one out of 8 adults in the world are obese while 43% of adults age 18 and above were over-weight, and 16% alive with obesity. Whereas 890 million people worldly wise living with obesity (Okunogbe et al., 2022).

Since 1980 obesity has doubled in children and adults. It is dominant in developing and developed economical countries especially in women living in urban areas with low socio-economic status (Tanzil et al, 2016). There are many factors effecting the obesity in every age group and gender such as, economic factors, socio-cultural factor, living standards, media pressures, peer group and teen-age pressures, socio-economic and educational factors having direct linkages with obesity (Nanan DJ, 2002).

According to WHO 2020, Pakistan is the world's 9th obese nation, affecting all age groups specially women than of men and its ration can be doubled in coming years because of unhealthy life styles, high carbohydrate intake, less physical activity, environmental and socio-cultural factors (Siddiqui et al, 2016). There are biological, psychological and social factors impacted upon the person's developmental stage. In the most crucial stage of development, from adolescent to adulthood, young adults faced prominent changes in their life span. Most of them faced challenging life incidents; left home for earning or educational purposes, starts a new job, relationships, admitted to university or college, marriage and parenthood. These lifestyle changes make young adults vulnerable to health constraints, bad sleep habits, poor dietary habits, long hours job, and overall unbalanced unhealthy lifestyle. Lifestyle changes are highly associated with obesity, dissatisfied body image and low self-esteem. In older adults distorted body image activates emotional state of insignificance and it lowers self-esteem (Rocha & Terra, 2013).

There are many researches claimed that obesity causes poor self-esteem among obese young boys and girls (Dale et al, 2019). In general obesity negatively correlates with obesity in adults. A longitudinal study conducted on BMI and self-esteem and resulted as, that females with higher and increasing BMI associated with lower and slower increasing self-esteem, unlike these associations were weaker in male participants (Kiviruusu et al. 2016).

The term self-esteem first derived by William James (1890) who assimilate it with self-regard. According to him a person who struggles to attain his life's important goal eventually developed positive self-worth and self-esteem (Brown, 1998). Rosenberg explained self-esteem as optimistic or undesirable behavior by oneself (Rosenberg, 1965). Self-esteem is the evaluation and power of acceptance ones has in their life while facing life challenges (Grumm et al, 2009)

The Maslow theory of self-esteem stated that it is basic human desire and inspiration to get accepted their self-image which leads towards self-actualization (Maslow, 1987). The Rogers theory of self-esteem claimed that giving unconditional acceptance and care to any individual increases their self-esteem (Maslow & Lewis, 1987). According to set point theory by Garner and Wooley (1991) every individual has specific genetic weight which cannot be altered. It stated that every human body has their own weight range (minimum-maximum) and body fights to come back on its original maximum or minimum weight range (Thomas et al, 2014). Whenever, fat level of body increases or decreases, physiological and psychological process initiated and boost up body to return to their set point (Rozin, 1999).

According to a study our society accept some one's personal accomplishments if the achiever meets the standard beauty criteria. Meanwhile, our media reinforced unrealistic beauty standards and body images which makes women vulnerable to psychological disturbances as anxiety, depression and distorted self-image. The fear of being rejected and unacceptable to the society leads them towards less productive and lower their self-esteem (Rana, 2021). Obesity and self-esteem considered as interdependent factors. Studies showed that individuals with high self-images and confidence have higher level of self-esteem. While distorted self-image leads towards low self-esteem. A study claimed positive relationship among body image and self-esteem among married females and negative association between depression and body image (Must & Straus, 1999; Shabir et al, 2013).

Sociocultural pressures impact upon female adults than of male adults. Gender differences in looks, appearances, body image are becoming noticeable. In western culture men body image dissatisfaction makes them more worried which increased their desire to get muscular body. Someone with distorted body image and unsuccessful to get a slender muscular body they faced psychological issues such as low self-esteem, depression and eating disorders (Cafri et al, 2005). According to a study social pressure on men and women are different. Men wanted to become more muscular whereas female wants thinner body (Cash, 2005). Cultural values and media play a vital role to imagine the perfect standardized looks of any adult. Though, it affected and forced the generation to adapt those standards

otherwise they would face the rejections from society, peers, job-place and companionship (Croll, 2007).

The positive incentive theory claimed that people have different derives and intentions to eat such as; pleasure, social and biological aspects (Hetherington & Rolls, 1996). Some individuals found eating pleasurable and relaxing whereas, others found it classy and cultural to eat more. There are also biological factors involved in eating habits which directly attached with blood glucose levels and overall immunity of individuals (Capaldi, 1996).

Globally, the obesity has doubled since 1980. It is prevalent in both developing and developed countries and in children as well as adults, especially women in the urban setting. Besides genetics, in-creasing urbanization, higher intake of energy-dense foods, changing life-style and sedentariness are the most important determinants, along with socio-economic status and educational level showing inverse relationship with obesity.

Body image is how people feel about their own physique, size estimation, valuation of appearance and emotions linked with figure, shape and size. It is a person's own perception about their physical looks and aesthetic attractiveness. Adults are more concerned about their appearance specifically in current era; every person adopted and get inspired by the media and celebrities. It is human nature to compare their body image and looks with the celebrities and make a norm associated with the standards of society. These body concerns and comparisons leads them towards unnecessary cosmetic surgeries, Botox, fattening treatments that put their health at risk. According to Thompson et al, (2005) young adults tried their best to attain that thin and smarter look by using any procedure to avoid negative body image. Society, norms and culture intentionally and unintentionally pressurizing the adults that lower their self-esteem and self-image (Myers and Crowther, 2009).

Moreover, gender differences impact upon the level of self-esteem. According to Trzesniewski et al, (2003) adolescent boys showed higher self-esteem than adolescent girls. Whereas, in older groups women age range 80 to above score higher in self-esteem than of male participants of same age group (Guegan, 2006). Researches claimed that physically attractive students have good relationships at high school level and having strong social interaction than of un-attractive girls (Ricciardelli & McCabe, 2001). Studies proposed strong relationship between body image and self-esteem among adolescent girls (Huebscher, 2010).

This study aims to explore the impact of body image, body mas index, body dissatisfaction and gender on obese young adult's self-esteem. It evaluates the relationship in BMI, weight, obesity, body image and self-esteem among obese adult boys and girls.

Meanwhile, distorted body image leads to vulnerability of psychological disturbances because it is unacceptable standard of beauty and it lowers the self-esteem of the individuals. It is the need of time to come out of this kind of pressures and work on productivity, creativity and innovation. This research is universal and international as every nation is affected by this issue. This research resolved the issue whether there is relationship between body image, BMI and self-esteem among young boys and girls. Secondly, if there are gender differences in mean scores of participants. We proposed hypotheses as follows; 1) There is a relationship between gender, height, weight, body mass index, and body image with self-esteem among obese young boys and girls, 2) There is a mean difference in obese young boys and girls body image and self-esteem.

## **Method**

### ***Variable Identification***

This study was a quantitative correlational study in which cross sectional research design used. The variables in this study are body image, body dissatisfaction and self-esteem.

### ***Research Instruments***

#### ***Demographic sheet***

The demographic sheet contains questions about their height, weight to measure their body mass index, age and gender.

#### ***Body shape questionnaire-modified form (BSQ\_MF)***

The Body Shape Questionnaire (BSQ) scale measures the body shape and concerned about the body image. This scale is widely used to measure body dissatisfaction and eating disorders (Cooper et al, 1996). This scale consists of 14 items with six-point Likert scale ranging from 1-6 where 1 implies “never” and 6 implies “always”. Alpha scale reliability is .89.

#### ***Rosenberg self-esteem scale (RSE)***

Self-esteem is a wider depiction of one’s own self that includes cognitive and behavioral aspects (Rosenberg, 1965). This scale measures the body image and self-esteem among adults. This is 10-item scale with 4-point Likert scale ranging from 0-3 where 0 implies for” strongly dis-agree” and 3 implies for “strongly agree”. Cronbach alpha reliability is .84.

### ***Research subjects***

A sample of Punjab cities adults was chosen through purposive convenient sampling technique. A sample of (N=200, female and male, age ranges from 20-35 years) adult obese boys and girls taken. Before data collection a small meeting conducted with the participant and they were informed about the research purpose, terms and conditions with ethical code of conduct. Participants were told, they can withdraw from the research anytime when they needed while all the information regarding them keeps in private and confidential. They were directed to sign the consent form, demographic form and then series of questionnaire.

### ***Analysis Techniques***

Correlation analysis used to find out the relationship between variables and regression analysis used to find out the mean scores among young obese boys and girls. Statistical (package)manual for the social science (SPSS) used for this analysis.

## **Result**

Below is the demographic characteristics of our respondent. Total of 200 informants, specifically 100 young obese boys and 100 young obese girls from age group between 20 to 35 years old, assigned from Lahore city of Pakistan.

Table 1

*Demographic Characteristics*

<b>Variables</b>	<b>F (%)</b>	<b>Mean</b>	<b>S.D</b>
Age		19.38	1.57
Height		5.49	.29
Weight		83.09	8.33
BMI		30.79	1.77
Gender			
Boys	100 (50%)		
Girls	100 (50%)		

The results verified that the hypothesis “there is a relationship between gender, height, weight, body mass index, body image and self-esteem among obese young girls and boys” has proved the relationship between variables.

Table 2

*Correlation of Gender, Height, weight, BMI, BSQ and RSES.*

	1	2	3	4	5	6
1. Gender	-					
2. Height	.600**	-				
3. Weight	.505**	.791**	- 2			
4. BMI	-.204**	-.369**	.212**	-		
5. BSQ	-.409**	-.249**	-.065	.307**	-	
6. RSES	.141*	.027	.05	.05	.07	-

Results shows that body shape has negative correlation with gender and height while positive correlation with BMI. It also reveals that self-esteem has positive correlation with gender. The results claimed that second hypothesis “There is a mean difference in boys and girls body image and self-esteem” has been approved.

Table 3.

*Simple Regression Analysis (N=200)*

Variable	Girls		Boys		T	sig	df	95% CI	
	M	SD	M	SD				LL	UL
BSQ	64.36	6.43	58.12	7.51	6.305	.421	193.4	4.28	8.19
RSES	19.27	2.57	20.2	2.71	-2.006	.428	197.4	-1.487	-.013

Results shows that there is a significant difference between body image of adults regarding their gender (t=6.30), but there is also difference between self-esteem of adults regarding their gender (t= -2.006). Girls has higher mean score in body image that reduces their self-esteem than of boys. Which indicates that body image comparatively has strong impact on self-esteem of girls than boys.

### Discussion

The result of present study indicated that there is a relationship between body image and self-esteem among obese girls and boys in adulthood. Similarly results indicated that obese girls having lower body image and self-esteem than obese boys. Previous studies support the results as boys reported high self-esteem than girls. Generally, boys like to face struggle, fight, supremacy and enthusiasm to show their potentials. In society it is

standardized to see boys as muscular and lean while girls as thin and weak, this is the reason adolescent girls mentioned more body dissatisfaction and low self-esteem. In adolescence stage; girls are more vulnerable to negative thoughts, anxiety, eating disorders and depressive episodes than of boys because of emotions relevant to internalizing problems (Agam et al, 2015).

The findings of present research revealed that obese boys and girls are different in their body image perception. A study supported the results that body image of female adolescent different from male adolescents. Male adolescent showed positive difference compared to female adolescent regarding body image (Avci & Akliman, 2018). Cultural differences impact upon the relationship of body image dissatisfaction and low self-esteem as it usually exists in western countries than of Asian countries (Wardle et al, 2006).

This study also reveals that body image dissatisfaction is related to gender and body mass index whereas self-esteem is related to gender. A study supports our finding by stated that majority of their participants 81% females and 41% males were dissatisfied with their body image. They found significant correlation among female and male adolescents perceived body mass index and body image dissatisfaction (Radwan et al, 2019).

### **Conclusion**

The study concluded that in adolescent developmental stage body image is interlinked with self-esteem while gender differences also matter. The obese adolescent girls have lower self-esteem and lower body image than of boys.

### *Limitations*

This study taken participants from a specific age range 20-35 which was very limited and it should be extended to all age groups to find out the differences. Secondly, sample size was limited which should be more than 200 with different age groups to enhance the results validity.

### *Recommendations*

There is a need to educate and spread awareness about the importance of right body image, healthy eating behaviors, healthy life styles, physical activities to improve body image and satisfaction which helps to improve their overall wellbeing and self-esteem besides their gender. Secondly, government should support the relevant departments to educate general public about coping strategies to deal with depressive episode occurred due to body image dissatisfaction and eating disorders. Body image dissatisfaction, eating disorders, bad self-



perception, and lower self-esteem are the main factors leads to vulnerability specifically in women. Therefore, it is recommended to future researchers to work on other variables affect the body image and self-esteem of young adults; to enhance their personality, perception and overall wellbeing.

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