

# Obesity and Self-Esteem in African American Youth

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## Background

**Obesity:** abnormal fat accumulation that is a risk to health (WHO, 2020)

**Self-Esteem (SE):** individual's subjective evaluation of the self & consists of the extent to have positive or negative views towards the self (Abdel-Khalek, 2016)

### Obesity & SE

- There is a bidirectional relationship between obesity and SE (Elran-Barak, 2019)
- Weight attitudes & the development of SE begin in early childhood (Puhl et al., 2006)
- Obese youth have lower levels of SE than youth at a healthy weight (Gow et al., 2020)
- African Americans (AA) have the highest rates of obesity & higher levels of SE than other races & ethnicities (CDC, 2020; Bachman, 2011)

### Obesity, SE, & Gender

- The association between low SE & high BMI is more pronounced in AA females than AA males (Borders et al., 2006)
- **However, little research has focused on how obesity impacts SE in AA youth**

## Aim

To examine how obesity relates to AA male and female adolescents

## Hypotheses

- 1.) Females will have higher rates of obesity than males
- 2.) Females will have lower levels of SE than males
- 3.) Youth who are obese will have lower levels SE

## Methods

### Participants:

- 182 male (46.7%) and female (53.3%) youth (11.08-16.09, mean age=13.2 yo) from low-income, predominantly AA urban communities
- Recruited from an obesity prevention RCT program known as "Challenge!" that was implemented in homes in a large MidAtlantic city

### Measures:

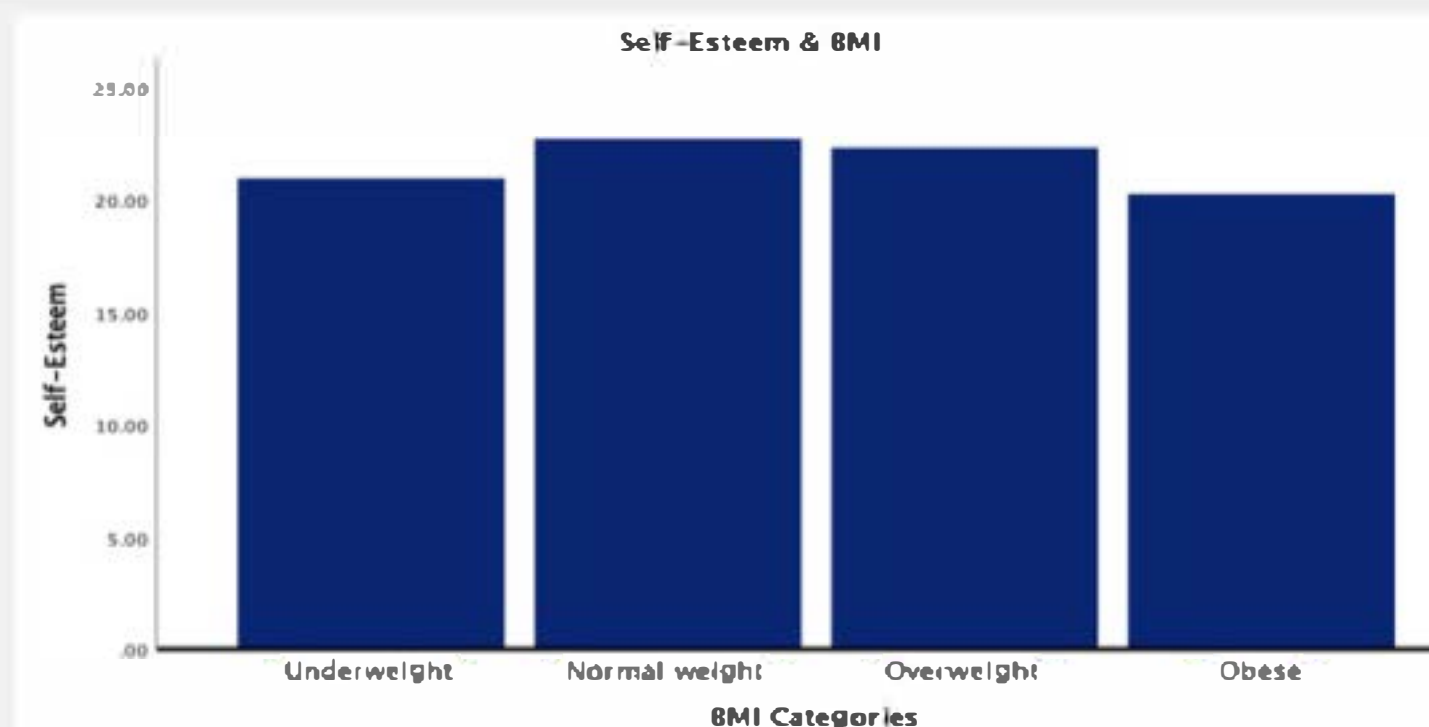
#### Self-esteem

- Rosenberg Self-Esteem Scale (SES) was self-administered. It is a 10-item Likert scale.
- The scale ranges from 0-30, with 30 indicating the highest self-esteem score possible (Rosenberg, 1965)

#### Obesity

- Trained researchers weighed each participant in triplicate.
- **Body Mass Index (BMI)** is based on participants' age and gender, and CDC standards
  - Underweight weight < 5<sup>th</sup> percentile
  - Normal weight  $\geq$  5<sup>th</sup> and < 85<sup>th</sup> percentile
  - Overweight  $\geq$  85<sup>th</sup> and < 95<sup>th</sup> percentile
  - Obese  $\geq$  95<sup>th</sup> percentile

	Total	Male	Female
Underweight	5	3	2
Normal weight	103	56	47
Overweight	25	11	14
Obese	49	15	34



## Results

### Obesity & Gender

- Females had higher rates of obesity than males,  $t(180) = -2.85, p < .05$

### Self-Esteem, Gender

- Gender was not related to SE in this sample

### Obesity & Age

- Youth aged 13.00-16.09 had higher rates of obesity than youth aged 11.08-12.99,  $t(179) = 2.15, p < .05$

### Obesity & SE

- Significant negative correlation between SE and obesity in females and males,  $r(180) = -.187, p < .05$
- There was no difference between the normal weight and overweight groups in SE.
- **Obese individuals ( $M=20.31$ ) reported the lowest SE among all four groups,  $F(3, 178) = 2.34, p = .075$**

## Conclusions

- Male and female AA youth did not differ in self-esteem
- Obese youth exhibited the lowest levels of self-esteem
- The overweight group did not differ from the normal weight group in SE. This finding may be due to:
  - Smaller sample size for the overweight group, OR
  - The high rate of overweight and obesity in the sample may have contributed to the normalization of larger body sizes and reduced the impact of weight on SE.

## Future Directions

- Include measure of pubertal timing
- Increase diversity of sample
- Include other psychosocial variables like depression and anxiety to examine their impact on obesity and SE