

# The Association of Obesity on Self-esteem among Selected Grade 12 students of Perpetual Help College of Manila

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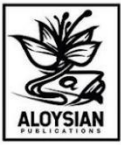
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## Abstract

This study investigates the association between obesity and self-esteem among selected Grade 12 ABM students at Perpetual Help College of Manila. The researchers employed a quantitative research design to assess the relationship between obesity and self-esteem. A total of 30 students identified as obese from the ABM strand were selected using purposive sampling. Data were collected through structured survey questionnaires utilizing a Likert scale and Body Mass Index (BMI) measurements. The findings revealed that obese respondents had an overall weighted mean of 1.96, interpreted as “disagree”, indicating a generally low level of self-esteem. Additionally, another set of responses showed an overall weighted mean of 1.52, interpreted as “strongly agree,” further suggesting negative self-esteem among the participants. These results indicate a significant association between obesity and lower self-esteem levels among the selected students. The study recommends that schools implement comprehensive programs aimed at enhancing self-esteem, promoting body positivity, increasing mental health awareness, and building emotional resilience among students.

**Keywords:** *Obesity, self-esteem, adolescents, Grade 12 students, ABM strand, Body Mass Index (BMI), quantitative research design, purposive sampling, Likert scale, survey questionnaire, low self-esteem, negative self-perception, mental health, body image, body positivity, emotional resilience, school-based intervention.*



## I. INTRODUCTION

### Backgrounds and Rationale

Obesity has emerged as an increasing issue globally, impacting not just physical health but also an individual's mental wellness. Among teenagers, this problem is becoming increasingly apparent due to shifts in lifestyle like decreased exercise and poor dietary choices. The growing prevalence of overweight and obese teens in the Philippines highlights an escalating public health issue. In senior high school, students go through a phase where self-awareness and social acceptance gain significance, causing them to be more attuned to their appearance and others' perceptions. Self-worth is crucial for an adolescent's complete growth. It pertains to how people assess and view themselves, encompassing their sense of value and self-assurance. Learners with elevated self-esteem often feel more confident and competent, whereas those with low self-esteem can encounter dissatisfaction, uncertainty, and negative feelings. According to Digamon et al. (2020), self-esteem relies on an individual's personal assessment of their worth. When obesity exists, it can impact how students perceive their bodies, potentially affecting their self-esteem and social interactions. In certain situations, students might face social stigma, ridicule, or being compared to their peers, which can lead to diminished self-esteem.

New statistics in the Philippines indicate that adolescent obesity is still increasing. The 2021 Expanded National Nutrition Survey indicates that a significant proportion of Filipino teenagers are identified as overweight or obese. This scenario is further complicated by societal norms and criteria, where emphasis is frequently placed on physical appearance. Numerous students might experience pressure to conform to specific body standards, particularly due to the impact of social media and their peer circles. This research targets specific Grade 12 learners at Perpetual Help College of Manila, a cohort grappling with academic duties and personal growth issues. At this point, learners are getting ready for what lies ahead dealing with social expectations and identity formation. Because of this, their self-esteem may be influenced by both internal factors and external experiences, including body image and peer relationships.

Given these conditions, this study aims to examine the association between obesity and self-esteem among selected Grade 12 students of Perpetual Help College of Manila. Specifically, it seeks to understand how obesity relates to students' self-esteem levels, how they perceive their physical appearance, and how their interactions with peers may influence their self-worth. By focusing on this group, the study hopes to provide a clearer understanding of how physical health and self-esteem are connected in a school setting.

The findings of this study are expected to contribute to a better understanding of adolescent well-being. It may help educators, school administrators, and future researchers recognize the importance of addressing both physical and emotional aspects of student health. In addition, the study may support the development of programs that promote self-acceptance, positive body image, and a more supportive school environment for all students.

## Review of Related Literature and Studies

### Local Studies

At the local level, body shaming remains a major factor affecting self-esteem among adolescents. It reinforces harmful societal standards and leads to psychological issues such as low self-esteem, depression, and body dissatisfaction (Escoton et al., 2021). The impact is more severe when negative comments come from close relationships such as family, peers, or teachers.

Studies among Grade 12 students indicate that low self-esteem is often linked to body image concerns and social comparison, which can negatively affect academic performance and social interaction (Corbita, 2023). Adolescents with poor self-image may develop avoidance behaviors, limiting their participation in physical and social activities, which further impacts their well-being (Digamon et al., 2020).

Social media also plays a significant role in shaping self-esteem. While it provides opportunities for self-expression, it also exposes adolescents to unrealistic standards, cyberbullying, and negative feedback, which can harm their self-perception (Abante & Carballeira, 2023). However, it can also be used as a platform to promote body positivity and mental health awareness when utilized responsibly (Zulkifli et al., 2023).

### International Studies

Obesity is a significant global health issue characterized by excessive body fat accumulation that increases the risk of chronic diseases such as diabetes, cardiovascular conditions, and certain cancers. It is commonly measured using Body Mass Index (BMI), with a value of 30 or higher classified as obese (WHO, 2024). Although BMI has limitations, it remains a widely used tool in identifying individuals at risk.

Self-esteem is an essential aspect of psychological well-being, particularly during adolescence, when individuals undergo rapid developmental changes. It reflects how individuals perceive their self-worth and is influenced by body image, social interactions, and environmental factors (Byth et al., 2022). Dissatisfaction with physical appearance can lead to lower self-esteem and increase vulnerability to mental health concerns such as anxiety and depression.

Social influences, including feedback from family, peers, and society, play a crucial role in shaping self-esteem. Negative judgments and rejection can significantly damage self-concept and confidence (Kelly et al., 2021). In addition, media exposure promotes unrealistic beauty standards, often emphasizing thinness, which pressures adolescents to conform and contributes to body dissatisfaction (Adjimi, 2021). As a result, many adolescents engage in social comparison, leading to feelings of inadequacy.

Studies have shown a negative relationship between obesity and self-esteem, where overweight individuals often experience stigma, bullying, and exclusion, reinforcing negative self-perceptions (Zartaloudi et al., 2023). Conversely, physical activity has been found to improve self-esteem and mental well-being by promoting positive emotional responses (Gow et al., 2020).

### **Statement of the Problem**

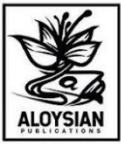
This study aimed to quantitatively assess the relationship between obesity and self-esteem among Selected Grade 12 students. Specifically, it sought to answer the following research questions:

1. What are the socio-demographic characteristics of the respondents in terms of:
  - 1.1. Age;
  - 1.2. Gender;
  - 1.3. BMI
2. What is the level of self-esteem among Selected Grade 12 students who are categorized as obese?
3. What are the effects of obesity on self-esteem?
4. How does obesity affect the self-esteem scores of Selected Grade 12 students as measured by a standardized self-esteem scale?
5. How do Selected Grade 12 students perceive their physical appearance and its effect on their self-esteem?
6. How do the Selected Grade 12 students view their relationship with their peers and how does this affect their self-esteem?
7. Is there a significant relationship between obese respondents to self-esteem to demographic factors?

## **II. MATERIALS and METHODS**

### **Research Design**

A descriptive quantitative research design is currently being employed in the research study to assess the effect of obesity on self-esteem among a selected group of Grade 12 students in Perpetual Help College of Manila.



### **Participants**

Data was collected on October 25, 2024 using a structured survey questionnaire administered to 30 purposively selected obese Grade 12 Senior High School students who participated in the study.

### **Instruments of the Study**

The questionnaire comprised demographic information, Body Mass Index (BMI)-based height and weight data, and scales measuring self-esteem through a Likert scale instrument. The use of purposive sampling ensured that respondents were relevant to the study's objective of assessing the relationship between obesity and self-esteem. Researchers used Likert scale surveys and BMI tools to collect quantitative data. The survey included both positive and negative statements about self-esteem and body image. Scoring logic High ratings on positive statements = high self-esteem low ratings on negative statements = low self-esteem. Negative statements were reverse scored to reflect self-esteem accurately. Simple Random Sampling was applied to Grade 12 students for fairness. The goal was to understand obesity's impact on self-esteem. Closed questions ensured structured and accurate responses. Researchers first wrote a permission letter to the Nursing Research advisor. Upon approval, they developed and validated the survey questions.

### **Data Gathering Procedure**

The survey was conducted with selected 30 Grade 12 students using Simple Random Sampling. Responses were collected, organized, and analyzed to explore variable relationships.

### **Data Analysis**

SPSS version 26 was used for statistical computations. Frequency distribution and mean were used for descriptive analysis. Frequency distribution helps organize responses and identify trends. It's used to analyze demographic profiles (age, gender, BMI).

### III. RESULTS

**Table 1.** *Profile of the respondents*

Profile	Indicator	Frequency	Percentage	Rank
Age	17 years old	6	20.00	3
	18 years old	10	33.33	1
	19 years old	5	16.67	4
	20 years old	9	30.00	2
Gender	Female	14	46.67	2
	Male	16	53.33	1
BMI Class	Obese class I	22	73.33	3
	Obese class II	7	23.33	1
	Obese class III	1	3.33	4
<b>Total</b>		<b>30</b>	<b>100.00</b>	

Most respondents were 18 years old (33.33%), followed by 20 years old (30.00%), while fewer were 17 (20.00%) and 19 years old (16.67%), indicating that participants were primarily in late adolescence. In terms of gender, males (53.33%) slightly outnumbered females (46.67%), showing a nearly balanced distribution.

The majority of respondents were classified under Obese Class I (73.33%), with fewer in Obese Class II (23.33%) and only a small proportion in Obese Class III (3.33%), suggesting that most participants fall within the lower range of obesity classification.

**Table 2.1** *Positive Self Esteem*

<b>Positive Self Esteem</b>	<b>WM</b>	<b>SD</b>	<b>Interpretation</b>
1. On the whole, I am satisfied with my self appearance.	1.93	0.91	Disagree
2. I am able to do things as well as	1.90	1.06	Disagree
3. most other people do despite of my weight.			
4. I take a positive attitude toward myself.	2.10	0.99	Disagree
5. I recognize my strengths beyond my physical appearance, which helps me feel confident.	1.93	1.01	Disagree
6. I feel proud of myself regardless of my weight.	1.80	1.00	Disagree
7. My weight does not define my worth as a person.	2.03	0.96	Disagree
8. I feel confident in social situations regardless of my weight.	1.63	0.89	Strongly Disagree
9. My family accepts and encourages me, no matter my body size is.	2.70	1.02	Agree
10. I do not feel criticized because of my weight.	1.73	0.98	Strongly Disagree
11. I embrace self-care and self-love, knowing that my worth is not defined by my weight.	1.83	1.05	Disagree
<b>Overall Weighted Mean</b>	<b>1.96</b>	<b>0.80</b>	<b>Disagree</b>

**Legend:**                      3.26 - 4.00    *Strongly Agree*                      2.51 - 3.25    *Agree*  
    1.76 - 2.50    *Disagree*                                      1.00 - 1.75    *Strongly Disagree*

Respondents generally reported low positive self-esteem, as indicated by an overall weighted mean of 1.96 (SD = 0.80), interpreted as “Disagree.” Most indicators, such as satisfaction with self-appearance (M = 1.93, SD = 0.91), self-confidence despite weight (M = 1.90, SD = 1.06), and feeling proud of oneself (M = 1.80, SD = 1.00), were rated low.

Notably, respondents strongly disagreed that they feel confident in social situations (M = 1.63, SD = 0.89) and that they do not feel criticized because of their weight (M = 1.73, SD = 0.98).

However, family support was evident, as respondents agreed that their family accepts and encourages them regardless of body size ( $M = 2.70$ ,  $SD = 1.02$ ). Overall, positive self-esteem among respondents appears to be generally low despite the presence of external support.

**Table 2.2** *Negative Self Esteem*

Negative Self Esteem	WM	SD	Interpretation
1. I often feel unattractive because of my weight, making me hesitant to socialize.	1.33	0.61	Strongly Agree
2. I compare myself to others and feel like I don't measure up because of my body size.	1.43	0.77	Strongly Agree
3. I struggle to feel confident in public because I worry about how my weight affects others' perception of me.	1.53	0.82	Strongly Agree
4. I sometimes feel like I am not good enough because of the way my body looks.	1.57	0.68	Strongly Agree
5. I avoid certain activities out of fear that my weight will make me stand out.	1.40	0.77	Strongly Agree
6. I struggle with my self-acceptance due to my weight.	1.40	0.62	Strongly Agree
7. I compare my body to others and feel less confident because of my weight.	1.53	0.78	Strongly Agree
8. I feel pressured by my family to lose weight.	1.83	0.83	Agree
9. I feel uncomfortable looking at myself in mirrors or photos because of my weight.	1.43	0.63	Strongly Agree
10. I feel judged by my friends because of my weight.	1.77	0.77	Agree
<b>Overall Weighted Mean</b>	<b>1.52</b>	<b>0.52</b>	<b>Strongly Agree</b>

**Legend:**

3.26 - 4.00	Strongly Disagree	2.51 - 3.25	Disagree
1.76 - 2.50	Agree	1.00 - 1.75	Strongly Agree

Respondents reported high levels of negative self-esteem, as reflected by an overall weighted mean of 1.52 ( $SD = 0.52$ ), interpreted as "Strongly Agree." Most indicators, such as feeling

unattractive ( $M = 1.33$ ,  $SD = 0.61$ ), comparing oneself to others ( $M = 1.43$ ,  $SD = 0.77$ ), and lack of confidence in public ( $M = 1.53$ ,  $SD = 0.82$ ), were strongly endorsed.

Additionally, respondents strongly agreed that they avoid activities ( $M = 1.40$ ,  $SD = 0.77$ ) and struggle with self-acceptance ( $M = 1.40$ ,  $SD = 0.62$ ) due to their weight. Some also reported feeling pressure from family ( $M = 1.83$ ,  $SD = 0.83$ ) and judgment from friends ( $M = 1.77$ ,  $SD = 0.77$ ). Overall, the findings indicate that negative self-esteem is highly prevalent among the respondents.

**Table 3.** *Test of Significant Relationship between the Obesity and the Self-Esteem of Grade 12 ABM students*

CORRELATIONS		r value	p-value	Decision	Remarks
<i>Obesity</i>	<i>Self Esteem</i>				
BMI	Positive	0.016	0.933	Accept Ho	<i>Not significant</i>
	Negative	0.492	0.006	Reject Ho	<b><i>Significant</i></b> <b><i>t</i></b>

*If  $p - value > 0.05$  Threshold Level: Accept Ho: Not Significant*

Respondents reported high levels of negative self-esteem, as reflected by an overall weighted mean of 1.52 ( $SD = 0.52$ ), interpreted as “Strongly Agree.” Most indicators, such as feeling unattractive ( $M = 1.33$ ,  $SD = 0.61$ ), comparing oneself to others ( $M = 1.43$ ,  $SD = 0.77$ ), and lack of confidence in public ( $M = 1.53$ ,  $SD = 0.82$ ), were strongly endorsed.

Additionally, respondents strongly agreed that they avoid activities ( $M = 1.40$ ,  $SD = 0.77$ ) and struggle with self-acceptance ( $M = 1.40$ ,  $SD = 0.62$ ) due to their weight. Some also reported feeling pressure from family ( $M = 1.83$ ,  $SD = 0.83$ ) and judgment from friends ( $M = 1.77$ ,  $SD = 0.77$ ). Overall, the findings indicate that negative self-esteem is highly prevalent among the respondents.

**Table 4.** *Obesity affecting the self-esteem of Grade 12 ABM students*

Self-Esteem	Frequency	Percentage	Rank
Low self-esteem	5	16.67	3



Moderate self-esteem	6	20.00	2
Very low self-esteem	19	63.33	1
<b>Total</b>	<b>30</b>	<b>100.00</b>	

The majority of respondents were classified as having very low self-esteem (63.33%), followed by moderate self-esteem (20.00%) and low self-esteem (16.67%). This indicates that most respondents experience poor self-esteem, with only a small proportion demonstrating relatively better self-perception. Overall, the findings suggest that obesity is associated with generally low levels of self-esteem among the respondents.

**Table 5.** *Test of Significant Relationship between the Physical Appearance and the Self-Esteem of Grade 12 ABM students*

CORRELATIONS		r value	p-value	Decision	Remarks
Physical Appearance	Self-Esteem	0.969	0.000	Reject Ho	<b>Significant</b>

*If p – value > 0.05 Threshold Level: Accept Ho: Not Significant*

A very strong and statistically significant relationship was found between physical appearance and self-esteem ( $r = 0.969$ ,  $p = 0.000$ ), leading to the rejection of the null hypothesis. This indicates that physical appearance is highly associated with the self-esteem of the respondents, suggesting that perceptions of physical appearance greatly influence their level of self-esteem.

**Table 6.** *Test of Significant Relationship between the Peers and the Self-Esteem of Grade 12 ABM students*

CORRELATIONS		r value	p-value	Decision	Remarks
Peers	Self-Esteem	0.851	0.000	Reject Ho	<b>Significant</b>

*If p – value > 0.05 Threshold Level: Accept Ho: Not Significant*

A strong and statistically significant relationship was found between peers and self-esteem ( $r = 0.851$ ,  $p = 0.000$ ), leading to the rejection of the null hypothesis. This indicates that peer influence is significantly associated with the self-esteem of the respondents, suggesting that interactions and relationships with peers play an important role in shaping their self-esteem.

**Table 7.1** *Test of Significant Difference on the Self-Esteem of Obese respondents when grouped according to Age Profile*

Self Esteem	Group	Mean	SD	F value	p-value	Remarks
Positive	17 y/o	2.07	0.70	0.200	0.895	<i>Not significant</i>
	18 y/o	2.07	0.95			
	19 y/o	1.88	0.86			
	20 y/o	1.81	0.77			
Negative	17 y/o	1.48	0.32	0.183	0.907	<i>Not significant</i>
	18 y/o	1.56	0.61			
	19 y/o	1.38	0.43			
	20 y/o	1.59	0.63			

*If p – value > 0.05 Threshold Level: Accept Ho: Not Significant*

There was no significant difference in positive self-esteem among obese respondents when grouped according to age ( $F = 0.200$ ,  $p = 0.895$ ), leading to the acceptance of the null hypothesis. This indicates that age does not significantly influence positive self-esteem.

Similarly, no significant difference was found in negative self-esteem across age groups ( $F = 0.183$ ,  $p = 0.907$ ), also resulting in the acceptance of the null hypothesis. This suggests that age does not significantly affect the level of negative self-esteem among the respondents.

**Table 7.2** *Test of Significant Difference on the Self-Esteem of Obese respondents when grouped according to Gender Profile*

Self Esteem	Group	Mean	SD	t value	p-value	Remarks
Positive	Male	1.84	0.64	-0.845	0.405	<i>Not significant t</i>
	Female	2.09	0.96			
Negative	Male	1.49	0.52	-0.326	0.747	<i>Not significant t</i>
	Female	1.56	0.54			

*If p – value > 0.05 Threshold Level: Accept Ho: Not Significant*

There was no significant difference in positive self-esteem between male and female obese respondents ( $t = -0.845$ ,  $p = 0.405$ ), leading to the acceptance of the null hypothesis. This indicates that gender does not significantly influence positive self-esteem.

Similarly, no significant difference was found in negative self-esteem when grouped according to gender ( $t = -0.326$ ,  $p = 0.747$ ), also resulting in the acceptance of the null hypothesis. This suggests that gender does not significantly affect the negative self-esteem of the respondents.

**Table 7.3** *Test of Significant Difference on the Self-Esteem of Obese respondents when grouped according to BMI Profile*

Self Esteem	Group	Mean	SD	F value	p-value	Remarks
Positive	Obesity I	1.94	0.85	0.122	0.886	<i>Not significant</i>
	Obesity II	2.07	0.74			
	Obesity III	1.70				
Negative	Obesity I	1.39	0.47	3.292	0.053	<i>Not significant</i>
	Obesity II	1.91	0.53			
	Obesity III	1.80				

*If p – value > 0.05 Threshold Level: Accept Ho: Not Significant*

There was no significant difference in positive self-esteem among obese respondents when grouped according to BMI classification ( $F = 0.122$ ,  $p = 0.886$ ), leading to the acceptance of the null hypothesis. This indicates that BMI level does not significantly influence positive self-esteem.

Similarly, no significant difference was found in negative self-esteem across BMI groups ( $F = 3.292$ ,  $p = 0.053$ ), also resulting in the acceptance of the null hypothesis. This suggests that BMI classification does not significantly affect the negative self-esteem of the respondents.

#### IV. DISCUSSION

##### Analysis

The study titled “*The Association of Obesity on Self-Esteem among Selected Grade 12 students of Perpetual Help College of Manila*” revealed several important findings about the relationship between obesity and self-esteem.

Most of the respondents were 18 years old, male, and classified under Obese Class I. In terms of self-esteem, results showed that obese students generally have low self-esteem, as reflected by their disagreement with positive self-statements and strong agreement with negative self-



statements. This indicates that many of them view themselves negatively. When analyzing the relationship between obesity and self-esteem, the study found that obesity has a significant relationship with negative self-esteem, although its relationship with positive self-esteem is weak.

Furthermore, most respondents were found to have very low self-esteem based on standardized scoring. The study also showed that physical appearance and peer relationships strongly influence students' self-esteem, with both having strong and significant correlations. However, when grouped according to age, gender, and BMI classification, there were no significant differences in self-esteem levels.

Overall, the findings suggest that while obesity is linked to negative self-esteem, other factors like appearance perception and social relationships play a stronger role in shaping students' self-worth.

### **Conclusion**

The study shows that obesity is significantly associated with negative self-esteem among Grade 12 ABM students, especially in relation to physical appearance and peer relationships.

The findings are consistent with the Review of Related Literature, which explains that obesity is linked to poor body image, social stigma, and low self-worth among adolescents (Zartaloudi et al., 2023; Escoton et al., 2021; Corbita, 2023). The strong relationship between self-esteem, physical appearance, and peer influence also supports previous studies stating that social validation, media exposure, and body shaming greatly affect adolescents' confidence and mental health (Adjimi, 2021; Abante & Carballeira, 2023).

The use of a descriptive quantitative research design, purposive sampling of 30 obese students, and structured Likert-scale questionnaires made it possible to measure self-esteem levels and examine their relationship with obesity in a systematic and objective way. Statistical tools such as frequency, mean, and Pearson correlation using SPSS strengthened the accuracy of the results.

Although there were no significant differences when respondents were grouped according to age, gender, and BMI classification, the findings highlight that obesity, together with social and psychological factors, plays an important role in shaping students' self-esteem, reflecting both the literature and the research methods used in the study.

### **Recommendations**

Based on the findings of this study, it is recommended that schools implement comprehensive self-esteem enhancement programs that focus on body positivity, mental health awareness, and emotional resilience. Since results show that obesity has a negative impact on students' self-perception, particularly on how they view their physical appearance and peer interactions, guidance offices should initiate regular wellness sessions, group counseling, and awareness

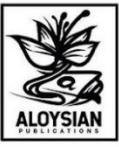


campaigns that promote acceptance, kindness, and self-worth, regardless of body size. Additionally, seminars that address the harmful effects of body shaming, peer pressure, and negative self-comparisons should be integrated into the curriculum or extra-curricular offerings. This will help reduce internalized stigma and empower students to embrace their individuality.

Moreover, it is highly encouraged that parents and teachers work collaboratively to foster a supportive environment both at home and in school. Since family encouragement and peer relationships were shown to help improve self-esteem, reinforcing positive reinforcement at home and promoting inclusive peer interactions in school can serve as protective factors for students with body image concerns. Schools may also consider organizing fitness and health education programs that focus not on weight loss, but on overall physical and mental well-being, thereby shifting the focus from appearance to health. Finally, future researchers are encouraged to explore the long-term psychological effects of obesity and the effectiveness of school-based interventions, as this can guide the development of more targeted programs for adolescent learners.

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