



**ARTICLE RESEARCH**

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**Obesity Incidence with Body Image in Female Adolescents**

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**ABSTRACT**

Adolescence is when individuals explore their identities and increase their self-understanding regarding self-image. Body image increases with the individual's satisfaction, who can accept the state of the adolescent's body. One thing that can affect adolescents' body image is obesity. This study aims to determine the relationship between obesity and body image in young women at Health Vocational School, Tangerang City. The research design used is a descriptive correlation with a cross-sectional approach—data collection using the BSQ-34 questionnaire and obesity observation sheet. A total sampling technique was used to take a sample of 35 respondents. The analysis technique used in this study is Chi-Square. This study shows a relationship between obesity and body image among young women in Health Vocational School, Tangerang City. This study shows that obesity is related to body image in young women. Adolescents are expected to behave positively towards their bodies to not cause a negative body image.

Keywords: Adolescents; Body Image; Obesity

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## INTRODUCTION

Human development is a life process of psychosocial development and change. At the stage of adolescent development, starting from the search for identity, if a teenager is in search of identity associated with a good environment, then a good identity will also be created. <sup>(1)</sup> One of the important psychosocial aspects of adolescence is individual development and identity. Adolescents, during the process of identity formation, often encounter problems regarding meeting needs due to changes that occur during adolescence. <sup>(2)</sup> The problems faced are due to the nature of adolescents who tend to change. In addition to the formation of individual development and self-identity, adolescents experience various physical, emotional, and psychological changes.

Physical changes that occur in adolescents include the growth of the reproductive organs towards maturity, these changes can be seen in the signs of primary sex and secondary sex. <sup>(3)</sup> Apart from physical changes, can also be seen from emotional changes in adolescents. Adolescents still often show emotional instability, as adolescents often appear restless, easily offended, daydreaming, and sad, but on the other hand, adolescents will feel happy, laugh, or get angry. <sup>(3,4)</sup> The psychological changes that occur in adolescents are an attitude of protest against parents, the ability to think abstractly, behavior that is still changing, and preoccupation with one's own body, a teenager's body like this experiences rapid changes. <sup>(1,4)</sup> These changes are of particular concern to adolescents, one of which is to recognize body shape or body image.

Based on data from the World Health Organization (WHO) in 2016, more than 1.9 billion (39%) of youth aged 18 years and over are overweight. And as many as 650 million (13%) suffer from obesity. The highest prevalence of obesity in the Southeast Asia region in 2018 occurred in Malaysia (32%) and Indonesia itself was in fourth place (14.3%). <sup>(5)</sup> As for obesity data on adolescents in Indonesia, obesity in adolescents in Indonesia is still very high. Regional Health Research (RISKESDAS) 2018, the prevalence of obesity in Indonesia in adolescents aged 13-15 years is 16.0%, and obesity in adolescents aged 16-18 is around 13.5%. <sup>(6)</sup> In addition, data from Banten Province Health Profile (2019) shows that the number of obese people in Banten Province is 284,519. While the incidence of obesity in Banten province in adolescents aged 13-15 years is around 10.4%. Consists of 7.9% fat and 2.5% very fat (obese). <sup>(7)</sup>

Banten Province has 8 sub-districts with the prevalence of obesity in the first place, namely in Tangerang Regency, as many as 236,094 people; in second place who have obesity, namely in Tangerang City, 15,989 people; in third place who have obesity, namely in South Tangerang City as many as 12,094 people. <sup>(7)</sup> Across regions, obesity is higher in women than men. <sup>(8,9)</sup> Women are more obese than men.

Women are more prone to obesity because they have a lower metabolism than men. <sup>(10,11)</sup> Many adolescent girls who are obese are dissatisfied with their body shape, especially with their weight, which will affect their body image. <sup>(12)</sup> Body image is a picture that a person has about his physique. The

physique that is meant here is the body shape of a teenager because, during this, youth will experience puberty, when a teenager must be ready to accept changes in himself. <sup>(9,13)</sup> Every teenager has an ideal self-image that is what he wants, including his body shape. The discrepancy between the body shape perceived by adolescents and the ideal body shape will lead to dissatisfaction with their bodies. <sup>(12,14)</sup> Many factors cause adolescents to feel dissatisfied with their body shape.

Factors that influence body image in adolescents are the influence of body weight and perceptions of being fat/thin, culture, life cycle, socialization, self-concept, and gender roles.<sup>(15)</sup> Based on these factors, the most influential factor on adolescent body image is changes in body weight and degree of thinness or obesity (obesity).<sup>(10,14,16)</sup> Obesity is caused by an imbalance between calorie consumption and energy requirements, where consumption is too much compared to energy use. If obesity occurs in adolescents, especially young women, then these adolescents will grow into teenagers who lack confidence.

Based on the results of a preliminary study on 10 Health Vocational School students in Tangerang City. Using the interview technique, it was found that seven female students who were obese said they found it difficult to lose weight, they were not confident about their body condition, and it was difficult to find clothes that fit their body shape. From the results of the interviews, the researchers were interested in examining the relationship between obesity and body image in young women.

## METHOD

This study used quantitative research with analytical observation using a cross-sectional design. Researchers carry out measurements or research at one time.<sup>(17)</sup> This design is used to determine the relationship between obesity and body image in female adolescents identified at a one-time unit. The method used in sampling in this study is Non-Probability Sampling using the Total Sampling method. The population in this study were all female students who had BMI values in the obesity category. The research was conducted at a Health Vocational School in Tangerang City which was conducted in July 2020. This study used the BSQ-34 questionnaire (Body Shape Questionnaire-34) and observation sheets to assess obesity levels with 35 samples. Ethically worthy research with No.013/PE/KE/FKK-UMJ/VII/2020.

## RESULT

### Univariate Analysis

Table 1. Distribution of the frequency of respondents on the characteristics of adolescent development at the Tangerang City Health Vocational School 2020 (n=35)

Age	n	%
Early adolescence (11-13)	0	0
Middle adolescence (14-15)	4	25
Late adolescence (16-18)	31	75
<b>Total</b>	<b>35</b>	<b>100</b>

Table 1 shows that of the 35 respondents to Health Vocational School students, based on the age of majority in their late teens, there were 31 respondents (75%).

Table 2. Obesity frequency distribution for female students at the Tangerang City Health Vocational School in 2020 (n=35)

Variable Obesity	n	%
Obesity I	22	62,9
Obesity II	13	37,1
<b>Total</b>	<b>35</b>	<b>100</b>

Based on table 2, the results of the study obtained obesity from 35 female respondents at the Tangerang City Health Vocational School. Most of the results obtained with the results of the obesity category I were 22 respondents (62.9%).

Table 3. Body image frequency distribution of female students at Tangerang City Health Vocational School in 2020 (n=35)

Variable of Body Image	n	%
<i>Body Image Positive</i>	20	57,1
<i>Body Image Negative</i>	15	42,9
<b>Total</b>	<b>35</b>	<b>100</b>

Based on table 3, it was found that the majority experienced a positive body image with a total of 20 respondents (57.1%) while those who experienced a negative body image with a total of 15 respondents (42.9%).

## Bivariate Analysis

Table 4. The Relationship between Obesity and Body Image in Young Girls at Health Vocational Schools in Tangerang City (n=35)

Obesity	<i>Body Image</i>				Total	OR	P Value
	<i>Body Image Positive</i>		<i>Body Image Negative</i>				
	n	%	n	%			
Obesity I	16	45,7	6	17,1	22	62,9	6.000 0,01
Obesity II	4	11,4	9	25,7	13	37	
<b>Total</b>					<b>35</b>	<b>100</b>	

The results showed that of the 35 respondents who had obesity I, there were 22 respondents (62.9%), there were 16 respondents (45.7%) had positive body image results, and six respondents (17.1%) had negative body image results. While those with obesity II were 13 respondents (37.1%), there were four respondents (11.4%) with positive body image results and nine respondents (25.7%) with negative body image results. Statistical test results obtained by chi-square test obtained p value = 0.01, meaning p value  $\leq 0.05$ . It can be stated that the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_a$ ) is accepted. It can be concluded that there is a relationship between obesity and body image in young women at Tangerang City Health Vocational School.

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## DISCUSSION

The study results based on Table 1 show that the description of respondents is in their late teens. According to Lupitasari, which is the final stage of adolescence, most of them begin to pay attention to their appearance and ideal body weight.<sup>(18)</sup> The results of other studies also explain the problems that occur in adolescence, one of which is physical changes and determining the future.<sup>(14,19)</sup> This shows that there are more people aged 17 to 19 than those above them. Therefore, late adolescence to early adulthood can be used as a stage of strengthening the establishment of life, especially for female students, for the formation of the future.

The research found that most data on obesity results in young women were in the obesity category 1 (table 2). According to WHO (2021), obesity is classified into three groups, namely obesity I (mild), which is about 20-40% overweight; obesity II (moderate), which is about 41-100% overweight; and obesity III (severe), which is overweight around >100%.<sup>(5)</sup> Obesity is a complex disorder of appetite regulation and energy metabolism controlled by several specific biological factors. Genetic factors are known to be very influential in this regard. Physiologically, obesity is a condition with abnormal or excessive fat accumulation in adipose tissue that can interfere with health.<sup>(9,20)</sup> Researchers argue that obesity can be due to an imbalance in the amount of food eaten with activity, so adolescents easily gain excess weight. This is also in line with research by Wulandari et al.; it was found that there were 34 respondents (38.2%) out of 89 people.<sup>(21)</sup> In addition, obesity is also influenced by diet, physical activity, pocket money, and parents who are obese.<sup>(9,20,21)</sup>

The description of body image in this study can be seen in Table 3. Body image is a collection of conscious and unconscious individual attitudes towards their body, including past and present perceptions and feelings about the body's structure, form, and function.<sup>(22)</sup> This is because adolescents are vulnerable to being influenced by the media, which often shows models and actresses with slim and attractive body shapes so that they can influence them to care about their body shape and desire to lose weight to the fullest.<sup>(23)</sup> This research is in line with previous research, namely research conducted by Sholikhah, where the results showed that the majority of respondents had a positive body image perception, namely 44 respondents (68.75%), there were 20 respondents (31.25%) who had a negative body image.<sup>(24)</sup> In addition, research conducted by Rosidawati et al. stated that as many as 30 respondents resulted, with 21 respondents having a negative body image and ten respondents having a positive body image.<sup>(25)</sup> Researchers argue that a person with a positive body image has a positive picture of his body, usually characterized by feelings of individual satisfaction in accepting his body. In contrast, dissatisfaction with his body usually describes someone with a negative body image. Treat people who have a negative body image makes confidence decrease, bullying occurs from his friends and more withdrawn from social.<sup>(26,27)</sup>

The relationship between obesity and body image in young women in this study, according to statistics, can be seen in table 4; it can be concluded that there is a relationship between the two variables. The results of the study by Astutik et al. found that 59 people (93.6%) with obesity had a positive body

image and four people (6.4%) experienced a negative body image.<sup>(28)</sup> According to Lestari et al., it was found that obesity in adolescents is related to body image; 7 people with obesity have a good body image, while nine people with obesity have a negative body image. This shows that adolescents with a positive body image have a positive picture of their body, usually marked by an individual's satisfaction in accepting their body. Adolescents who feel dissatisfied with the changes that occur to them, especially for body shapes that are supposed to be less than ideal, have a negative body image perception. Meanwhile, adolescents who are satisfied with their appearance and body shape and have never had a problem with changes in themselves mean that a person has a positive body image.<sup>(12,14)</sup> Factors that affect body image can occur in the human life span.

Body image in individuals is influenced by other factors such as self-concept, self-esteem, and the physical condition of the person. In addition, factors such as education, environment, and work can also affect a person's body image.<sup>(28,29)</sup> This suggests that body image can experience changes throughout human life. Changes in body image are feedback from socialization with other people, the prevailing physical and cultural environment, physical disabilities, and self-confidence.<sup>(12,20,22,24,29)</sup> So, obesity that occurs in young women will affect a person's self-confidence and body image. Obesity is one of the conditions that cause a young woman to feel insecure about herself and inferior, and it can affect her daily life patterns. Therefore, it is necessary to have assistance from families with young women with obesity.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this study, it was concluded that the incidence of obesity in young women was included in obesity one, and the body image of the respondents was positive. So, it can be concluded that there is a relationship between body image and the incidence of obesity in young women. Suggestions for further research are to be able to assess the factors of obesity in young women and their impact.

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