The Relationship Between Body Image Satisfaction and Nutritional Status in Female Students of SMAN 5

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Abstract

In the adolescent phase, there is physical, social, and psychological development and growth. These changes will affect the way adolescents view and behave towards their body, known as body image. Appearance is important for adolescent girls, so most adolescent girls try to meet society's beauty standards by fasting, dieting, exercising, taking laxatives, and diet pills. The behavior of restricting diet and living an unhealthy lifestyle can affect adolescent nutrition, such as anemia, malnutrition, and obesity. This study aims to determine the relationship between body image satisfaction and nutritional status in SMA Negeri 5 Palu students. This study uses an observational analysis method with a cross-sectional design. The sample in this study amounted to 92 respondents. The sampling technique used was proportionate stratified random sampling. The bivariate analysis test used the Spearman test. The results of the Spearman test showed a p-value = 0.097 (p>0.05), which means that there is no relationship between body image satisfaction and nutritional status in SMA Negeri 5 Palu students. There is no relationship between body image satisfaction and nutritional status in female students of SMA Negeri 5 Palu.

Keywords: Boby image, nutritional status, female, lifestyle, dieting

Introduction

According to the World Health Organization (WHO), adolescents are people aged between 10 and 19 years (Pamirma & Satwika, 2022). In the adolescent phase, there is development and growth in physical, social, and psychological aspects (Malasari & Mukhlis, 2022). These changes will affect the way adolescents view and behave towards their bodies, known as body image (Natarijadi & Hadiati, 2021). Body image is a person's personal perception, thoughts, and feelings about their body. Someone with a satisfied body image will feel confident about their appearance and accept their physical condition and rarely compare their physique with others. In contrast, people who are not satisfied with their body image tend to be insecure about their appearance and less accepting of their physical condition, and often compare their physique with others (Alfita & Sianipar, 2021).

In Indonesia, adolescent girls feel pressure to conform to beauty standards due to media promotion of weight and skin color. In addition to media influence, teasing from friends or family also has a major impact (Garbett et al., 2023). Adolescents who are dissatisfied with their body image tend to try to fast, diet, exercise, take laxatives, and use diet pills. In addition to these efforts, there can be changes in behavior such as ignoring meal times, smoking, extreme diets, and regurgitating food that has been eaten. These inappropriate behaviors can affect psychological factors that can lead to eating disorders such as anorexia and bulimia. The behavior of limiting diet and living an unhealthy lifestyle can have an effect on adolescent nutrition, such as anemia, malnutrition, and obesity (Marlina & Ernalia, 2020).

In adolescence, nutrition plays an important role in health indicators. The onset of nutritional problems in adolescence will affect cognitive development and productivity (Charina et al., 2022). Nutritional status is a measure of a person's body condition, seen from the food they consume and how these nutrients are used in the body (Sary, 2021). The nutritional status of adolescents needs to be considered because it has a significant effect on the growth and development of the body as an adult (Arieska, 2020).

Riskesdas reported that the prevalence of nutritional status (IMT/U) among adolescents aged 16-18 years in Indonesia was 1.4% very thin, 6.7% thin, 78.3% normal, 9.5% fat, and 4.0% obese. The results of the Riskesdas report 2018, the prevalence of nutritional status (IMT/U) in adolescents aged

16-18 years in Central Sulawesi province is 2.2% very thin, 7.0% thin, 79.1% normal, 8.1% fat, 3.0% obese (Kemenkes, 2019b). The results of the Riskesdas report 2018, the prevalence of nutritional status (IMT/U) in adolescents aged 16-18 years in Palu city was 5.68% skinny, 10.14% thin, 69.98% normal, 14.20% fat, and 0.00% obesity (Kemenkes, 2019a). Based on previous research conducted by Hartini (2023) regarding the analysis of factors that influence food selection in adolescents with normal and abnormal nutritional status in Palu City conducted at SMA Negeri 5 Palu, it was obtained that adolescents aged 15-18 years had a normal nutritional status of 58.3% and abnormal 41.7%. Observing these dynamics in the school environment, especially among high school students, can provide valuable insights into how body image and nutritional health intersect. Based on this context, the researcher is motivated to undertake a study entitled "The Relationship between Body Image Satisfaction and Nutritional Status among Students of SMA Negeri 5 Palu." This study aims to explore whether a significant correlation exists between how students perceive their body image and their actual nutritional status, with the broader goal of informing future interventions that promote healthier self-perception and nutritional practices. This research forms the foundation and primary focus of the present paper's introduction, setting the stage for a deeper investigation into this important public health concern.

Methods

This study used an analytic observational method with a cross-sectional approach. The population in this study was all female students of SMA Negeri 5 Palu. The sampling technique in this study was proportionate stratified random sampling. The sample in this study was female students who met the inclusion criteria. Samples were taken from class X (33 students), XI (28 students), and XII (31 students) in a balanced manner so that a sample representing the entire population could be obtained. Body image was measured using the BSQ-34 questionnaire, which is composed of 34 items with five alternate choices: Never, Rarely, Sometimes, Often, Very often, and Always. Nutritional status was measured using digital scales and microtoise and then calculated using the IMT formula, and then compared with the IMT/U anthropometric standard.

Results and Discussion

Univariate Analysis

Based on **Table 1**, it can be seen that the characteristics of respondents based on age are in the range of 14-18 years. Respondents aged 14 years totalled five respondents (5.4%), aged 15 years

totalled 22 respondents (23.9%), 16 years old amounted to 31 respondents (33.7%), and 17 years old. 30 respondents (32.6%), and 18 years old amounted to 4 respondents (4.3%) out of a total of 92 respondents.

Table 1. Frequency distribution of respondent characteristics

Category	Frequency	Percentage (%)
Age		
14 years old	5	5.4
15 years old	22	23.9
16 years old	31	33.7
17 years old	30	32.6
19 years old	4	4.3
Body Image		
Not satisfied	12	13
Satisfied	80	87
Nutritional Status		
Malnutrion	1	1.1
Undernourished	5	5.4
Good Nutrition	74	80.4
More Nutrition	8	8.7
Obesity	4	4.3

(Source: Prima Data 2024)

Characteristics of respondents based on body image. Of the respondents, 12 (13%) had an unsatisfying body image; meanwhile, 80 respondents (87%) had a body image satisfaction. Characteristics of respondents Based on nutritional status, it was found that respondents who had poor nutrition amounted to 1 respondent (1.1%), undernutrition amounted to 5 respondents (5.4%), 74 respondents (80.4%) were well-nourished, 8 respondents (8.7%) were over-nourished, and 8 respondents (8.7%) were under nourished. Obesity amounted to 4 respondents (4.3%).

Bivariate Analysis

Table 2. Relationship between body image satisfaction and nutritional status in SMAN 5 Palu Students

Body Image	Nutritional Status					p value
	Bad	Less	Good	More	Obesity	
NS	0	0	9	1	2	
	0%	0%	75%	83%	16.7%	0.097
S	1	5	65	7	2	
	1.3%	6.3%	81.2%	8.8%	2.5%	

(Source: Prima Data 2024)

Based on **Table 2**, it can be seen that respondents with unsatisfied body image with poor nutritional status amounted to 0 respondents (0.0%), respondents with unsatisfied body image with deficient nutritional status amounted to 0 respondents (0.0%), respondents with unsatisfied body image with good nutritional status amounted to 9 respondents (75.0%), respondents with

unsatisfied body image with overweight nutritional status amounted to 1 respondent (8.3%). Respondents with an unsatisfactory body image and an obese nutritional status amounted to 2 respondents (16.7%). Meanwhile, respondents with satisfied body image with poor nutritional status amounted to 1 respondent (1.3%), respondents with satisfied body image with undernourished status amounted to 5 respondents (6.3%), respondents with satisfied body image with good nutritional status amounted to 65 respondents (81.3%), respondents with satisfied body image with over nourished status amounted to 7 respondents (8.8%). Respondents with a satisfied body image with an obese nutritional status amounted to 2 respondents (2.5%). The results of bivariate analysis conducted using the Spearman test obtained a *p-value* = 0.097 (p>0.05). This means that there is no relationship between body image satisfaction and nutritional status.

Based on the research conducted, the results of univariate analysis found that most respondents (87%) were satisfied with their body image. This shows that the respondent already considers the shape or size of his body to be by his wishes. In addition, there are still respondents (13%) who feel dissatisfied with their body image. This indicates that the respondent's opinion about the shape or size of his body does not follow his wishes. The results obtained for nutritional status are that most respondents (80.4%) have good nutritional status.

The results of bivariate analysis that have been done using the Spearman test obtained a *p-value* = 0.097 (p>0.05). These results indicate that there is no relationship between body image satisfaction and nutritional status in female students of SMAN 5 Palu. The absence of a relationship between body image satisfaction and nutritional status is because various other factors besides body image can influence nutritional status. The results of this study are in line with research conducted by Hasanah (2022) on the relationship between nutritional knowledge, body image, and fast-food consumption with the nutritional status of adolescent girls in Gresik District High School. The Spearman test results obtained a *p-value* = 0.445 (p>0.05), which means there is no significant relationship between body image and nutritional status. In addition, the results of this study are also in line with research conducted by Shofia (2024) on the relationship between body image and knowledge of balanced nutrition with the nutritional status of adolescent girls at MA Muhammadiyah Lingadan Tolitoli. The results of the Spearman test obtained *a p-value = 0.384 (p>0.05),* which means there is no relationship between body image and nutritional status of adolescent girls.

The aspects of body image are perception (how a person views the size and shape of his/her body), attitude (a person's thoughts about his/her body and the extent to which his/her body conforms to the ideal body), and behavior (limited or excessive eating, excessive exercise and dieting). These three aspects play a role in the development of a person's body image (Saylan &Sylvia, 2009). Surroundings such as friends, family, and even through social media can influence body image (Wangu et al., 2023).

Based on the research that has been done, respondents who are satisfied with their body image have poor nutritional status 1 respondent (1.3%), poor nutritional status 5 respondents (6.3%), good nutritional status 65 respondents (81.3%), more nutritional status 7 respondents (8.8%) and obesity 2 respondents (2.5%). This is due to high self-confidence, so that they can better accept the shape or size of their body. Adolescents who are satisfied with their body image tend to have high self-confidence, do not think too much about other people's comments about their appearance, and accept their strengths and weaknesses. Meanwhile, adolescents who are not satisfied with their body image will feel less confident and usually always think about other people's opinions about their appearance. One of the factors that influences self-confidence in adolescents is body image (Siswadi et al., 2020). Based on the research that has been done, respondents who are dissatisfied with their body image have good nutritional status, namely 9 respondents (75.0%). This shows that someone who is not satisfied with their body image will not necessarily go on an extreme diet or excessive exercise, which will affect their nutritional status. Nutritional status is directly influenced by physical activity, food intake, infectious diseases, and so on. The more frequent activities, the more calories used, will also be more so that the body can reach the ideal weight or be thinner. Meanwhile, if you do less activity, the calories in the body will be stored, which can cause excess weight (Rohani, 2023). The occurrence of underweight or overweight in a person will affect their nutritional status (Hartini et al., 2022). Food intake that is absorbed will be processed by the body, which will be used to carry out daily activities. If consuming food and beverages that are not balanced with what the body needs for an extended period of time, it can affect a person's nutritional status. The imbalance that occurs will cause malnutrition (Fatikasari et al., 2022). Infectious diseases and nutritional status affect each other. If a person has an infection, malnutrition may occur. Conversely, someone who is malnourished will experience a decrease in the immune system, making them susceptible to infection (Feoh et al., 2024).

Diet can also affect nutritional status. If consuming food in sufficient quantities, varied and balanced types of food, the body will obtain the various nutrients needed so that it will achieve optimal nutritional conditions. A balanced diet means regulating the amount and type of food consumed every day that has nutrients such as carbohydrates, fats, proteins, vitamins, minerals, and water as needed (Putri & Rachman, 2023). Diet is influenced by nutritional knowledge. A person who has nutritional knowledge will help them in choosing healthy foods for consumption as well as food ingredients that need to be avoided or limited (Herviana et al., 2022). Environments such as peers also have an important influence on choosing food. Teenagers usually gather with their friends and do activities such as eating together, which will affect food choices both inside and outside school. This is because adolescents want to be liked and considered by their peers (Yarah & Benita, 2021). Eating behavior disorders have an influence on the nutritional status of adolescents. Eating disorders that are often found in adolescent girls are *anorexia* and *bulimia nervosa* (Azzahara & Dhanny, 2021).

Conclusions

There is no relationship between body image satisfaction and nutritional status in SMA Negeri 5 Palu students, as evidenced by the *p-value* = 0.097 (p>0.05).

For schools, it is expected to provide socialization about body image so that students can get to know and understand more about body image, and provide weight and height measuring devices so that students can monitor their nutritional status. For researchers, it is expected that they will be able to discuss other factors that may affect the nutritional status of adolescents and select a sample that is more varied in nutritional status.

Conflict of Interest

There is no conflict of interest in this study.

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