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Analysis of The Relationship Between The Level of Understanding of A Healthy Diet and The Perception of Body Image in Female Students

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ABSTRACT

This study aims to analyze the relationship between the level of understanding of a healthy diet and the perception of body image among female university students. Utilizing a quantitative descriptive approach, the research involved 90 female students selected through simple random sampling. Data were collected through questionnaires based on the Theory of Planned Behavior (TPB) and the Body-Self Relations Questionnaire (MBSRQ) to measure dietary knowledge and body image perception, respectively. Data analysis was conducted using the Spearman's rho correlation test due to non-normal distribution in one variable. The results revealed a very strong and significant positive correlation ($r = 0.968$, $p < 0.001$) between the level of dietary knowledge and positive body image perception. These findings indicate that a higher understanding of healthy dietary practices is associated with more positive and realistic body image perceptions among female students. The study emphasizes the critical role of nutritional education in fostering healthy lifestyle habits and improving psychological well-being, suggesting the need for integrated health and nutrition education programs within higher education institutions to support students' holistic development.

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1. INTRODUCTION

Health is a gift from God, symbolizing His affection toward all living beings. As believers, it is our duty to be grateful for the physical well-being bestowed upon us. The term "health" encompasses a wide spectrum of meanings. According to the World Health Organization (WHO) as cited in [Chandra et al. \(2017\)](#), health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. However, many individuals tend to overlook the importance of being thankful for the health they enjoy. This notion is reflected in a hadith narrated by Al-Bukhari (Hadith No. 6412), at-Tirmidzi (2304), and Ibn Majah (4170), as cited in [Ferdiana et al. \(2023\)](#), where the Prophet Muhammad (peace be upon him) said: "There are two blessings that many people do not appreciate: health and free time." This hadith emphasizes the need for humans to always be grateful for their health.

To perform daily activities efficiently, one requires not only a healthy body but also a strong and balanced soul. This is reflected in the widely known proverb, "In a healthy body, there is a strong soul," suggesting the ideal of a well-rounded individual who thrives physically, mentally, and spiritually. Nonetheless, [Azwar \(2010\)](#) highlights that physical appearance alone is not a sufficient indicator of good health, as the concept of health is broad and multifaceted. One significant factor that contributes to health maintenance is lifestyle. Among various lifestyle choices, a healthy lifestyle serves as a determinant of one's overall health.

A healthy lifestyle plays a crucial role in shaping human health. According to [Septianto et al. \(2020\)](#), a healthy body becomes a valuable asset in achieving success and supports individuals in carrying out daily tasks. Among the many practices of a healthy lifestyle, diet holds a significant position. Diet, in this context, is not solely aimed at weight loss, but also at maintaining health, enhancing well-being, and preventing nutrition-related diseases, as explained by Barasi (2007) in [Herawati, Manaf, and Dewi \(2023\)](#).

In today's society, dieting has become a common practice. It refers to deliberate efforts to manage food intake, primarily to lose weight, as described by [Polivy, Herman, and Warsh \(1978\)](#). [Husna \(2013\)](#) categorizes diets into two types: healthy and unhealthy diets. A healthy diet typically involves activities such as reducing caloric intake, controlling portion sizes, avoiding excessive snacking, and engaging in regular physical activity. In contrast, an unhealthy diet may involve skipping meals or consuming slimming medications, practices which are potentially harmful to the body. Hence, adopting a healthy dietary pattern is essential to avoid adverse health outcomes.

Nevertheless, dieting behaviors are increasingly misinterpreted, particularly when used solely as a means to achieve an "ideal" body shape. According to [Permatasari \(2016\)](#), adolescents aged 16 to 19 often engage in dieting because of their self-perception regarding body image, where the "ideal" body is perceived as slim and proportionate. This issue is further explored by [Dariyo \(2003\)](#), as cited in [Manurung \(2023\)](#), who states that such concerns arise during early adulthood due to significant physical changes, especially among women. Negative perceptions of body image may lead individuals to feel dissatisfied with their bodies, which in turn can hinder interpersonal relationships and limit the development of healthy social interactions, as emphasized by [Rombe \(2013\)](#).

Many adolescents, as noted by Hurlock (2017) in [Herawati, Manaf, and Dewi \(2023\)](#), adopt unhealthy eating habits. These include irregular eating patterns, skipping meals, overreliance on fast food, intentional fasting, the use of diet pills or laxatives, and even binge eating followed by purging. Such behaviors are often rooted in negative body image perceptions and are commonly observed in females, as reported by Najam and Ashfaq (2012). [Neumark-Sztainer and Hannan \(2000\)](#), through a study involving 4,763 middle and high school students in St. Paul and Minneapolis, USA, discovered that 56.9% of adolescent girls and 32.7% of boys had engaged in unhealthy dieting behaviors. This data reinforces the prevalence of problematic dietary habits among adolescents regardless of gender.

Understanding the relationship between healthy diets and body image is crucial. Individuals are encouraged to appreciate their physical appearance, adopt positive behaviors, and cultivate healthy social relationships—practices that collectively contribute to the development of a positive body image ([Yulianti and Indriati, 2015](#)). Therefore, this study aims to analyze the extent to which female students understand the concept of a healthy diet in relation to their perceptions of body image.

2. METHODS

This study uses a quantitative approach with descriptive methods to describe female students' understanding of healthy diet behavior towards body image perceptions. The descriptive method was chosen because it is able to describe phenomena that occur in everyday life systematically, factually, and accurately. The quantitative approach is used because it is able to present data in the form of numbers and percentages, thus supporting clarity in the interpretation of results. This combination of methods is considered appropriate because it is able to explain the phenomenon studied in detail in the form of in-depth statistical data.

The population in this study were all students of Universitas Pendidikan Indonesia with a total of 90 people. Sampling was done with probability sampling technique using simple random sampling approach. This technique was chosen because it provides an equal opportunity for each member of the population to become a sample, and allows researchers to obtain representative data. The sample was taken randomly through distributing questionnaires to female students who are members of the student association of the relevant study program. The characteristics of the respondents in this study varied, with the majority age ranging from 19 to 21 years, height mostly in the range of 150-164 cm, and weight in the range of 45-59 kg. The total number of respondents who successfully filled out the questionnaire was 90 people.

Table 1. Age classification of research sample

Age Range	n
18 Years Old	4
19 Years Old	20
20 Years Old	25
21 Years Old	33
22 Years Old	4
23 Years Old	2

Table 2. Height classification of research sample

Height Range (cm)	n
<150 cm	0
150–154 cm	20
155–159 cm	19
160–164 cm	20
165–169 cm	9
170–174 cm	6
175–179 cm	5
≥180 cm	5

Table 3. Weight classification of research sample

Weight Range (kg)	n
<45 kg	8
45–49 kg	17
50–54 kg	20
55–59 kg	18
60–64 kg	9
65–69 kg	9
70–74 kg	6
≥75 kg	3

The instrument used in this study was developed based on the Theory of Planned Behavior (TPB) framework developed by Jo d'Ardenne and Sally McManus (2011). The questionnaire consisted of four main sections, namely demographic data (age, height, and weight), daily activities (sports and study activities), dietary habits (eating patterns, fast food consumption, and knowledge about low-calorie foods), and health knowledge (understanding of body mass index or BMI and general health). In addition, to measure body image perceptions, Cash's (2016) Body-Self Relations Questionnaire (MBSRQ) was used, which consists of two subscales, namely Appearance Evaluation (AE), which measures the level of satisfaction with appearance, and Appearance Orientation (AO), which measures the extent to which individuals care and strive to improve their appearance.

All instruments were distributed online through the Google Form platform. The collected data were then processed using SPSS and Microsoft Excel software. The stages of

data analysis included classification, descriptive statistical processing, and interpretation to obtain an overview of the relationship between female college students' understanding of healthy diets and their perceptions of body image.

3. RESULT

Tests of Normality		
Kolmogorov-Smirnov ^a		
Statistic	df	Sig.
.093	90	.051
.131	90	<.001

a. Lilliefors Significance Correction

Correlations

		Overall Dietary Knowledge	Body Image Perception
Spearman's rho	Overall Dietary Knowledge	1.000	.968**
	Correlation Coefficient		
	Sig. (1-tailed)	.	<.001
	N	90	90
	Body Image Perception	.968**	1.000
	Correlation Coefficient		
	Sig. (1-tailed)	<.001	.
	N	90	90

** . Correlation is significant at the 0.01 level (1-tailed).

Based on the results of the Kolmogorov-Smirnov normality test, it is known that the Overall Dietary Knowledge variable has a significance value of 0.051, which is greater than the significance level of 0.05. This indicates that the data on these variables can be said to be normally distributed. In contrast, the Body Image Perception variable has a significance value of <0.001, which is below the 0.05 limit, so it can be concluded that the data on this variable is not normally distributed. The non-fulfillment of the normality assumption in one of the variables causes the selection of analytical techniques to be carried out carefully. Therefore, the analysis of the relationship between variables in this study used Spearman's rho correlation test, which is a non-parametric test and is appropriate when one or both variables are not normally distributed. The selection of this test supports the validity of the analysis results obtained in the study.

The results of the correlation analysis using the Spearman test show that there is a very strong and significant relationship between the Overall Diet Knowledge variable and Body Image Perception, indicated by the correlation coefficient value of $r = 0.968$ with a significance level (Sig. 1-tailed) <0.001 . A correlation value close to 1 indicates a very high strength of the relationship in a positive direction, which means that the higher the students' level of understanding of a healthy diet, the more positive their perception of their body image. The very small significance value (<0.001) provides statistical evidence that this relationship does not occur by chance, but is a scientifically real relationship. Thus, the null hypothesis (H_0) stating that there is no relationship between the two variables is rejected, and the alternative hypothesis (H_1) is accepted. The findings corroborate that good dietary knowledge plays an important role in shaping healthy and positive body perceptions in female university students, especially in the context of health and lifestyle that is more aware of the importance of nutritional balance and realistic body image.

4. DISCUSSION

The Spearman correlation result of $r = 0.968$ indicates a very strong and significant relationship between the level of knowledge about healthy diet and body image perception in female college students. This very high correlation indicates that the higher a person's understanding of the principles of a healthy diet, the positive perception of his body also tends to increase. This illustrates that knowledge about healthy diet not only serves as a basis for choosing the right diet, but also plays an important role in shaping the way individuals view and value their own bodies.

This finding is in line with the health psychology approach which states that increased nutritional literacy can strengthen healthy and realistic self-perceptions (Syafnita, 2023). Individuals with good knowledge of healthy diets generally focus not only on the weight loss aspect, but also understand the importance of nutritional balance for long-term health, including physical fitness and overall quality of life. As such, they tend to assess their bodies more objectively and positively, without being unduly influenced by social pressure or unrealistic beauty standards.

In the socio-cultural context, women, especially in their late teens to early adulthood such as university students, are more vulnerable to external pressures related to body image. Mass media, social media, and social environments often shape certain beauty standards - such as a slim body, fair skin, and visually appealing appearance - which can affect body perception and lower self-esteem if these standards are not met. This is reinforced by Yanuarti et al. (2022) who stated that a low understanding of the concept of a realistic healthy body can lead to negative perceptions of one's own body, especially if individuals experience a discrepancy between the actual body shape and the ideal body according to social standards.

Research by (Khan et al., 2011; Neighbors & Sobal, 2007; Radwan et al., 2019) also confirmed that female students showed a higher prevalence of body image dissatisfaction (BID) than male students. This shows that body dissatisfaction is a serious issue that psychologically affects more women. In addition, (Alharballeh & Dodeen, 2023) study showed that increased knowledge of healthy diet can contribute positively to the formation of healthier and more realistic body image perceptions, in line with the findings in this study.

From a health education perspective, these results provide important evidence that nutrition and healthy diet education instilled early on, especially in higher education settings, has great potential in fostering healthy body esteem. Correct information about a balanced diet, the risks of extreme diets, and the importance of maintaining a balance between physical and mental health are important elements in strengthening positive body perceptions.

Therefore, the results of this study not only reinforce previous findings, but also emphasize the importance of integrating education about healthy diet in campus curriculum or health promotion programs aimed at female students. Thus, educational institutions have a strategic role in creating a supportive environment for healthy body image formation through increased nutritional knowledge and awareness. These initiatives can minimize the negative impact of narrow social standards and help female students to develop a healthy relationship with their own bodies - an important foundation for optimal mental and physical health.

5. CONCLUSION

Based on the results of the Spearman correlation analysis with a coefficient value of $r = 0.968$ and significance <0.001 , it can be concluded that the higher the level of knowledge of college students about a healthy diet, the more positive their perception of their body. A good understanding of healthy diet not only helps college students, especially female college students, to have a realistic view of their body, but also increases their appreciation of their body. This proves that individuals who have better knowledge about nutrition and a balanced diet are less likely to be influenced by unhealthy and unrealistic beauty standards that are often promoted by the media and social environment. From these findings, it is important to emphasize the need for continuous education on healthy eating, both inside and outside the classroom. On-campus education programs that promote a balanced lifestyle, as well as active support from lecturers and counselors, are essential for providing guidance on physical and mental health. Such education can help students to develop a better understanding of holistic body health, including aspects such as healthy diet management, recognition of positive body image concepts, and the importance of self-acceptance in the context of body shape diversity. In addition, the results of this study indicate that education on healthy eating can be an effort to reduce the negative impact of social pressures that tend to define beauty through physicality alone. Therefore, the development of a more comprehensive education program that involves various aspects-both physical and psychological-is expected to help shape a healthier and more positive body image among students, and support the creation of overall well-being at the university level. In conclusion, in addition to the importance of increasing knowledge about healthy diets, greater attention to mental health and self-acceptance is also necessary to create a healthy balance in the lives of university students. The integration of physical and mental health education in the higher education curriculum will have a significant positive impact on the development of healthier individuals, both physically and psychologically.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

7. REFERENCES

- Abidin, Zainal, and Sugeng Purbawanto. 2015. "Pemahaman siswa terhadap pemanfaatan media pembelajaran berbasis livewire pada mata pelajaran teknik listrik kelas x jurusan audio video di smk negeri 4 semarang." *Edu Elekrika Journal* 4(1): 38–49.
- Alharballeh, S., & Dodeen, H. (2023). Prevalence of body image dissatisfaction among youth in the United Arab Emirates: gender, age, and body mass index differences. *Current Psychology*, 42(2), 1317–1326. <https://doi.org/10.1007/s12144-021-01551-8>
- Al Riyami, Yahya Salim, Intisar Hamood Al Senani, Abdallah Salim Al Brashdi, Nazar Ismail Al Balushi, Amer Jebriel Almarabheh, and Jamil Ahmed. 2024. "Young females experience higher body image dissatisfaction associated with a high social media use: a cross-sectional study in omani university students." *Middle East Current Psychiatry* 31(1). doi:10.1186/s43045-024-00477-8.
- Azwar, A. 2010. "Tubuh sehat ideal dari segi kesehatan, seminar kesehatan obesitas, senat mahasiswa fakultas kesehatan masyarakat ui." *Seminar Kesehatan Obesitas*. Depok. Universitas ...: 1–7.
- Cash, Thomas F. 2016. "Encyclopedia of feeding and eating disorders." *Encyclopedia of Feeding and Eating Disorders*: 1–4. doi:10.1007/978-981-287-087-2.
- Chandra, Chandra, Akhmad Fauzan, and M Febriza Aquarista. 2017. "Hubungan antara pengetahuan dan sikap dengan perilaku hidup bersih dan sehat (phbs) pada siswa sekolah dasar (sd) di kecamatan cerbon tahun 2016." *Jurnal Kesmas (Kesehatan Masyarakat) Khatulistiwa* 4(3): 201. doi:10.29406/jkkm.v4i3.849.
- Ferdiana, Fita, Mieke Marindawati, Sugiarto Sugiarto, Achmad Nadhif, Febi Maghfiroh, and Elsa Aristia Fitriani. 2023. "Edukasi masyarakat melalui penyuluhan tentang gejala dan pencegahan kanker ovarium." *Jurnal Abdimas Kedokteran dan Kesehatan* 1(1): 51. doi:10.24853/jaras.1.1.51-55.
- Herawati, Ade Tika, Manaf Manaf, and Nadia Fauziawati Dewi. 2023. "Gambaran pengetahuan remaja tentang diet sehat." *THE JOURNAL OF Mother and Child Health Concerns* 2(2): 56–62. doi:10.56922/mchc.v2i2.324.
- Husna, Nur Lailatul. 2013. "Hubungan antara body image dengan perilaku diet (penelitian pada wanita di sanggar senam rita pati)." *Developmental and Clinical Psychology* 2(2): 44–49.
- Jannah, Lina Miftahul, and Bambang Prasetyo. 2011. "Pendekatan kuantitatif." *Materi Pokok Metode Penelitian Kuantitatif*: 1–19.
- Jo d'Ardenne, Sally McManus, Julia Hall. 2011. "Designing survey questions on food-related issues." (January 2011): 54. doi:10.13140/RG.2.2.22992.92164.
- Khan, A. N., Khalid, S., Khan, H. I., & Jabeen, M. (2011). Impact of today's media on university student's body image in Pakistan: a conservative, developing country's perspective. *BMC Public Health*, 11(1), 379. <https://doi.org/10.1186/1471-2458-11-379>
- Manurung, Ivana. 2023. "Buletin riset psikologi dan kesehatan mental hubungan antara body image dan perilaku diet pada wanita dewasa awal." *Emphaty* 1(2): 1126–31.

- McKeown, B. J., and S. C. Rankin. 1994. "Aortocaval fistulae presenting with renal failure: ct diagnosis." *Clinical Radiology* 49(8): 570–72. doi:10.1016/S0009-9260(05)82940-X.
- Najam, Najma, and Hanzala Ashfaq. 2012. "Najma Najam and Hanzala Ashfaq." 27(2): 187–200.
- Neighbors, L. A., & Sobal, J. (2007). Prevalence and magnitude of body weight and shape dissatisfaction among university students. *Eating Behaviors*, 8(4), 429–439. <https://doi.org/10.1016/j.eatbeh.2007.03.003>
- Neumark-Sztainer, Dianne, and Peter J. Hannan. 2000. "Weight-related behaviors among adolescent girls and boys: results from a national survey." *Archives of Pediatrics and Adolescent Medicine* 154(6): 569–77. doi:10.1001/archpedi.154.6.569.
- Permatasari, Wahyu Mahar. 2016. "Hubungan antara status gizi, siklus dan lama menstruasi dengan kejadian anemia remaja putri di sma negeri 3 surabaya." *Perpustakaan Universitas Airlangga*: 1–108.
- Polivy, Janet, C. Peter Herman, and Shelley Warsh. 1978. "Internal and external components of emotionality in restrained and unrestrained eaters." *Journal of Abnormal Psychology* 87(5): 497–504. doi:10.1037//0021-843x.87.5.497.
- Radwan, H., Hasan, H. A., Ismat, H., Hakim, H., Khalid, H., Al-Fityani, L., Mohammed, R., & Ayman, A. (2019). Body mass index perception, body image dissatisfaction and their relations with weight-related behaviors among university students. *International Journal of Environmental Research and Public Health*, 16(9), 1541. <https://doi.org/10.3390/ijerph16091541>
- Rombe, Sufrihana. 2013. "Hubungan body image dan kepercayaan diri dengan perilaku konsumtif pada remaja putri di sma negeri 5 samarinda." *Psikoborneo: Jurnal Ilmiah Psikologi* 1(4): 228–36. doi:10.30872/psikoborneo.v1i4.3520.
- Septianto, Andry, Syahreem Nurmutia, Niera Feblidiyanti, and Universitas Pamulang. 2020. "Sosialisasi pentingnya pola hidup sehat guna meningkatkan kesehatan tubuh pada masyarakat desa kalitorong kecamatan randudongkal kabupaten pemalang provinsi jawa tengah." 1(2): 55–62.
- Susanti, Rini. 2019. "Sampling dalam penelitian pendidikan." *Jurnal Teknodik* (16): 187–208. doi:10.32550/teknodik.v0i0.543.
- Syafnita, T., Muhamad, A., Mukhlisin, M., Wenselinus Nong, K., Hermania, B., Afrida Sriyani, H., ... & Vinsensius Bawa, T. (2023). *Psikologi perkembangan anak usia dini*.
- Tiggemann, Marika, and Amy Slater. 2013. "NetGirls: The internet, facebook, and body image concern in adolescent girls." *International Journal of Eating Disorders* 46(6): 630–33. doi:10.1002/eat.22141.
- Yanuarti, Suci, Yenny Moviana, Mira Mutiyani, Gurid PE Mulyo, and Nitta Isdiany. 2022. "Gambaran pengetahuan fad diet, gizi seimbang dan persepsi body image pada remaja putri di sma negeri, bandyung." *Jurnal Kesehatan Siliwangi* 2(3): 939–47. doi:10.34011/jks.v2i3.879.

Yulianti, T S., and R. Indriati. 2015. "Hubungan antara body image dengan perilaku diet pada remaja putri kelas xi ipa 3 dan 4 sma n 1 polanharjo klaten." *Jurnal Keperawatan Intan Husada* 1(1): 57–66.