

Perpustakaan UKI

The Relationship Between Body Image Eating Behavior and Physic...

-  Turnitin Dosen 35
-  Turnitin Dosen - Okt
-  Universitas Kristen Indonesia

Document Details

Submission ID

trn:oid:::1:3387909121

Submission Date

Oct 27, 2025, 11:09 AM GMT+7

Download Date

Oct 27, 2025, 11:21 AM GMT+7

File Name

ivityontheNutritionalStatusofAdolescentsAmongMedicalStudents.pdf

File Size

321.2 KB

7 Pages**2,493 Words****14,721 Characters**

14% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text

Exclusions

- 1 Excluded Source
- 24 Excluded Matches

Match Groups

-  **19 Not Cited or Quoted 11%**
Matches with neither in-text citation nor quotation marks
-  **6 Missing Quotations 3%**
Matches that are still very similar to source material
-  **0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 12%  Internet sources
- 10%  Publications
- 2%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

- 19 Not Cited or Quoted 11%**
Matches with neither in-text citation nor quotation marks
- 6 Missing Quotations 3%**
Matches that are still very similar to source material
- 0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 12% Internet sources
- 10% Publications
- 2% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Internet	garuda.kemdikbud.go.id	2%
2	Internet	journal.unsika.ac.id	2%
3	Student papers	Universitas Airlangga	2%
4	Internet	repository.uki.ac.id	1%
5	Publication	Dyah Intan Puspitasari, Rahayu Wiji Astuti. "The Relationship Between Perceived ...	<1%
6	Internet	scholar.ui.ac.id	<1%
7	Internet	www.medrxiv.org	<1%
8	Publication	Nila Anggita Nur Faizah, Amalia Ruhana. "PERSEPSI BODY IMAGE DENGAN KEBIAS...	<1%
9	Publication	Temes, Erica. "Body Dissatisfaction and Eating Disorder Symptomology in College...	<1%
10	Internet	repository.uin-suska.ac.id	<1%

11	Internet	www.science.gov	<1%
12	Publication	Novliza Rizkia Putri, Rini Anggraini, Nurmalia Ermi. "THE RELATIONSHIP BETWEEN...	<1%
13	Internet	ccforum.biomedcentral.com	<1%
14	Internet	www.ijraset.com	<1%
15	Internet	www.mdpi.com	<1%
16	Publication	Ade Gafar Abdullah, Isma Widiaty, Cep Ubad Abdullah. "Medical Technology and ...	<1%
17	Internet	wjbphs.com	<1%
18	Publication	de Castro, Daniela Anaís. "Body Image in Children and Adolescents : Impact on O...	<1%
19	Internet	www.karger.com	<1%

The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students

Frisca Ronauli Batubara¹, Keswari Aji Patriawati², Ni Made Evina Vilanda Sistani³

¹Department of Physiology, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia

²Department of Pediatric, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia

³Undergraduate Program, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia

frisca.batubara@uki.ac.id

Article Information

Submitted: 14 October 2025

Accepted: 22 October 2025

Publish: 30 October 2025

Keyword: Physical Activity; Body Image; Eating Behavior; Nutritional Status;

Copyright holder: Frisca Ronauli Batubara, Keswari Aji Patriawati, Ni Made Evina Vilanda Sistani

Year: 2025

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Abstract

Introduction: Adolescence is a crucial period of physical and psychological development, often accompanied by dissatisfaction with body image. Many adolescents struggle to accept their body shape, which can influence eating behavior and physical activity, ultimately affecting nutritional status. **Objective:** This study aimed to determine the relationship between body image, eating behavior, and physical activity on the nutritional status of adolescents.

Method: A cross-sectional study was conducted among 115 medical students from the Faculty of Medicine, Christian University of Indonesia, Class of 2018. Data were collected through online questionnaires, including the Body Shape Questionnaire-34, Eating Attitude Test-26, and International Physical Activity Questionnaire. The data were analyzed using the chi-square test. Result and **Discussion:** The analysis showed that eating behavior had the most significant influence on nutritional status, with a p-value of 0.035. This finding indicates that irregular eating patterns and excessive dietary control may contribute to imbalanced nutrition among adolescents.

Conclusion: There is a significant relationship between eating behavior and nutritional status among adolescents. Promoting healthy eating habits and positive body perception is essential to maintain optimal nutritional health during adolescence.

How to Cite

Frisca Ronauli Batubara, Keswari Aji Patriawati, Ni Made Evina Vilanda Sistani/The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students, Vol. 5, No. 1, 2025

<https://doi.org/10.54543/kesans.v5i1.468>

DOI

e-ISSN/p-ISSN

2808-7178 / 2808-7380

Published by

CV Rifainstitut/KESANS: International Journal of Health and Science

Frisca Ronauli Batubara, Keswari Aji Patriawati, Ni Made Evina Vilanda
Sisthaningrum/KESANS

The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students

Introduction

Adolescence is a transitional stage of human development characterized by rapid physical, psychological, and social changes that typically occur between the ages of 12 and 23 years (World Health Organization [WHO], 2023). During this period, adolescents experience significant body changes, which may affect their self-perception and confidence. However, many adolescents struggle to accept their body shape and often experience dissatisfaction with their physical appearance. This dissatisfaction is closely linked to body image, a psychological construct describing one's perception and attitude toward their body (Grogan, 2021); (Saragih et al., 2022)

Body image concerns are particularly prevalent among female adolescents, who tend to evaluate their appearance based on emotional and social standards rather than functional performance (Cash & Smolak, 2011). In Indonesia, research indicates that adolescent girls often experience pressure from peers and social media, resulting in negative body image and disordered eating behaviours (Jannah, Minarni, & Saudi, 2023); (Kartika, Negara, & Wulandari, 2021). Social and cultural stereotypes regarding the "ideal body shape" have been shown to increase body dissatisfaction among teenage girls, leading to reduced self-esteem and unhealthy weight-control behaviours (Jones & Crawford, 2006) (Wulandari, Syuryadi, & Ernalina, 2023). Male adolescents, in contrast, often strive for a more muscular physique and report higher satisfaction with their bodies (Tiggemann & Slater, 2017). Social comparison within peer groups also plays a crucial role — adolescents often adjust their behaviour to align with group norms and social acceptance (Perloff, 2014); (Resha & Izzaty, 2025)

Such psychological pressures can influence dietary patterns and lifestyle habits. Adolescents who are dissatisfied with their body image may restrict food intake excessively or view eating as a threat to achieving their ideal body (Neumark-Sztainer, Wall, Story, & Standish, 2012). Studies in Indonesia confirm that negative body image is associated with irregular dietary behaviour, low dietary diversity, and increased risk of undernutrition or obesity (ILHAM, 2024). These behaviours can lead to malnutrition, eating disorders, or other health risks. On the other hand, regular physical activity is known to improve both body image and nutritional balance, yet many adolescents prioritise dietary restriction over exercise (Homan & Tylka, 2014); (Manoppo & Lang, 2022). A study among Indonesian university students revealed a significant correlation between body image, eating patterns, and nutritional status (Al-Hana & Intansari, 2025)

Although numerous studies have examined the relationship between body image and eating behaviour, limited research has investigated the combined influence of body image, eating behaviour, and physical activity on the nutritional status of university students in Indonesia, particularly among medical students who face academic stress and social appearance expectations. Understanding these relationships is crucial for promoting adolescent health and preventing long-term nutritional problems. Therefore, this study aims to analyse the relationship between body image, eating behaviour, and physical activity with the nutritional status of adolescents, focusing on medical students from the Faculty of Medicine, Christian University of Indonesia, Class of 2018. The findings are expected to contribute to public health promotion by identifying key behavioural and psychological factors influencing adolescent nutrition (Eprillia, 2022); (Buciminalda & Kumaidi, 2022)

Frisca Ronauli Batubara, Keswari Aji Patriawati, Ni Made Evina Vilanda
Sisthaningrum/KESANS

The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students

Method

This study used an analytical observational design with a cross-sectional approach to examine the relationship between body image, eating behavior, and physical activity on adolescent nutritional status. The research was conducted at the Faculty of Medicine, Christian University of Indonesia (UKI) in April 2022, involving 115 medical students from the 2018 cohort. Participants were selected using a simple random sampling method based on the Slovin formula with a 5% margin of error.

Data were collected through validated online questionnaires, including the Body Shape Questionnaire (BSQ-34), Eating Attitude Test (EAT-26), and International Physical Activity Questionnaire (IPAQ). The dependent variable was nutritional status, while the independent variables were body image, eating behavior, and physical activity. Data processing involved editing, coding, tabulating, and cleaning to ensure accuracy and consistency.

All data were analyzed using SPSS version 26.0 with univariate, bivariate, and multivariate analyses. The chi-square test and logistic regression were applied at a 95% confidence level to identify relationships among variables. Validity testing was conducted using Pearson correlation, and reliability was assessed using Cronbach's Alpha, confirming that all instruments were valid and reliable for measuring factors influencing adolescent nutritional status.

Result and Discussion

1. Result

Table 1

Respondents' Characteristics (Univariate Analysis)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	19	1	0.9
	20	4	3.5
	21	51	44.3
	22	53	46.1
	23	6	5.2
Gender	Male	29	25.2
	Female	86	74.8
Body Weight (kg)	30–50	28	24.3
	51–70	69	60.0
	71–90	11	9.6
	91–110	7	6.1
Height (cm)	145–155	24	20.9
	156–165	66	57.4
	166–175	21	18.3
	176–195	4	3.5
Body Image	Positive	78	67.8
	Negative	37	32.2
Eating Behavior	Non-risky	83	72.2
	Risky	32	27.8
	Low	36	31.3
Physical Activity	Moderate	40	34.8
	High	39	33.9
Nutritional Status	Underweight (severe + mild)	19	16.5
	Normal	66	57.4
	Overweight/Obese	30	26.1

The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students

Most respondents were female students (74.8%), aged 21–22 years, with normal nutritional status (57.4%). The majority exhibited positive body image and non-risky eating behavior, while physical activity levels were evenly distributed across categories.

Table 2

Relationship Between Independent Variables and Nutritional Status (Bivariate Analysis)

Independent Variable	Nutritional Status – Poor n (%)	Nutritional Status – Normal n (%)	OR (95% CI)	p-value	Interpretation
Body Image	Negative: 21 (18.3%)	Positive: 29 (25.2%)	2.218 (1.000–4.917)	0.069	Not significant
Eating Behavior	Risky: 19 (16.5%)	Non-risky: 31 (26.9%)	2.452 (1.065–5.645)	0.038	Significant
Physical Activity	Low–Moderate: 34 (29.6%)	High: 16 (13.9%)	1.164 (0.532–2.544)	0.843	Not significant

There was a statistically significant association between eating behavior and nutritional status ($p < 0.05$). Students with risky eating behaviors were 2.45 times more likely to have poor nutritional status than those with normal eating habits.

Table 3

Logistic Regression Results (Multivariate Analysis)

Variable	β	OR	95% CI	p-value	Conclusion
Eating Behavior	0.897	2.452	1.065–5.645	0.035	Significant predictor
Constant	-1.276	0.279	–	–	–

Logistic regression confirmed eating behavior as the dominant predictor of nutritional status ($p = 0.035$). Students with risky eating behavior were 2.45 times more likely to experience poor nutrition than those with healthy eating patterns.

2. Discussion

This study found that most medical students of the Faculty of Medicine, Christian University of Indonesia, Class of 2018, had positive body image, non-risky eating behavior, moderate physical activity, and normal nutritional status. These findings reflect good health awareness among students due to their medical background.

There was no significant relationship between body image and nutritional status ($p = 0.069$), differing from Putri (2020), who found a strong correlation in adolescents. This may be due to students' better understanding of nutrition, allowing them to maintain proper diet despite dissatisfaction with body shape.

Conversely, eating behavior showed a significant relationship with nutritional status ($p = 0.038$; OR = 2.452). Respondents with risky eating habits were more than twice as likely to experience poor nutritional outcomes. This supports findings by Widiyanti et al. (2020), emphasizing that food intake patterns directly affect nutrient adequacy and body composition. The multivariate test confirmed eating behavior as the most dominant factor ($p = 0.035$).

Frisca Ronauli Batubara, Keswari Aji Patriawati, Ni Made Evina Vilanda
Sisthaningrum/KESANS

The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students

Meanwhile, physical activity showed no significant effect ($p = 0.843$), consistent with Candrawati (2021), indicating that balanced nutrition can maintain good status even with low activity levels. Overall, eating behavior remains the key determinant of adolescent nutritional status, highlighting the importance of promoting healthy dietary habits and nutrition awareness among students.

Conclusion

Based on the findings of this study conducted among medical students of the Faculty of Medicine, Christian University of Indonesia, Class of 2018, it can be concluded that there was no significant relationship between body image and nutritional status ($p = 0.069$), indicating that students with negative body perception were still able to maintain normal nutrition through adequate dietary awareness. Conversely, a significant association was found between eating behavior and nutritional status ($p = 0.038$; OR = 2.452; 95% CI = 1.065–5.645), demonstrating that respondents with risky eating habits were 2.45 times more likely to have poor nutritional outcomes. Meanwhile, physical activity showed no significant correlation with nutritional status ($p = 0.843$). These results confirm that eating behavior is the dominant factor influencing adolescent nutritional health among university students.

The Relationship Between Body Image, Eating Behavior, and Physical Activity on the Nutritional Status of Adolescents Among Medical Students

Reference

- Al-Hana, Tsabita, & Intansari, Fixi. (2025). [Hubungan Antara Body Image dengan Penerimaan Diri pada Mahasiswa Putri](#). *Jurnal Ilmiah Psikologi (JIPSI)*, 7(1), 55–64.
- Buciminalda, Xena Ayunda, & Kumaidi, M. A. (2022). [Hubungan Antara Persepsi Citra Tubuh Dengan Kepercayaan Diri Pada Remaja Putri di Pontianak](#). Universitas Muhammadiyah Surakarta.
- Cash, Thomas F., & Smolak, Linda. (2011). *Body image: A handbook of science, practice, and prevention*. Guilford press.
- Eprillia, Dinda Manda. (2022). [Hubungan body image dengan perilaku makan menyimpang pada remaja: sebuah literature review](#). *Jurnal Kesehatan Komunitas Indonesia*, 18(2).
- Grogan, Sarah. (2021). [Body image: Understanding body dissatisfaction in men, women and children](#). Routledge.
- Homan, Kristin J., & Tylka, Tracy L. (2014). Appearance-based exercise motivation moderates the relationship between exercise frequency and positive body image. *Body Image*, 11(2), 101–108.
- ILHAM, DEZI. (2024). [HUBUNGAN PENGETAHUAN, BODY IMAGE DAN POLA MAKAN TERHADAP STATUS GIZI PADA MAHASISWA SEMESTER AKHIR PRODI S1 GIZI UNIVERSITAS PERINTIS INDONESIA](#). *Jurnal Kesehatan Medika Saintika*, 15(2), 407–416.
- Jannah, Miftahul, Minarni, Minarni, & Saudi, A. Nur Aulia. (2023). [Hubungan Self Esteem dengan Body Image pada Remaja Wanita yang Menggunakan Filter Instagram](#). *Jurnal Psikologi Karakter*, 3(2), 340–346.
- Jones, Diane Carlson, & Crawford, Joy K. (2006). The peer appearance culture during adolescence: Gender and body mass variations. *Journal of Youth and Adolescence*, 35(2), 243–255.
- Kartika, Kadek Yuni, Negara, I. G. N. Kusuma, & Wulandari, Sarah K. (2021). [Hubungan antara body image dengan pola makan remaja putri Kelas XI di SMK PGRI 4 Denpasar](#). *Jurnal Riset Kesehatan Nasional*, 5(2), 87–93.
- Manoppo, Ivanna, & Lang, Merfin Feren. (2022). [Hubungan Body Image Dengan Status Gizi Pada Remaja Di Desa Kema Ii](#). *Nutrix Journal*, 6(1), 14–23.
- Neumark-Sztainer, Dianne, Wall, Melanie, Story, Mary, & Standish, Amber R. (2012). Dieting and unhealthy weight control behaviors during adolescence: associations with 10-year changes in body mass index. *Journal of Adolescent Health*, 50(1), 80–86.
- Perloff, Richard M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles*, 71(11), 363–377.
- Resha, Resha, & Izzaty, Rita Eka. (2025). [Self-Esteem and Social Comparison as a Predictor of Body Image in Adolescent Girls](#). *Eduvest-Journal of Universal Studies*, 5(10), 12152–12166.
- Saragih, Ice Septriani, Rupang, Ernita Rante, Siallagan, Ance, Purba, Rotua Suryani, Keperawatan, S., Selayang, M., & Utara, S. (2022). [Hubungan Kebiasaan Makan dengan Body Image Pada Remaja Kelas IX](#). *Jurnal Keperawatan Jiwa (JKJ): Persatuan Perawat Nasional Indonesia*, 10(4), 767–774.

Frisca Ronauli Batubara, Keswari Aji Patriawati, Ni Made Evina Vilanda
Sisthaningrum/KESANS

**The Relationship Between Body Image, Eating Behavior, and Physical Activity on
the Nutritional Status of Adolescents Among Medical Students**

Tiggemann, Marika, & Slater, Amy. (2017). Facebook and body image concern in adolescent girls: A prospective study. *International Journal of Eating Disorders*, 50(1), 80–83.

Wulandari, Rosinta Dewi, Syuryadi, Novfitri, & Ernalia, Yanti. (2023). [HUBUNGAN BODY IMAGE DENGAN GANGGUAN PERILAKU MAKAN PADA REMAJA PUTRI SMAN 1 KOTA PEKANBARU](#). *Prosiding Seminar Nasional Ketahanan Pangan*, 1(1), 75–84.