

## **Relationship Between Knowledge and Attitude About Anemia with Compliance of Iron Supplementation Consumption in Female Adolescents of Grade X at State Senior High School 13 Surabaya**

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### **ABSTRACT**

The transition from childhood to adulthood is known as the adolescent stage. Anemia is a common nutritional condition among adolescent girls in Indonesia. This study aimed to determine the relationship between knowledge and attitudes of adolescent girls regarding anemia and their compliance to take Fe (iron) tablets. The type of research is analytic observational with a cross sectional approach. A total of 68 respondents were purposively selected. The results showed that most had a good understanding of anemia, but there were still many who did not take Fe (iron) tablets. Chi-Square test was applied to analyze the data and it was found that adolescent girls in class X SMA Negeri 13 Surabaya did not know anything about anemia and did not take iron tablets. In conclusion, most of the adolescent girls have positive attitude and knowledge related to anemia, but some adolescents do not consume Fe (iron) supplements. Suggestion: Inspire adolescent girls to consume Fe (iron) supplements along with providing comprehensive information related to anemia and motivation.

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### **INTRODUCTION**

The youth stage is a transformational phase initiated when the child begins to visualize the symptoms of puberty and lasts until sexual behavior changes<sup>1</sup>. Adolescents visualize increased self-reflection, which changes and grows in relationships with what other individuals think of them<sup>2-4</sup>. Teenagers' nutritional needs are met from the foods they consume, one of which is iron, which they consume regularly as they grow rapidly. Adolescent girls in their adolescent phase are one of the classifications most at risk of Fe deficiency anemia. Suddenly, breakfast is one of the risk factors for anemia that adolescents need to consider so that they have a balanced diet as a provision for daily activities<sup>5-9</sup>.

Adolescence is a time of rapid growth and development, and as a result, changes in eating habits and lifestyle will affect the nutritional needs of adolescents. Iron is one of the nutrients that need to be consumed in larger quantities. Iron is needed by the body to produce hemoglobin, a substance found in red blood cells, and to carry out enzyme activity. Giving doses of 1 tablet per week and 1 tablet per day for 10 days during menstruation can help prevent and treat anemia in

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adolescent girls<sup>10-13</sup>. Fe is needed daily in the amount of about 35 mg / kg for women and 50 mg / kg for men<sup>14</sup>.

Anemia is when there are increased Red Blood Cells in the blood or more hemoglobin than normal. Anemia occurs due to lack of Fe and folic acid<sup>15-17</sup>. Adolescents with anemia will have a negative impact on study ability and ability to concentrate. This will also interfere with the growth power of somatic cells and brain cells, resulting in pale, lethargic, and tired skin, which will have a negative impact on fitness and academic achievement<sup>18,19</sup>. Bad eating habits, such as skipping breakfast and eating fruits and vegetables continuously, are one of the risk factors for anemia<sup>20,21</sup>.

Reduced reproductive health, mental and intelligence, ability to study and concentrate, physical level and fitness, stunted motor development, non-optimal height due to stunted growth, and pale face are the original consequences of anemia in adolescent girls<sup>22</sup>. Researchers wanted to see how young women's knowledge and attitudes about anemia correlated with adherence to taking Blood Supplement Tablets. In Indonesia, the prevalence of anemia is still quite high. Based on these findings, the national anemia prevalence rate is 48.9% with anemia sufferers aged 15-24 years at 84.6%<sup>23</sup>. Meanwhile, 5.8% of the population in East Java Province is anemic. This figure is still far from the national target of 28%<sup>24</sup>. The need for Fe (iron) in adolescent girls is greater than in adolescent boys for the development of Red Blood Cells because adolescent girls often menstruate every month.

This research was applied in class X of SMA Negeri 13 Surabaya because it had conducted a preliminary study first at the school and was accepted by the school. It was found that knowledge and attitudes about anemia were positive, and as many as 64% of samples or 14 of 22 samples were not compliant in taking the recommended blood-added tablets. Additional information that was enabled during initial observation during interviews with adolescent female students of SMA Negeri 13 Surabaya was that many female students did not spend blood added tablets given to health workers by 64%, namely 8 out of 22 samples because the taste made female students feel nauseous and other reasons female students did not take blood-added tablets were lazy and tasted bad. This fact is the background for researchers to conduct a study on the correlation between understanding and views about anemia with obedience when taking tablet supplements (Fe) in adolescent girls in grade X SMA Negeri 13 Surabaya.

## **MATERIALS AND METHODS**

In this study, cause variables or risk variables and outcome variables or cases were collected simultaneously in research subjects using analytical observational research methods using cross-sectional study design. This research was conducted at SMA Negeri 13 Surabaya in November 2022 – March 2023. The population that was the object of this study was 208 female students of

grade X SMA Negeri 13 Surabaya. The sample size in this study was 10%, namely 68 panelists. In this study, a purposive approach to sample selection was used.

The data collection method begins with panelists filling out an informed consent sheet to request the availability of respondents in collecting data. Then, a questionnaire was filled out followed by an interview. The collected data are examined and summarized using tables and graphs for the purposes of univariate analysis. Each variable investigated will be calculated descriptive statistics, such as mean, percentage, frequency, and standard deviation, in univariate analysis. Bivariate analysis was used to investigate the relationship between the dependent variable (adherence to taking blood tablets) and the independent variable (knowledge and attitudes associated with anemia). The purpose of univariate analysis is to present a summary of the distribution of data and the properties of the variables studied. Computer programs such as SPSS applications are used to process data. The resulting data will be categorized as categorical data in this study. The Chi-Square statistical test will also be used to assess the statistical significance of the relationship between the independent variable and the dependent variable.

## RESULTS

### Characteristics Responden

**Table 1. Frequency Distribution of Respondent Characteristics**

Variable	Frequency (n)	Percentage (%)
<b>Age</b>		
15 years old	27	39.7
16 years old	36	52.9
17 years old	5	7.4
<b>Grade</b>		
X-1	7	10.3
X-2	7	10.3
X-3	6	8.8
X-4	7	10.3
X-5	6	8.8
X-6	7	10.3
X-7	7	10.3
X-8	7	10.3
X-9	7	10.3
X-10	7	10.3
<b>Total</b>	<b>68</b>	<b>100</b>

Source: Primary data, 2023

Based on table 1 shows that the total number of panelists is 68 students, where the majority of respondents aged 16 years are 36 panelists (52.9%) and most of them there are 8 classes that take 7 female students as panelists with a percentage of 10.3%.

**Level of Knowledge, Attitude and Compliance**

**Table 2. Frequency Distribution of Anaemic Knowledge and Attitudes**

Variable	Frequency (n)	Percentage (%)
<b>Knowledge</b>		
Good	7	10.3
Enough	44	64.7
Less	17	25
<b>Attitude</b>		
Good	65	95.6
Enough	3	4.4
Less	0	0
<b>Total</b>	<b>68</b>	<b>100</b>

Source: Primary data, 2023

Based on the results in table 2, it shows that the number of panelists with the greatest level of anemia knowledge is sufficient knowledge, namely 44 panelists (64.7%), and the smallest anemia knowledge is good knowledge with 7 panelists (10.3%). The level of anemia attitude is mostly good attitude, which is as many as 65 panelists (95.6%).

**Table 3 Frequency Distribution of Adherence to Taking Blood Added Tablets**

Variable	Frekuensi (n)	Persentase (%)
Obedient	18	26.5
Disobedient	50	73.5
<b>Total</b>	<b>68</b>	<b>100</b>

Source: Primary data, 2023

Based on the results in table 3, it is known that adherence to taking blood-added tablets in adolescent girls at SMA Negeri 13 Surabaya is mostly non-compliant in taking blood-added tablets, namely 50 panelists (73.5%).

**Level of Knowledge and Attitude with Compliance**

**Table 4 Cross-tabulation of Knowledge Levels and Attitudes with Compliance**

Variable	Adherence to Blood Add Tablet Consumption				Total		P
	Obedient		Disobedient		n	%	
	n	%	n	%			
<b>Knowledge</b>							
Good	2	28.6	5	71.4	7	100	0.635
Enough	13	29.5	31	70.5	44	100	
Less	3	17.6	14	82.4	17	100	
<b>Attitude</b>							
Good	18	27.7	47	72.3	65	100	0.288
Enough	0	0	3	100	3	100	

Source: Primary data, 2023

Based on cross-tabulation analysis in table 4, the results of processing research results accompanied by applying the Chi-Square test are capable of nominal Asymptotic Sig. (2-sided)  $p > 0.05$ , namely in knowledge accompanied by nominal  $p = 0.635$  and in attitude accompanied by

nominal  $p = 0.288$ , So it can be said that there is no relationship between knowledge, attitude, and adherence to taking blood added tablets.

## **DISCUSSION**

### **Frequency Distribution of Knowledge related to Anemia**

From the results of the research, it was visualized that 68 panelists in class X of SMA Negeri 13 Surabaya were dominant in sufficient knowledge with a total of 44 out of 68 panelists (64.7%). These findings illustrate that sufficient knowledge related to anemia does not always have an impact on the level of adherence to the consumption of blood-added tablets.

Given the results that have been delivered, efforts need to be made to spread awareness and provide more thorough education about the benefits and importance of giving blood tablets to adolescent girls. It is hoped that by raising awareness and providing proper education, adolescent girls will consume blood tablets more consistently and anemia can be avoided<sup>25</sup>.

### **Frequency Distribution of Attitudes related to Anemia**

In the results of the research, it was found that attitudes related to anemia in students in grade X of SMA Negeri 13 Surabaya showed that 65 female students (95.6%) had a good attitude towards anemia. Meanwhile, 3 female students (4.4%) have a sufficient attitude towards him.

In the view of some experts, attitude is defined as an individual's tendency to feel like or dislike towards an object, event, or phenomenon. This attitude is influenced by the knowledge, beliefs, experiences, and emotions that the individual has towards the object or phenomenon. In the context of this study, attitudes towards anemia and blood-added tablets have the potential to influence the level of adherence in taking these tablets. Therefore, it is important for young women to develop a positive attitude towards anemia and blood tablets, so that this can contribute positively to their level of adherence to taking these tablets<sup>26</sup>.

### **Frequency Distribution of Blood Added Tablet Consumption Adherence**

This study states that the importance of taking iron supplementation regularly in adolescent girls is very important to maintain their health and quality of life. Non-compliance in taking iron supplementation can cause a lack of iron needed by the body, which can reduce the concentration of learning and make young women less enthusiastic in activities. Therefore, it is necessary to be reminded of the importance of maintaining compliance in taking iron supplementation regularly, especially during menstruation, in order to increase hemoglobin levels in the body and prevent anemia<sup>26</sup>. Young women who take blood-boosting supplements are less likely for a variety of reasons, including nausea and discomfort from the taste or smell of pills. In addition, one of the element's affecting compliances is laziness<sup>27</sup>.

Intention and social support play an important role in shaping a person's behavior. In this case, support from family especially parents at home have a key role in motivating adolescent girls to maintain their health and prevent anemia through the use of blood tablets. Through family support, young women will feel supported and motivated to maintain health and adopt healthy behaviors, including taking blood-added tablets regularly<sup>28,29</sup>.

### **The Relationship of Knowledge related to Anemia with Adherence to the Consumption of Blood Added Tablets**

According to research findings, families play an important role in improving adolescent girls' adherence to TTD. The government and society can contribute to efforts to stop anemia in adolescent girls, in addition to families and schools. One of the causes of the nutrition phase is a lack of knowledge and understanding related to healthy eating habits<sup>30-32</sup>. Nutritional problems in adolescents are often caused by poor nutritional behavior, such as an imbalance between nutritional intake and body needs that can cause obesity, chronic lack of energy (malnutrition), and anemia<sup>30-32</sup>.

Lifestyle changes are of comparable importance to considering medical treatment in the fight against anemia. Maintaining the health of family members is one of the responsibilities of the family, especially in the adolescent phase, the phase of rapid physical growth. One of the first forms of health behavior formation is the intention to take iron supplementation. The Theory of Planned Behavior (TPB) posits that an individual's intention to perform a behavior is influenced by their attitude towards the behavior, subjective norms (social pressures from significant others), and perceived behavioral control (belief in their ability to execute the behavior). Recent studies have reinforced this framework. For example, research has demonstrated that attitudes, subjective norms, and perceived behavioral control significantly impact intentions and behaviors such as COVID-19 vaccination and environmentally friendly purchasing<sup>33</sup>.

### **The Relationship of Attitudes related to Anemia with Adherence to Taking Blood Added Tablets**

Based on the results of cross-tabulated examinations of subjects with good attitudes (65 adolescent girls), there may be 72.3% non-adherence to taking iron tablets. Although young women are well aware of their anemia, they still choose to be non-compliant by taking iron tablets. This shows that there is a need for educational or motivational programs regarding the importance of Fe (iron) or iron supplementation in adolescent girls.

Adolescent girls tend to have a strong intention to take blood-added tablets if their families support them, according to research findings on the topic. As a result of the following statements, family support is critical in influencing the health habits of adolescent girls. Consuming foods high in

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Fe (iron) such as liver, red meat, white meat, beans, and leafy greens may also be advised to avoid nutritional anemia caused by low levels of Fe (iron)<sup>34</sup>..

## CONCLUSION

Based on the results of the study, it can be concluded that the characteristics of panelists at the age of 15 years are represented by 39.7% of them, 52.9% at the age of 16 years, and 7.4% at the age of 17 years. Eight of the existing courses have a percentage of 10.3% each, while the two additional classes have 8.8% each. In grade X of SMA Negeri 13 Surabaya, 10.3% of adolescent girls have a good understanding of anemia, 64.7% have sufficient knowledge, and 25% have less knowledge. A total of 18 female students (26.5%) showed adherence to the consumption of blood-added tablets, while 50 female students (73.5%) did not comply. In addition, this study assessed the relationship between knowledge and attitudes related to anemia with adherence to the consumption of blood-added tablets in grade X adolescent girls of SMA Negeri 13 Surabaya. With a P value for knowledge of  $0.635 > 0.05$  and a P value for attitude of  $0.288 > 0.05$ , the results of this study showed that there was no significant relationship between knowledge and attitudes related to anemia with adherence to the consumption of blood-added tablets in grade X adolescent girls of SMA Negeri 13 Surabaya.

## REFERENCES

1. Jahroh LQ. Hubungan Antara Pola Makan dan Pola Menstruasi dengan Kejadian Anemia Pada Mahasiswa Universitas Muhammadiyah Gombong [Internet]. repository.unimugo.ac.id; 2023. Available from: <https://repository.unimugo.ac.id/2921/>
2. Taufiq Z, Ekawidnyani KR, Sari TP. Aku Sehat Tanpa Anemia: Buku Saku Anemia untuk Remaja Putri [Internet]. books.google.com; 2020. Available from: [https://books.google.com/books?hl=en&lr=&id=W6ggEAAAQBAJ&oi=fnd&pg=PT9&dq=psikologi+remaja+anemia&ots=XrC2t\\_X5GE&sig=LjuvjnfzIWsaAGMuwJLTHdXypXk](https://books.google.com/books?hl=en&lr=&id=W6ggEAAAQBAJ&oi=fnd&pg=PT9&dq=psikologi+remaja+anemia&ots=XrC2t_X5GE&sig=LjuvjnfzIWsaAGMuwJLTHdXypXk)
3. Aulya Y, Siauta JA, Nizmadilla Y. Analisis Anemia pada Remaja Putri. J ... [Internet]. 2022; Available from: <https://www.jurnal.globalhealthsciencegroup.com/index.php/JPPP/article/view/1259>
4. Syalis ER, Nurwati NN. Analisis Dampak Pernikahan Dini Terhadap Psikologis Remaja. Focus: Jurnal Pekerjaan Sosial. 2020.
5. Mejía-Rodríguez F, Kim-Herrera EY, Quezada-Sánchez AD, Venosa López M, Pacheco-Miranda S, Shamah-Levy T, et al. Anaemia in adolescent women: A priority for the nutrition agenda in Mexico. A comparison of data from the <scp>ENSANUT</scp> 2012 and 2018–2019 surveys. Nutr Bull [Internet]. 2023 Jun 18;48(2):203–15. Available from: <https://onlinelibrary.wiley.com/doi/10.1111/nbu.12614>
6. Yamamoto Y, Furukawa S, Watanabe J, Kato A, Kusumoto K, Miyake T, et al. Association

- 
- Between Eating Behavior, Frequency of Meals, and Functional Dyspepsia in Young Japanese Population. *J Neurogastroenterol Motil* [Internet]. 2022 Jul 30;28(3):418–23. Available from: <http://www.jnmjournal.org/journal/view.html?doi=10.5056/jnm21146>
7. Yamamoto S, Ohashi W, Yamaguchi Y, Inamoto S, Koshino A, Sugiyama T, et al. Background factors involved in the epidemiology of functional constipation in the Japanese population: a cross-sectional study. *Biopsychosoc Med* [Internet]. 2022 Dec 10;16(1):8. Available from: <https://bpsmedicine.biomedcentral.com/articles/10.1186/s13030-022-00237-2>
  8. Von Siebenthal HK, Moretti D, Zimmermann MB, Stoffel NU. Effect of dietary factors and time of day on iron absorption from oral iron supplements in iron deficient women. *Am J Hematol* [Internet]. 2023 Sep 26;98(9):1356–63. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/ajh.26987>
  9. Sayed SF, Nagarajan S. Haemoglobin status to determine nutritional anaemia and its association with breakfast skipping and BMI among nursing undergraduates of Farasan Island, KSA. *J Nutr Sci* [Internet]. 2022 May 24;11:e36. Available from: [https://www.cambridge.org/core/product/identifier/S2048679022000337/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S2048679022000337/type/journal_article)
  10. Samson KLI, Fischer JAJ, Roche ML. Iron Status, Anemia, and Iron Interventions and Their Associations with Cognitive and Academic Performance in Adolescents: A Systematic Review. *Nutrients* [Internet]. 2022 Jan 5;14(1):224. Available from: <https://www.mdpi.com/2072-6643/14/1/224>
  11. Ali SA, Razzaq S, Aziz S, Allana A, Ali AA, Naeem S, et al. Role of iron in the reduction of anemia among women of reproductive age in low-middle income countries: insights from systematic review and meta-analysis. *BMC Womens Health* [Internet]. 2023 Apr 17;23(1):184. Available from: <https://bmcwomenshealth.biomedcentral.com/articles/10.1186/s12905-023-02291-6>
  12. Elmore C, Ellis J. Screening, Treatment, and Monitoring of Iron Deficiency Anemia in Pregnancy and Postpartum. *J Midwifery Womens Health* [Internet]. 2022 May;67(3):321–31. Available from: <https://onlinelibrary.wiley.com/doi/10.1111/jmwh.13370>
  13. Aoki C, Imai K, Owaki T, Kobayashi-Nakano T, Ushida T, Iitani Y, et al. The Possible Effects of Zinc Supplementation on Postpartum Depression and Anemia. *Medicina (B Aires)* [Internet]. 2022 May 29;58(6):731. Available from: <https://www.mdpi.com/1648-9144/58/6/731>
  14. Hamranani SST, Permatasari D, ... Faktor yang mempengaruhi kepatuhan minum tablet Fe pada remaja. *J ...* [Internet]. 2020; Available from: <http://jurnal.globalhealthsciencegroup.com/index.php/JPPP/article/view/1705>
  15. Ayuningtyas IN, Tsani AFA, Candra A, ... Analisis asupan zat besi heme dan non heme, vitamin B12 dan folat serta asupan enhancer dan inhibitor zat besi berdasarkan status anemia pada santriwati. *J Nutr ...* [Internet]. 2022; Available from: <https://ejournal3.undip.ac.id/index.php/jnc/article/view/32197>
  16. Wahyuningsih E, Hartati L, ... Analisis Resiko Kejadian Anemia pada Ibu Hamil. *Prof Heal ...* [Internet]. 2023; Available from: <http://www.ojsstikesbanyuwangi.com/index.php/PHJ/article/view/388>
  17. Prasetya G, Sartika AN, Sari AE, ... Edukasi Gizi Seimbang dan Penilaian Status Gizi Pada Remaja SMA/SMK di Kota/Kabupaten Bekasi. *J Mitra ...* [Internet]. 2023; Available from: <https://jmm.stikesmitrakeluarga.ac.id/index.php/jmm/article/view/159>
  18. Sembiring AC, Nita MHD, Nur A, ... Analisis Sistem Penyelenggaraan Makanan, Pola Makan,
-



- 
- Tingkat Konsumsi Zat Gizi dan Status Gizi Anak di Panti Asuhan Sonaf Maneka Kota Kupang. Kupang J ... [Internet]. 2022; Available from: <https://jurnal.poltekkeskupang.ac.id/index.php/KJFNR/article/view/687>
19. Fadhilah TM, Oktarina A, Firmansyah AM, ... Edukasi Pendidikan Gizi Terkait Bahaya Jajan di luar pada Anak Sekolah Dasar di Pedesaan dan Perkotaan. Panrita Abdi-Jurnal ... [Internet]. 2023; Available from: <http://journal.unhas.ac.id/index.php/panritaabdi/article/view/19194>
20. Marr C, Breeze P, Caton SJ. A comparison between parent and grandparent dietary provision, feeding styles and feeding practices when caring for preschool-aged children [Internet]. Appetite. Elsevier; 2022. Available from: <https://www.sciencedirect.com/science/article/pii/S019566632100684X>
21. 'Aqilah NMN, Rovina K, Felicia WXL, Vonnie JM. A review on the potential bioactive components in fruits and vegetable wastes as value-added products in the food industry [Internet]. Molecules. mdp.com; 2023. Available from: <https://www.mdpi.com/1420-3049/28/6/2631>
22. Priharwanti A, Mastuti DNR, Wasaraka YNK, ... Buku Ajar Gizi Dalam Daur Kehidupan [Internet]. books.google.com; 2024. Available from: [https://books.google.com/books?hl=en&lr=&id=Igd6EAAAQBAJ&oi=fnd&pg=PA8&dq=peran an+gizi+dalam+siklus+kehidupan&ots=14zTij3mJ6&sig=aYkFXmrOxPL\\_APo7SAK4EcrqoVk](https://books.google.com/books?hl=en&lr=&id=Igd6EAAAQBAJ&oi=fnd&pg=PA8&dq=peran+gizi+dalam+siklus+kehidupan&ots=14zTij3mJ6&sig=aYkFXmrOxPL_APo7SAK4EcrqoVk)
23. Riskesdas Jatim. Laporan Provinsi Jawa Timur RISKESDAS 2018. Kementerian Kesehatan RI. 2018. 191 p.
24. Niza AWC, Buanasita A, ... The Relationship Between Knowledge and Attitude About Anemia with Compliance to Consume Iron Supplement Tablets in Female Adolescents of Grade X at State .... J ... [Internet]. 2024; Available from: <https://jone.poltekkesdepkes-sby.ac.id/index.php/jone/article/download/370/52>
25. Muchtar F, Anggraeni NLA. Pengetahuan, Sikap dan Kepatuhan Mengonsumsi Tablet Tambah Darah (TTD) Pada Ibu Hamil Selama Masa Pandemi Covid-19. Nurs Care Heal Technol ... [Internet]. 2021; Available from: <https://www.ojs.nchat.id/index.php/nchat/article/download/28/39>
26. Fitria A, Aisyah S, Tarigan JS. Upaya Pencegahan Anemia Pada Remaja Putri Melalui Konsumsi Tablet Tambah Darah. ... J Pengabdian Kpd ... [Internet]. 2021; Available from: <http://journal.umuslim.ac.id/index.php/pkm/article/download/545/513>
27. Widiastuti A, Rusmini R. Kepatuhan konsumsi tablet tambah darah pada remaja putri. J Sains Kebidanan [Internet]. 2019; Available from: <https://ejournal.poltekkes-smg.ac.id/ojs/index.php/JSK/article/view/5438/0>
28. Saputri MD, Noerfitri N. Hubungan antara Pengetahuan, Sikap, Perilaku Terkait Anemia dan Asupan Zat Besi dengan Kejadian Anemia pada Mahasiswi Baru STIKES Mitra Keluarga. J Peneliti Kesehatan" SUARA ... [Internet]. 2022; Available from: <http://forikes-ejournal.com/ojs-2.4.6/index.php/SF/article/download/sf13216/13216>
29. Faizah P, Putri AR, Fatah FF, Natalia JD. Hubungan Pengetahuan Terkait Anemia dengan Status Gizi Pada Mahasiswi Universitas Negeri Medan [Internet]. download.garuda.kemdikbud.go.id. Available from: <http://download.garuda.kemdikbud.go.id/article.php?article=2974888&val=26605&title=Hubun>
-

---

gan Pengetahuan Terkait Anemia Dengan Status Gizi Pada Mahasiswi Universitas Negeri Medan

30. Rostikasari R. Gambaran Pengetahuan Remaja Putri Tentang Kebutuhan Gizi Selama Remaja di SMPN 1 Lumbung Kelas Viii dan IX Kabupaten Ciamis ... [Internet]. repository.unigal.ac.id; 2019. Available from: [http://repository.unigal.ac.id:8080/bitstream/handle/123456789/541/JURNAL\\_ILMIAH\\_RISKA.pdf?sequence=1&isAllowed=y](http://repository.unigal.ac.id:8080/bitstream/handle/123456789/541/JURNAL_ILMIAH_RISKA.pdf?sequence=1&isAllowed=y)
31. Handayani AS. Gambaran Pengetahuan, Kepatuhan Konsumsi Tablet Tambah Darah, Pola Konsumsi Makan dan Status Gizi Pada Remaja Putri di SMPN ... [Internet]. repo.poltekkestasikmalaya.ac.id; 2023. Available from: [http://repo.poltekkestasikmalaya.ac.id/1876/3/Halaman\\_Judul.pdf](http://repo.poltekkestasikmalaya.ac.id/1876/3/Halaman_Judul.pdf)
32. Damara Cd. Hubungan Pengetahuan Gizi, Kebiasaan Sarapan, dan Pola Konsumsi Pangan Jajanan dengan Status Gizi pada Remaja di SMPN 1 Tuban [Internet]. repository.unair.ac.id; 2019. Available from: [https://repository.unair.ac.id/90159/3/FKM.GZ.45-19\\_Dam\\_h\\_daftar\\_pustaka.pdf](https://repository.unair.ac.id/90159/3/FKM.GZ.45-19_Dam_h_daftar_pustaka.pdf)
33. Chen MF. Integrating the extended theory of planned behavior model and the food-related routines to explain food waste behavior. Br Food J [Internet]. 2023 Jan 16;125(2):645–61. Available from: <https://www.emerald.com/insight/content/doi/10.1108/BFJ-07-2021-0788/full/html>
34. Iqrawati RD. Kajian Kebiasaan Konsumsi Buah dan Sayur Mahasiswa Jurusan Gizi Poltekkes Kemenkes Yogyakarta [Internet]. eprints.poltekkesjogja.ac.id; 2020. Available from: <http://eprints.poltekkesjogja.ac.id/2863/>