The Effect of Small Group Discussions on the Knowledge and Attitudes of Female Adolescents Regarding Anemia

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ABSTRACT

Anemia in female adolescents can cause decreased concentration, impaired physical growth, reduced immunity, and lower academic achievement. This research aims to know the effect of small discussion group towards knowledge and attitude of 10th and 11th-grade female students related to anemia at SMAN 6 Pontianak. This is a quantitative research using quasi-experimental design, involving two groups namely experimental group and control group, each consisting of 88 respondents. The sampling technique was carried out using a purposive sampling method, with the research instrument in the form of a questionnaire consisting of 21 knowledge questions and 22 attitude questions. Knowledge scores rose notably in the experimental group after small group discussions (median = 23.83, p = 0.001), with significant improvements in the control group as well (median = 14.29, p = 0.001). Attitude scores increased in both groups (median = 11.00, p = 0.001). Mann–Whitney analysis showed significant post-intervention differences between groups for knowledge (p = 0.001) and attitudes (p = 0.009), indicating that the intervention effectively improved adolescent girls' knowledge and attitudes toward anemia. Small group discussions have been proven to be effective in improving the knowledge and attitudes of female adolescents regarding anemia.

INTRODUCTION

Adolescence is a critical transitional phase characterized by significant biological, psychological, and behavioral changes that directly impact nutritional needs. During this period, there is accelerated growth and increased physical activity, leading to a significant increase in the need for micro nutrients, particularly iron. Iron plays a crucial role in the process of hemoglobin formation and supports neurological function through its involvement in mono amine synthesis, energy metabolism, and the regulation of neurotransmitters, including dopamine. Therefore, meeting iron needs in adolescents, particularly female adolescents, is crucial for supporting optimal growth and

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cognitive development (Diniyati, Kusnandar and Handayani, 2025).

Anemia is a condition where the oxygen-carrying capacity of the blood is not adequately met. In female adolescents, this condition is characterized by a hemoglobin level of ≤ 12 g/dL. This condition has a wide-ranging impacts on adolescent health, including decreased physical ability, concentration, immunity, and academic and cognitive performance. Additionally, anemia in female adolescent can potentially lead to long-term impacts on reproductive health and increase the risk of complications in later stages of pregnancies. Globally, anemia remains a significant public health issue, with a prevalence rate of 33% in women of childbearing age, particularly in Asia and Africa. (Sari *et al.*, 2022) (Samria and Fitriani, 2022) .

Iron deficiency anemia is the major cause of morbidity in female adolescents in low-and middle-income countries and contributes significantly to the global disease burden. The World Health Organization reports that approximately 30% of women and girls aged 15–49 years old in the worldwide, equivalent to 586 million people, are anemic, while 41% of children under 5 years old are also affected. In Indonesia, the prevalence of anemia shows an increasing trend, rising from 37.1% in 2013 to 48.9% in 2018, with the highest proportion found in the 15–24 year-old age group. At the regional level, the prevalence of anemia among female adolescents in West Kalimantan province increased from 18.28% in 2019 to 23.4% in 2020, while in Pontianak it was found to be 16.4% (Ningrum *et al.*, 2025); (Primadewi and Asri, 2025); (Damayanti, Dianna and Rakhmawati, 2025) (Octavianty, Petrika and Agusanty, 2024).

As a preventive measure against anemia among adolescents, Indonesian government has implemented a program to provide iron supplements for female adolescents. Although the national coverage of iron supplementation in 2023 had reached 78.9%, there are still wide disparities in achievement among provinces. The high program coverage has not been fully followed by effective implementation, which is influenced by the level of knowledge, attitudes, and compliance of adolescents in consuming iron supplementation (Kementerian Kesehatan Republik Indonesia, 2024). This indicates that supplementation-based interventions need to be

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accompanied with sustainable educational approaches. Anemia in adolescents not only affects their physical health but also impacts cognitive function, memory, concentration, and academic performance (Safa and Widaningsih, 2023) . Adolescents with anemia tend to have lower academic performance and experience delays in motor, cognitive, and socio-emotional development. Therefore, preparing the nutritional and health status of adolescents is an important investment in improving the quality of human resources. (Maulina, Maryuni and Sari, 2023).

Health promotion through an educational approach has been effectively proven in improving the knowledge and attitudes of female adolescent regarding anemia prevention. Participatory learning methods, such as small group discussions, allow adolescents to play an active role in the learning process, improving motivation and strengthening conceptual understanding. Group discussions also provide a space for adolescents to share their experiences and build positive attitudes toward health behaviors, including adherence to iron supplementation and the adoption of a nutritious diet. (Asmawati *et al.*, 2021); (Deliman and Adhiputra, 2024).

Local condition at SMA Negeri 6 Pontianak indicates the urgency of the anemia problem in female adolescent. The result of monitoring and evaluation of health programs in Saigon Health Center service area show that out of 114 10th-grade female students who underwent anemia screening, 42.11% were detected as having mild to moderate anemia. Preliminary studies conducted by the researcher also showed a low level of knowledge in female adolescents regarding the symptoms, causes, and prevention of anemia. These findings indicate an information gap and the need for more structured and contextual educational interventions within the school environment.

Based on the existing problems, this research was conducted to analyze the effect of small group discussions on the knowledge and attitudes of 10th and 11th grade female adolescents regarding anemia at SMA Negeri 6 Pontianak. This research is expected to contribute scientifically to the development of school-based health promotion strategies and serve as a foundation for formulating more effective and

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sustainable anemia prevention interventions for female adolescents.

RESEARCH METHODS

This research is a quantitative research with a quasi-experimental approach that applies a two-group pretest-posttest design with a control group. This research was conducted at SMA Negeri 6 Pontianak, with a population consisting of all female adolescents in 10th and 11th grade. There were 176 respondents (55.87% from population) selected using the Slovin formula and purposive sampling. The inclusion criteria were willingness to be a respondent, while the exclusion criteria included those who were absent during the intervention, refused to be respondents, or were sick.

The instrument is a questionnaire

The study instrument was a structured questionnaire designed to assess knowledge and attitudes regarding anemia. Prior to data collection, the questionnaire underwent a validity test involving 30 female students in grades 10th and 11th at SMA Negeri 9 Pontianak, selected through random sampling from a total population of 249 students. Most questionnaire items were deemed valid, as they demonstrated item–total correlation coefficients (r-count) exceeding the critical r-table value (0.374), items that did not meet the validity criteria were excluded. Only valid items were subsequently used to ensure accurate measurement of the knowledge and attitude variables.

Data were analyzed using bivariate analysis. The Kolmogorov–Smirnov test was applied to assess data normality. As the data were not normally distributed, the Wilcoxon signed-rank test was used to examine pre- and post-intervention differences within each group, while the Mann–Whitney U test was employed to compare intervention effects between the experimental and control groups.

This research has obtained ethical approval with number KEPK 011/KEPK/IX/2025.

RESULTS AND DISCUSSION

Based on the research conducted with 176 respondents and divided into two groups, namely experimental group and control group, the results obtained are as follows:

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Table 1. The Comparison of Respondent Characteristics

Characteristic	Experimental group		Control group	
	n	%	n	%
Age				
14 years old	4	4.6	2	2.3
15 years old	30	34.1	10	11.4
16 years old	42	47.7	64	72.7
17 years old	12	13.6	12	13.6
Menarche age				
11 years old	53	60.2	24	27.3
12 years old	23	26.1	19	21.6
13 years old	12	13.6	45	51.1
History of consuming iron tablets				
Yes	80	90.9	69	78.4
No	8	9.1	19	21.6
Anemia status				
Normal anemia	60	68.2	44	50.0
Mild anemia	22	25.0	29	33.0
Moderate anemia	6	6.8	15	17.0
Anemia counseling				
Yes	52	59.1	57	64.8
No	36	40.9	31	35.2

Based on table 1, the majority of respondents in the experimental group were 16 years old (47.7%), with the most common age of menarche being 11 years old (60.2%). Most respondents had a history of consuming iron tablets (90.9%), normal anemia status based on hemoglobin levels (68.2%), and had previously received anemia counseling (59.1%). In the control group, the majority of respondents were also 16 years old (72.7%), with the most common age at menarche being 13 years old (51.1%). A history of consuming iron tablets was found in 78.4% respondents, normal anemia status in 50.0%, and a history of previous anemia counseling in 64.8% respondents.

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Table 2. The Knowledge of Female Adolescents Experimental Group Before And After Small Group Discussions

Variable	Total (n=88)	Percentage
The knowledge of female adolescents before being given small group discussions regarding anemia		
a. Good (>75-100%)	43	48.9%
b. Fair (56-75%)	36	40.9%
c. Poor (<56%)	9	10.2%
The knowledge of female adolescents after being given small group discussions regarding anemia		
a. Good (>75-100%)	84	95.5%
b. Poor (56-75%)	4	4.5%

Based on table 2, it is known that almost the majority of respondents in the experimental group had a good level of knowledge before being given a small group discussion regarding anemia using leaflet, totaling 43 people (48.9%) and almost all respondents had a good level of knowledge after being given a small group discussion regarding anemia using leaflet, totaling 84 people (95.5%).

Table 3. The Knowledge of Female Adolescents in The Control Group Before And After Receiving a Classical Lecture Regarding Anemia

Variable	Total (n=88)	Percentage
The knowledge of female adolescents before being given classical lecture regarding anemia		
a. Good (>75-100%)	53	60.2%
b. Fair (56-75%)	30	34.1%
c. Poor (<56%)	5	5.7%
Knowledge of female adolescents after being given classical lecture regarding anemia		
a. Good (>75-100%)	81	92.0%
b. Fair (56-75%)	7	8.0%

Based on Table 3, the majority of respondents in the control group showed a good level of knowledge before receiving a classical lecture regarding anemia, 60.2%. After the intervention, almost all respondents showed a good level of knowledge, which was 92%.

Table 4 The Attitudes of Female Adolescents in The Experimental Group Before And After Small Group Discussions.

Variable	Total (n=88)	Percentage
The attitudes of female adolescents before being given small group discussions regarding anemia		
a. Positive (≥65-76)	40	54.5%
b. Negative (53-64)	48	45.5%

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The attitudes of female adolescents after being given small group discussions regarding anemia		
a. Positive (≥77-88)	44	50%
b. Negative (66-76)	44	50%

Based on Table 4, the majority of respondents in the experimental group showed a positive attitude before receiving a small group discussion regarding anemia using leaflets, positive (≥65-76). After the intervention, half of the respondents showed a positive attitude, which is positive (≥77-88).

Table 5 The Attitudes of Female Adolescents in The Control Group Before And After Classical Lecture Regarding Anemia

Variable	Total (n=88)	Percentage
The attitudes of female adolescents in the control group before being given classical lecture regarding anemia		
a. Positive (≥61-75)	61	69.3%
b. Negative (47-60)	27	30.7%
The attitudes of female adolescents in the control group after being given classical lecture regarding anemia		
a. Positive (≥72-85)	66	75%
b. Negative (58-71)	22	25%

Source: Primary Data (2025)

Based on Table 5, most respondents in the control group have positive attitude before being given a classical lecture regarding anemia. After the intervention, the proportions of respondents with positive traits remained dominant and increased to (≥72-85).

Table 6 The Normality Test of Paired Sample Data

Variable	Before			After		
	Median	***S.D***	**Data Normality**	***Median***	***S.D***	**Data Normality**
The knowledge of experimental group	71.43	9.65	0.000	95.24	7.79	0.001
The attitude of experimental group	65.00	5.49	0.200	76.00	5.07	0.038
The knowledge of control group	76.19	8.63	0.000	90.48	8.19	0.001
The attitude of control group	64.00	6.39	0.017	75.00	6.46	0.045

Based on Table 6. the result of the Kolmogorov-Smirnov normality test on the knowledge variable showed significance values in both experimental groups and control groups, either before and after the intervention, <0.05. Therefore, the knowledge data showed a non-normal distribution pattern.

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The result of Kolmogorov–Smirnov normality test for the short variable indicate that the data is not normally distributed. In the experimental group, the significance value before the intervention was 0.200 and after the intervention was 0.038, while in the control group, the values were 0.017 and 0.045. These results indicate that the data is not normally distributed, so the data analysis uses a non-parametric statistical test.

Table 7 The Result of The Wilcoxon Test for The Knowledge of Female Adolescents in The Experimental And Control Groups Before and After The Intervention

Group	*Median* Before	*Median* After	Deviation	*p-value*
Exsperimental	71.43	95.26	23.83	0.001
Control	76.19	90.48	14.29	0.001

Based on Table 7. the experimental group showed a significant increase in median knowledge after the small group discussion intervention, with a media deviance of 23.83 ($p < 0.05$), indicating the effectiveness of small group discussions in improving knowledge regarding anemia in female adolescents. A significant increase in median knowledge was also found in the control group before and after the intervention, with a median deviation of 14.29 ($p < 0.05$).

Table 8 The Result of the Wilcoxon Test for The Attitudes of Female Adolescents in The Experimental and Control Groups Before and After The Intervention

No	Group	*Median* Before	*Median* After	Deviation	*p-value*
1.	Experiment	65.00	76.00	11.00	0.001
2.	Control	64.00	75.00	11.00	0.001

Based on Table 8, there was a significant increase in the median attitude in the experimental group before and after the small group discussion intervention, with a media deviation of 11.00 and a p-value < 0.05. This result indicates that small group discussions are effective in improving female adolescents' positive attitude toward anemia.

In the control group, a significant increase in median attitude was also found before and after the intervention, with a median deviation of 11.00 and a p-value < 0.05, indicating a statistically significant change in the attitudes of female adolescents.

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Table 9 The Normality Test for Unpaired Sample Data

No	Treatment	*Median*	*S.D*	Data Normality
1.	The difference in knowledge value of the experimental group	19.04	6.12	0.001
2.	The Difference of knowledge value of control group	14.28	6.53	0.001
3.	The difference of attitude value of the experimental group	11.00	2.08	0.001
4.	The difference in attitude value of the control group	12.00	1.71	0.001

Based on Table 9, the results of Kolmogorov–Smirnov normality test on the knowledge and attitude deviation data between the experimental group and control groups show that all significance values are ≤ 0.05. Therefore, it can be concluded that the unpaired sample data do not follow a normal distribution.

Table 10 The Mann Whitney Test

Treatment	Value *p*
The difference of knowledge value	0.001
The deviation of attitude value	0.009

Based on Table 10, there is a significant difference in the knowledge of female adolescents between the experimental and control groups after the small group discussion intervention ($p < 0.05$), which confirms the effectiveness of the intervention in improving knowledge regarding anemia. Additionally, the difference in attitudes among the two groups is also statistically significant, indicating the effect of the intervention on changes in female adolescents' attitudes. Overall, the small group discussion intervention affects knowledge and attitudes, with a stronger impact in improving knowledge compared to changing attitudes.

Discussion

1. The characteristics of 10th and 11th grade female adolescents regarding anemia

Most of the respondents were 16-year-old female adolescents (47.7%) in the middle adolescence phase, a vulnerable period to health issue due to increased nutritional needs that are often unmet, potentially increasing the risk of anemia (Ompusunggu, Kalsum and Andraini, 2023; Podungge, Nurlaily dan Mile, 2022 ; Kusnadi, 2021). Additionally, majority of respondents reported their age at menarche as 11 years old (60.2%), which is still within the normal range for menarche, which is 11 to 14 years old (Kurniawati and Supriyanti, 2025; Asriyanti *et al.*, 2024; Syaflindawati, 2023).

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Most female adolescents have a history of consuming iron tablets (90.9%) although it is higher than the previous research (Asriyanti *et al.*, 2024). Consuming iron tablets plays an important role in preventing anemia and is affected by the school environment's support (Izzara *et al.*, 2023). The majority of respondents were classified as having normal anemia (68.2%), and more than half had received anemia counseling (59.1%) which contributed to an improvement in adolescents' knowledge and understanding of anemia prevention through balanced diets and adherence to iron supplementation (Syaflindawati, 2023; Wahyuni *et al.*, 2023; Setiani, Kristanto and Warsini, 2023).

Based on these findings, improvements in hemoglobin levels among female adolescents are contingent upon adequate nutritional intake and sustained adherence to iron supplementation. Moreover, support from schools and families is essential in shaping and reinforcing positive knowledge and attitudes, which in turn strengthens behavioral compliance and enhances the overall effectiveness of anemia prevention programs targeting female adolescents

2. The knowledge of 10th and 11th grade female adolescents regarding anemia before being given a small group discussion

The results of the research before intervention showed that the knowledge level of female adolescents regarding anemia in both experimental and control groups was mostly in good category, at 48.9% and 60.2%, although some respondents still had insufficient knowledge. After the experimental group received a small group discussion intervention, there was a significant increase in knowledge, marked by an increase in the proportion of respondents in good knowledge category to 95.5%.

This result aligns with Ernawati's research *et al.* (2022), which describes a significant increase in female adolescents' knowledge levels regarding anemia after the health education intervention ($p = 0.001 < \alpha = 0.05$). This confirms that small group discussions are more efficient in broadening female adolescents' horizons compared to classical lecture methods.

3. The attitudes of 10th and 11th grade female adolescents regarding anemia before small group discussions

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Before the intervention, female adolescents in grades 10 and 11 in both experimental and control groups were categorized as having positive or negative attitudes. In the experimental group, positive attitudes ranges from score ≥ 65–76 and negative 53–64, while in the control group, positive attitudes ranged from ≥ 61–75 and negative 47–60. Generally, both groups showed a tendency toward a positive attitude regarding anemia before intervention.

After small group discussion intervention, positive attitudes in the experimental group increased to a higher score range (77-88). This result aligns with Ernawati's research *et al.* (2022), which reported an increase in female adolescents attitudes regarding anemia after health education ($p = 0.016 < \alpha = 0.05$), thus confirming that small group discussions are more effective than classical lectures in strengthening positive attitudes toward anemia prevention.

4. The knowledge of 10th and 11th grade female adolescents regarding anemia after being given small group discussion

The research results indicate that after the intervention, the knowledge levels of 10th and 11th grade female adolescents regarding anemia in the experimental group receiving small group discussions were mostly in good category, higher than the control group receiving lectures. Respondents in the experimental group demonstrated a more comprehensive understanding of the basic concepts of anemia, including the function of anemia on learning concentration, and iron deficiency anemia as the most common type experienced by female adolescents.

The increase in knowledge in the experimental group is evident from the rise in the proportion of good knowledge category from 48.9% before the intervention to 95.5% after the intervention. This finding is consistent with Septiana's research *et al.* (2025), (Styaningrum and Metty (2021); Ernawati *et al.*, (2022) which states that health education using interactive methods has a significant impact on improving knowledge regarding anemia among female adolescents ($p < 0.05$). This finding asserts that discussions in small groups are more efficient than radical lectures in improving the knowledge of female adolescents.

5. The Attitudes of 10th and 11th grade female adolescents

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regarding anemia after small group discussions

After the intervention, the attitudes of 10th and 11th-grade female adolescents in the experimental and control groups were categorized as positive and negative. In the experimental group, positive attitudes ranged from a score of ≥77–88 and negative ranged from 66–76, while in the control group, positive attitudes ranged ≥72–85 and negative 58–71. The increase in positive attitudes was more pronounced in the experimental group after small group discussions compared to classical lectures. This increase is reflected in the respondents' acceptance of the importance hemoglobin level testing and the adoption of a healthy diet as a preventive measure for anemia. This result is consistent with Adlu and Fayasari (2023) research and is supported by the theory that good knowledge promotes the formation of positive attitudes toward anemia prevention, including the consumption of iron-rich foods (Ernawati *et al.*, 2022; Rakhshani *et al.*, 2025).

6. The differences in knowledge and attitudes between 10th and 11th-grade female adolescents in the experimental groups

The statistical test results show that the small group discussion intervention significantly improved the knowledge and attitudes of 10th and 11th-grade female adolescents regarding anemia ($p < 0.05$). The Wilcoxon test showed that the median knowledge devian in the experimental group (23.83) was higher than in the control group (14.29), and there was a significant increase in positive attitudes in both groups ($p = 0.001$). This finding aligns with the research by Adlu and Fayasari (2023) and Ompusunggu, Kalsum and Andraini (2023) who stated that health education interventions using appropriate methods and media significantly impact the knowledge and attitudes of female adolescents.

The result of the Mann Whitney test indicate that small group discussions are more effective in improving knowledge than changing attitudes (p knowledge = 0.001; p attitude = 0.009). This point of effectiveness is supported by the use of simple, attractive, and easy-to-understand leaflet media, which minimizes information delivery errors. (El-Mahmudiyah and Kurniasari, 2024; Ludiana and Fitri, 2024; Sinaga *et al.*, 2024). Therefore, small group

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discussions using leaflets can be implemented as asn effective health education strategy in school through School Health program, Public Health Center counseling and biology lessons to prevent anemia in female adolescents.

CONCLUSIONS

Small group discussion using educational leaflet are effective in improving the knowledge and attitudes of female adolescents regarding anemia. This intervention showed a significant improvement ($p < 0.05$), with a greater median knowledge difference compared to attitude changes, in both experimental and control groups, confirming that interactive educational methods are more effective on the cognitive aspect than the affective one. Therefore, small group discussions using leaflets are recommended to be integrated sustainably into School Health Program, Public Health Program, and school learning as an effort to prevent anemia in female adolescents.

LITERATURE

Adlu, R. and Fayasari, A. (2023) 'Effect of Nutrition Education using the Podcast Method on Adolescent Girls' Knowledge and Attitudes on Anemia in Central Jakarta', *AcTion: Aceh Nutrition Journal*, 8(2). Available at: https://doi.org/10.30867/action.v8i2.696.

Asmawati, N. *et al.* (2021) 'Pengaruh Penyuluhan Menggunakan Media Video Terhadap Pengetahuan dan Sikap Tentang Anemia Pada Remaja Putri SMPN 1 Turikale Tahun 2020', *Jurnal Gizi dan Kesehatan*, 13(2).

Asriyanti, R. *et al.* (2024) 'Program Pemberian Tablet Fe di Sekolah dan Penurunan Kejadian Anemia pada Remaja Putri di Kota Padang Program', *Amerta Nutrion*, 8(3). Available at: https://doi.org/10.20473/amnt.v8i3SP.2024.16.

Damayanti, D.F., Dianna and Rakhmawati (2025) 'Upaya Pencegahan Stunting Melalui Program Penyuluhan Kesehatan bagi Remaja untuk Mengatasi Anemia dengan Pemberian Buku Saku', *Community Proffesional Service Journal*, 3(1).

Deliman, S. and Adhiputra (2024) 'Implementasi Bimbingan Kelompok Dengan Teknik Diskusi Kelompok Untuk Meningkatkan Motivasi Belajar Siswa Kelas X AKL SMK Wira Bhakti Denpasar Tahun Pelajaran 2023/2024', *Jurnal Bimbingan dan Konseling*, 3(1).

Available Online at https://journal.ibrahimy.ac.id/index.php/oksitosin
p-ISSN: 2354-9653| e-ISSN: 2597-6524

Diniyati, H., Kusnandar, K. and Handayani, S. (2025) 'The Effect of Peer Grup Education and E-Booklet on Protein and Iron Intake of Adolescent Girls', *Media Penelitian dan Pengembangan Kesehatan*, 35(1).

El-Mahmudiyah, R.N.F. and Kurniasari, R. (2024) 'The Effect of Providing Educational Media on Anemia and Nutrition on the Prevention of Anemia in Young Women in Bekasi City', *Media Gizi Indonesia*, 19(1).

Ernawati, E. *et al.* (2022) 'The Effects of Anemia Education Usig Web-Based She Smart to Improve Knowledge, Attitudes, and Practice in Adolescent Girls', *International Journal of Health & Medical Sciences*, 5(1). Available at: https://doi.org/10.21744/ijhms.v5n1.1833.

Indonesia, K.K.R. (2023) *Profil Kesehatan Indonesia Tahun 2023*. Jakarta.

Izzara, W.A. *et al.* (2023) 'Penyebab, Pencegahan dan Penanggulangan Anemia pada Remaja Putri (Studi Literatur)', *Jurnal Multidisiplin West Science*, 02(12).

Kurniawati, D. and Supriyanti (2025) 'Gambaran Status Gizi, Anemia, dan Usia Menarche Pada Siswi SDIT Smart Insani Yukum Jaya, Lampung Tengah Tahun 2025', *Madani: Jurnal Ilmiah Multidisiplin*, 3(2).

Kusnadi, F.N. (2021) 'Hubungan Tingkat Pengetahuan Tentang Anemia Dengan Kejadian Anemia Pada Remaja Putri', *JMH (Jurnal Medika Hutama)*, 03(01).

Ludiana, L. and Fitri, N.L. (2024) *Promosi Kesehatan*. Malang: PT. Literasi Nusantara Abadi Grup.

Maulina, W., Maryuni, S. and Sari, E.K. (2023) 'Pengaruh Pendidikan Kesehatan Dengan Media Video Terhadap Pengetahuan Remaja Putri Tentang Pencegahan Anemia', *Jurnal Ilmu Kesehatan Indonesia (JIKSI)*, 4(1).

Ningrum, D. *et al.* (2025) 'Improving The Role Of Family In Preventing Anemia In Adolescent Girls Through Health Education : A Systematic Literature Review', *Oshada; Jurnal Kesehatan*, 2(1).

Octavianty, S., Petrika, Y. and Agusanty, S.F. (2024) 'Gambaran Tingkat Pengetahuan Tentang Anemia, Asupan Zat Besi, Dan Konsumsi Tablet Tambah Darah Pada Remaja Putri Di SMA Muhammadiyah 1 Kota Pontianak', *Media Gizi Khatulistiwa*, 1(1).

Ompusunggu, B., Kalsum, U. and Andraini, R. (2023) 'Effectiveness of Anemia Prevention Education with Video Media and Leaflets on Knowledge and Attitudes of Young Women in Consuming Blood-Added Tablets at Senior High School 1 Muara Lawa', *KESANS: International Journal of Health and Science*, 2(9).

Podungge, Y., Nurlaily, S.Z. and Mile, S.Y.W. (2022) *Buku Referensi Remaja Sehat Bebas Anemia*. Yogyakarta: Deepublish.

Primadewi, K. and Asri, N.K.I.P. (2025) 'Efforts to Prevent Anemia in Adolescent Girls Through Education : A Sistematic Literature Review', in *Proceedings of International Conference on Health Science, Practice, and Education*. Semarang: Proceedings of International Conference on Health Science, Practice, and Education.

Rakhshani, T. *et al.* (2025) 'The Effect of Educational Intervention Based on the Theory of Planned Behavior to Prevent Iron Deficiency Anemia in Female High School Students', *BMC Public Health*, 25(1). Available at:https://doi.org/10.1186/s12889-025-22711-6.

Safa, S. and Widaningsih, I. (2023) *Pengaruh Penyuluhan Tentang Anemia Dengan Media Leaflet Terhadap Peningkatan Pengetahuan Konsumsi Tablet Tambah Darah Pada Remaja Putri*. Repository Universitas Medika Suherman.

Samria, S. and Fitriani, L. (2022) 'Pengaruh Penyuluhan Kesehatan Tentang Anemia Terhadap Pengetahuan dan Kepatuhan Siswi Remaja Mengkonsumsi Tablet Fe', *JKA (Jurnal Keperawatan Abdurrab)*, 05(02).

Sari, P. *et al.* (2022) 'The Effect of Mobile Health (m-Health) Education Based on WANTER Application on Knowledge, Attitude, and Practice (KAP) Regarding Anemia among Female Students in a Rural Area of Indonesia', *Healthcare (Switzerland)*, 10(10). Available at:https://doi.org/10.3390/healthcare10101933.

Septiana, K.S. *et al.* (2025) 'The Influence of Anemia Education Media on Increasing Self-Awareness and Compliance in Consuming Iron Supplements in Adolescent Girls: A Systematic Review', *International Journal of Women's Health*, 17(June). Available at: https://doi.org/10.2147/IJWH.S532950.

Setiani, D.Y., Kristanto, B. and Warsini (2023) 'Penyuluhan Kesehatan Tentang Dampak Anemia Pada Remaja', *Abdias Kosala*, 2(1).

Sinaga, J. *et al.* (2024) 'Pengaruh Media Leaflet Terhadap Pengetahuan Ibu Hamil Tentang Anemia', *HJK: Holistik Jurnal Kesehatan*, 18(9).

Styaningrum, S.D. and Metty, M. (2021) 'Healthy Millennial Card Games as an Anemia Prevention Education Media Among Female Adolescent at Boarding School', *Ilmu Gizi Indonesia*, 04(02).

Syaflindawati (2023) 'Hubungan Pengetahuan Tentang Anemia Dan Lama Menstruasi dengan Kejadian Anemia Pada Remaja Putri', *Jurnal Kesehatan Lentera 'Aisyiyah*, 6(1).

Wahyuni, A.N. *et al.* (2023) 'Penyuluhan Kesehatan tentang

Pencegahan dan Penanganan Anemia pada Siswi di MTS Al-Munawwar', *Kolaborasi: Jurnal Pengabdian Masyarakat*, 03(02). Available at: https://doi.org/10.56359/kolaborasi.

Available Online at https://journal.ibrahimy.ac.id/index.php/oksitosin
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