



EDUCATION EFFECTIVITY IN INCREASING ADOLESCENT'S FEMALE AWARENESS IN PREVENTING ANEMIA

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ABSTRACT

Adolescents are more susceptible to anemia resulting from iron deficiency. Diverse initiatives have been implemented to reduce the incidence of anemia, which is rising annually. The undertaken efforts do not instantaneously convert an individual into an expert in anemia prevention. This study seeks to determine young women's knowledge and self-awareness levels, along with the factors that affect self-awareness. The design of this study was quasi-experimental, employing a distinct sample for the pretest and posttest. This study was carried out in SMAN 1 Kebomas from July to September 2024, with participants who matched the inclusion criteria. The study sample comprised 79 individuals selected through a purposive sampling method. The instruments used to conduct research were questionnaires, which was adopted from previous similar researchers and have been retested with a reliability test result of 0.818 namely about knowledge before and after education, and strengthening self-awareness to prevent anemia. The Paired T-test and Linear Regression were employed for analysis. The study indicates a significant difference in the average levels of knowledge and self-awareness, with a p-value of $0.000 < 0.05$. The data indicates a significant correlation between family support and self-awareness, with a p-value of $0.03 < 0.05$, as well as between peer support and self-awareness, with a p-value of $0.01 < 0.05$. The provision of education can enhance the understanding and self-awareness of young women, bolstered by diverse sources of information, particularly familial and peer support.

Keywords: education; knowledge growth; self-awareness

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INTRODUCTION

Adolescents represent a developmental stage characterized by significant growth, along with transformations in hormonal, cognitive, and socio-emotional aspects. Mappiare (Dewi, 2021) delineates the age range for young women as 12 to 21 years, further categorizing it into two segments: early adolescents (12 to < 17 years) and late young women (17 to 21 years). According to Mappiare, at this age, the average adolescent enrolls in senior high school. This demographic is susceptible to nutritional issues due to an elevated requirement for nutrients essential for growth and development. Additionally, variations in dietary patterns and lifestyle frequently occur, along with specific nutritional requirements. This is particularly evident in adolescents who are pregnant, have chronic illnesses, consume alcohol or illicit substances, or follow extreme diets (Almatsier et al., 2011). Adolescents in Indonesia face a triple burden of malnutrition, characterized by stunting, obesity, wasting, and micronutrient deficiencies such as anemia (Nations Children's Fund, 2021). Nutritional anemia is a prevalent nutritional issue among adolescents in Indonesia.

Anemia is characterized by a reduction in the number of red blood cells or hemoglobin, the protein responsible for oxygen transport from the lungs to body organs. This condition is indicated by a hemoglobin level below 11 g/dl, reflecting a decrease in erythrocyte mass (Hasdianah & Suprpto, 2016). Anemia is defined as a condition in which the hemoglobin level in the body is inadequate to transport oxygen to all organs and tissues. Normal

hemoglobin levels in men and women are defined as ≥ 12 g/%. Mild anemia is classified as 10-11 g/%, moderate anemia as 8-10 g/%, and severe anemia as < 8 g/% (Ministry of Health, 2018). According to data from Unicef (2019), 25% of adolescents female are affected by anemia, a rate that is significantly higher than the 10% incidence observed in adolescents male. Study indicates that anemia among adolescents constitutes the most significant nutritional issue in the country (Chandrakumari et al., 2019). Approximately 90% of individuals with anemia reside in developing countries (Gonete et al., 2018). In 2016, anemia affected 33% of women of reproductive age (15 to 49 years), totaling approximately 613 million individuals worldwide (Astuti & Kulsum, 2020).

Data from the Basic Health Research (Riskesdas) conducted in 2007, 2013, and 2018 indicate a rising prevalence of anemia among adolescents female (Dipo et al., 2020), aged 15-24 years, with rates of 6.9%, 18.4%, and 32% respectively (Ministry of Health, 2018). The data from Basic Health Research indicates a 32% increase in the prevalence of anemia among young women in 2018 across the three periods analyzed. This indicates that the condition constitutes a public health issue, as the prevalence of anemia in adolescents female exceeds the 20% threshold (Nadiyah et al., 2022). Anemia in adolescents female is inversely associated with school or cognitive performance during adolescence (Mosino et al., 2020). In East Java, 42.1% of adolescents female are affected by anemia, classified as a severe condition (East Java Health Department, 2020). In Gresik Regency, screening conducted in 2019 on 250 adolescents female, including those from middle school, Islamic junior high school, high school, and Islamic senior high school, revealed that 27.83% of middle school and Islamic junior high school students were affected by anemia. Among high school or Islamic senior high school students, 40.95% of adolescents female are reported to be anemic (Ikhsan, 2019). In 2023, the anemia rate among adolescents female in Gresik Regency is 27%, exceeding the national prevalence of 21.70%. In East Java, the prevalence of anemia stands at 5.8% (Hastuti, 2024).

Anemia significantly affects adolescents female, leading to deteriorations in health and academic performance (Margarini, 2021). Iron deficiency anemia in young women negatively affects various aspects of health, including diminished motivation to study and concentrate, pallor, frequent fatigue, reduced energy levels, bodily weakness, and increased drowsiness. Additionally, it lowers immune resistance, making individuals more susceptible to illness (Ministry of Health, 2018). Anemia in adolescents female is attributed to several factors, including menstruation and significant blood loss, insufficient intake of iron and protein, adherence to an inadequate diet, and rapid growth that is not matched by appropriate nutritional intake (Margarini, 2021). Briawan (2014) indicates that insufficient intake of iron and other nutrients, including Vitamins A, C, B12, folate, and riboflavin, along with errors in iron consumption such as ingesting iron with substances that hinder its absorption are significant factors to consider. Helmyati (2022) identified that adolescent lifestyles, including inadequate nutritional intake, particularly of iron, the consumption of tea or coffee during meals or alongside blood supplement tablets, and insufficient physical activity, contribute to the prevalence of anemia. Lakshmanrao (2013) stated that: (1) breakfast habits are important as breakfast contributes to daily energy and nutrient intake; (2) a mother's education level can influence her knowledge and skills in food preparation, thereby affecting the health status of all family members; (3) economic status can impact a family's purchasing power and food choices. Margarini (2021) asserts that adolescents female must maintain health and prevent anemia by consuming iron- and protein-rich foods to facilitate hemoglobin formation and iron absorption. Additionally, a balanced diet inclusive of fruits, vegetables, and vitamins A, C, and E is essential.

The Indonesian Government has implemented WHO recommendations from the 65th World Health Assembly (WHA), which established an action plan and global targets for maternal, infant, and child nutrition. The goal is to reduce the prevalence of anemia by 50% in women of childbearing age by 2025. This will be achieved by intensifying prevention and control measures in adolescents female and women of childbearing age, prioritizing the provision of school-based blood supply tablets, and enhancing food fortification with iron and folic acid (Ministry of Health, 2018). adolescents female can take several measures to overcome and prevent anemia: (1) Increase intake of iron-rich foods; (2) Utilize iron supplementation through blood-enhancing tablets; (3) Enhance consumption of fruits and vegetables for vitamin C; (4) Increase intake of animal protein sources; (5) Avoid tea and coffee during meals or when taking blood support tablets; and (6) Engage in regular exercise or physical activity (Wouthuyzen & Assen, 2015).

Cooperation from both the government and the community, particularly among adolescent, is essential in preventing and addressing anemia (Helmyati, 2022). Consequently, adolescents female are anticipated to adopt strategies for anemia prevention in their daily routines and to be motivated by their self-awareness. Self-awareness refers to the capacity to comprehend and identify oneself thoroughly, encompassing strengths, weaknesses, values, goals, and personal preferences. Individuals can enhance their quality of life by fostering self-awareness (STAIKU, 2023). The role of self-awareness is twofold: (1) to regulate all emotions; and (2) to enable individuals to manage themselves in addressing their problems (Yolanda et al., 2021). Devito (Fadilah & Prabowo, 2023) outlines several steps individuals can take to enhance self-awareness. (1) Self-talk refers to the internal dialogue individuals engage in to comprehend their emotional states; (2) listening to others involves responding to external communication; (3) actively seeking self-information facilitates self-evaluation and enhances self-awareness; (4) opening up entails addressing barriers such as rejection of criticism and negative self-defense mechanisms.

Previous research by Agustini & Wahyuningsih (2023) indicates that information support, peer support, family support, and school support significantly influence adolescent self-awareness in the prevention of anemia among adolescents. Insufficient knowledge regarding anemia in adolescents may result in a deficiency of self-awareness, hindering efforts to prevent the condition (Novelia, et al, 2022). The findings from the Student Activities Program conducted by Rachmat et al. (2023) indicate an increase in knowledge and intention to prevent anemia among female students at Barrang Lompo High School before and after the educational intervention. Education represents a progression from ignorance to knowledge. Over time, the education system has evolved beyond theoretical frameworks, incorporating advanced information technology into the learning process (Fadillah, 2021). Preventing anemia in adolescents female may involve educational initiatives aimed at enhancing awareness of the condition, which could lead to modifications in health-related behaviors (Puspitasari, 2020). Understanding anemia enhances teenagers' self-awareness, enabling them to adapt to occurring changes (Yuliasari, 2020). During adolescence, individuals start to contemplate their aspirations, consider ideal traits for themselves and others, engage in self-comparison, and seek systematic approaches to problem-solving (Maimuna & Oktariani, 2022).

Grade 12 students must make critical decisions regarding their future, including choices about attending college, entering the workforce, or pursuing marriage (Ranti, 2021). During late adolescence, there is a notable increase in the prominence of career interests, dating, and identity exploration compared to early adolescence (Deni & Ifdil, 2016). Ranti's study (2021) indicates that the motivations for attending college include (1) the desire to expand

knowledge, fulfill personal aspirations, and make parents proud; (2) the decision to work to support the family's financial situation, initiate a personal business, or continue a family enterprise; and (3) the choice to marry, driven by readiness for commitment and an existing partnership. Notably, many women tend to marry after completing their education. The decision to marry after high school graduation may not be feasible if the individual's age does not comply with the Marriage Law. In Indonesia, the minimum age for marriage is stipulated in Law Number 16 of 2019, which amends Law Number 1 of 1974 concerning Marriage. Article 7 states, "Marriage is only permitted if the man and woman have reached the age of 19 (nineteen) years" (Suryani & Kudus, 2022).

Numerous studies have examined anemia, each with distinct variables and characteristics pertinent to the topic. This study differs from others by introducing a novel approach to addressing the effectiveness of an educational program aimed at preventing anemia in young women, specifically in enhancing their knowledge and self-awareness regarding the condition. This study aims to analyze the effectiveness of an anemia education program in enhancing knowledge and self-awareness, along with identifying factors that influence adolescent self-awareness in preventing anemia among 12th-grade female students at Kebomas 1 High School, Gresik.

METHOD

This study employs a quasi-experimental research design featuring a distinct sample pretest-posttest framework. Involves participants into groups, one group pretest-posttest is called before after design namely, experimental research is carried out on one group only. Before after design research is measured using a pretest conducted before education and a posttest conducted after treatment for each form or type of education. To get more accurate and unbiased results from this "Anemia Education Program", pretests and posttests will be carried out on each form or type of activity which consists of three forms of education, including lectures, video screenings and booklet distribution. Pretest-posttest activities are conducted to gather knowledge data from respondents, with the expectation of an increase in knowledge before and after educational intervention, An anemic essay test was conducted to gather data on the enhancement of self-awareness following a gain in knowledge. The essay test given is related to the level of self-awareness and the influencing factors. Assessment uses a Likert Scale. The trial will be carried out on 30 respondents. This trial was carried out to measure the internal consistency of each content using Cronbach's alpha. The value of Cronbach's alpha is 0.818.

Following the discovery of heightened self-awareness among high school female respondents in this study, a hemoglobin examination was conducted to substantiate the increase in knowledge and self-awareness regarding anemia. This study was performed at SMAN 1 Kebomas from July to September 2024. The research sample comprised all adolescents female in grade 12 at Kebomas 1 High School. The sample was identified using the Purposive Sampling Technique, which considers inclusion and exclusion criteria. The inclusion criteria in this study were (1) female students in class XII A, B and C at SMAN 1 Kebomas; (2) Willing to be a respondent and have signed the informed consent; (3) Attending education; (4) Aged ≥ 17 ; (5) Not suffering from congenital disease; (6) do not smoke. Meanwhile, the exclusion criteria in this study were (1) Female students suffering from infectious/chronic diseases and (2) Not willing to be respondents. Based on this, the sample in this study was determined to be 79 female students. The data obtained, processed, and analyzed using the Paired T-Test assesses the difference in knowledge between average scores before and after education. The Simple Linear Regression test aims to identify the key variables that enhance self-awareness among female students at SMAN Kebomas 1. This research has gone through

the Research Ethics Clearance (KEP) of University of Muhammadiyah Gresik with Number: 091/KET/II.3.UMG/KEP/A/2024.

RESULT

Respondents Characteristics

The characteristics of respondents at SMAN 1 Kebomas are detailed in Table 1, with an age range of 17 to 18 years.

Table 1.
Respondents Characteristics

Characteristics	f	%
Age		
16	16	20
17	47	60
18	16	20
Total	79	100

Table 1 indicates that 60% of the age characteristics of adolescents female are represented by 17-year-olds. Additionally, there are 16-year-olds and 18-year-olds, each comprising 20% of the total population.

Knowledge and Self Awareness Overview

The study results presented in Table 2 indicate that the level of knowledge among grade 12 adolescents female at SMAN 1 Kebomas before the intervention was inadequate, with a percentage of 35.4%. Following the intervention, knowledge increased to 97.5%, indicating a positive outcome. Before the intervention, the self-awareness level among grade 12 adolescents female at SMAN 1 Kebomas was categorized as low, specifically at 32.9%. Following the intervention, there was a 50.6% increase.

Table 2.
Knowledge and Self-Awareness Levels

Variable	Pre		Post	
	f	%	f	%
Knowledge				
Good	28	35,4	77	97,5
Adequate	23	29,1	2	0,03
Less	28	35,4	0	0
Self-awareness				
Good	24	30,4	40	50,6
Adequate	29	36,7	21	26,6
Less	26	32,9	18	22,8
Total	79	100	79	100

Anemia Prevention Knowledge and Self-Awareness

Table 3.
Knowledge and Self-Awareness Level Differences

Variable	Mean	Deviation Standard	Error Std.	Sig
Knowledge				
Pre	69,79	12,606	1,418	0.000
Post	85,82	10,078	1.134	
Self-awareness				
Pre	16,82	3,608	0,406	0.000
Post	21,38	4,198	0,472	

Anemia Prevention Knowledge

The results of the Paired T-Test concerning knowledge about anemia are displayed in Table 3, indicating a significant difference in average knowledge before and after the intervention, with a significance value of $0.000 < 0.05$. This suggests a notable difference in average values pre- and post-intervention. This aligns with the findings of Irwan (2023), who performed a distinct test at the Banuarang Job Training Institute, revealing a significant difference in the subjects' knowledge scores before and after education, with a p-value of 0.000 (Irwan, 2023).

Anemia Prevention Self-Awareness

The results of the Paired T-test concerning self-awareness related to anemia are displayed in Table 3. The findings indicate a significant difference in mean self-awareness before and after the intervention, with a significance value of $0.000, < 0.05$. This suggests a notable difference in the mean values pre- and post-intervention. This aligns with the findings of Abu-Baker et al. (2021) regarding young women in Jordan, which indicated varying test results with a p-value of 0.000.

Self-Awareness Support Factors

The Linear Regression analysis identified the primary factors influencing the enhancement of self-awareness among grade 12 adolescents female at SMA Negeri 1 Kebomas, which include family, school, peers, and social media, as presented in Table 4.

Table 4.
Self-Awareness Support Factors

Factors	B	Sig	Exp	95% C.I for EXP (B)	
				Lower	Upper
Family	1,69	0,03	5,41	1,18	24,86
School	0,14	0,85	1,15	0,26	5,091
Peer	2,27	0,01	9,69	1,74	53,95
Social Media	0,90	0,19	2,47	0,62	9,783
Constant	0,8	0,26	0,40		

According to Table 4, the variables that significantly impact the enhancement of self-awareness among young women are family support ($p = 0.030$) with a confidence interval for Exp B of 1.18-24.86, and peer support ($p = 0.010$) with a confidence interval of Exp B of 1.74-53.95. This indicates that the influence of family and friends is significant in enhancing the self-awareness of adolescents female concerning anemia. School factors and social media do not influence self-awareness.

DISCUSSION

Respondent Characteristics

The characteristics of respondents presented in Table 1 indicate that the majority of adolescents female respondents are 17 years old. This age group is associated with significant growth and changes in hormonal, cognitive, and socio-emotional dimensions. The age range of 16-21 years is classified as late adolescence, during which individuals typically pursue upper-level education (high school) (Dewi, N P et al, 2024). The adolescent demographic is particularly susceptible to nutritional issues that affect growth and development (Almatsier et al., 2011). Adolescents experience three forms of dietary issues: malnutrition, overnutrition, and micronutrient deficiencies (Nation Children's Fund, 2021). A prevalent nutritional issue among contemporary youth is anemia (iron deficiency).

Self-Awareness and Knowledge Overview

Table 2 indicates that the majority of respondents possess a limited level of knowledge and self-awareness. Research by Farhan et al. (2024) on young women at SMP Negeri 86 Jakarta revealed a significant increase in knowledge regarding anemia following the intervention, with 22.2% exhibiting low knowledge before the intervention and 75.9% demonstrating high knowledge afterward. Knowledge is the outcome of efforts aimed at refining an individual's cognitive abilities. An enhanced level of knowledge can foster mental autonomy and elevate an individual's quality of life (Farhan, et al., 2024). The knowledge level of class 12 adolescents female students at SMAN 1 Kebomas before the implementation of anemia education was categorized as poor (> 20%). The deficiency of knowledge among adolescents is attributable to limited exposure to acquired information. Initially, the consumption of brief media, such as pamphlets or public service announcements, together with the perception of social media solely as an entertainment platform, results in young women possessing limited understanding regarding the significance of anemia prevention. The misuse of intermediary media might be counterproductive. Restricted information results in constrained self-awareness.

The deficiency in self-awareness parallels the findings of Abu-Baker et al. (2021) regarding adolescents female in Jordan, where pre-intervention results indicated a negative self-awareness attitude towards anemia at 36.1%, which improved to a positive attitude of 60.6% post-intervention (Abu-Baker et al., 2021). This aligns with the research conducted by Farhan et al. (2024), which indicated that negative attitudes were at 50% before the intervention and positive attitudes increased to 57.4% following the intervention (Farhan et al., 2024). Self-awareness is the capacity to comprehend and acknowledge oneself thoroughly, encompassing strengths, flaws, values, objectives, and particular inclinations. An individual capable of selecting appropriate and effective measures to enhance quality of life can achieve this by augmenting self-awareness (STAIKU, 2023). Self-awareness is a type of attitude. Attitude is a mental response of an individual to a tangible stimulus, which may encompass interior feelings that have not yet manifested as overt behavior (Farhan, et al., 2024).

Self-awareness and Knowledge Levels.

Anemia Prevention Knowledge

The outcomes of the Paired T-test concerning knowledge of anemia are illustrated in Table 3, indicating a significant difference in average knowledge pre- and post-intervention, with a p-value of $0.000 < 0.05$, signifying a disparity in average values before and after the intervention. This aligns with Irwan's (2023) study, which conducted a distinct assessment at the Banuarang Job Training Institute, revealing a significant variation in subjects' knowledge scores before and after education, with a p-value of 0.000 (Irwan, 2023). Abu-Baker et al. (2021) assert that the rising incidence of anemia in adolescents female is attributable to a lack of knowledge, necessitating significant and effective intervention to avert anemia. One method involves educating all demographics, particularly adolescents female, through the provision of informative materials regarding the origin of anemia, its detrimental effects, and dietary practices to enhance iron absorption. Delivering nutritional education concerning anemia can significantly enhance understanding among young women (Abu-Baker et al. 2021).

Following the implementation of anemia education, there was an increase in knowledge, with mean values rising from 69.79 to 85.82, as shown in Table 4, demonstrating the efficacy of educational methods such as lectures, videos, and booklets. This aligns with studies by Dewi et al. (2022), which indicate that all instructional media can enhance adolescent nutritional awareness (Dewi et al., 2024). In the process of education, there exists a phase known as the

question and answer session. Before the educational intervention, female students in grade 12 at SMA Negeri 1 Kebomas were administered a pre-test concerning anemia. This is to provide a summary of the content that female students will encounter before their schooling. Subsequently, following the educational segment, a question-and-answer session and post-test were conducted, allowing the adolescents female to inquire about the material presented. An increase in inquiries correlates with improved educational outcomes (Neoritti, 2021).

Anemia Prevention Self-awareness

The outcomes of the Paired T-test concerning self-awareness related to anemia are displayed in Table 3, indicating a significant difference in average self-awareness pre- and post-intervention, with a p-value of $0.000 < 0.05$, signifying a disparity in mean values before and after the intervention. This aligns with the research conducted by Abu-Baker et al. (2021) on adolescents female in Jordan, which revealed varying test results with a p-value of 0.000. Self-awareness is crucial for enhancing quality of life to address and prevent anemia, particularly among adolescents female (Helmiyati, 2022). Self-awareness entails a profound understanding of oneself (STAIKU, 2023). The enhancement of self-awareness is seen by the rise in the average figure from 16.82 to 21.38 following the implementation of anemia education. A study by Farhan et al. (2024) indicates that the average self-awareness attitude of adolescents female post-education rose from 37.5 to 40.3 points. Providing instruction via lectures, videos, and pamphlets has demonstrated efficacy in altering teens' perspectives. Damayanti et al. (2021) assert that education using diverse media, particularly video might enhance self-awareness. The simultaneous engagement of many senses during education can impact decision-making in the human brain (Damayanti, et al., 2021).

The education provided on the effects of anemia has enhanced self-awareness among grade 12 adolescents female at SMA Negeri 1 Kebomas. Anemia can adversely influence physical growth issues, diminish endurance, and impair concentration and academic performance. Additionally, the heightened risk of anemia may elevate the likelihood of stunting in the fetus in the future (Sringrat, et al., 2019). Adolescents' self-awareness in preventing anemia encompasses their comprehension of anemia, its causes, management strategies, and preventive measures, as well as their capacity to make informed decisions regarding anemia prevention behaviors. Individuals with high self-awareness can comprehend their emotions, identify behaviors that may benefit themselves and others, and make judicious decisions. A comprehensive understanding of anemia's prevalence might enhance self-awareness among adolescents female, enabling them to adjust to occurring changes. Self-awareness in an individual can be cultivated through assistance from diverse entities, including family, educational institutions, peers, and social media.

Self-Awareness Supporting Factors

Table 4 indicates that the respondents' level of self-awareness is affected by familial and peer influences. The significant value of family support is $0.030 < 0.05$, indicating a robust correlation between family support and self-awareness. This aligns with the study conducted by Rahayuningtyas et al. (2021) on adolescents female within the jurisdiction of the Gilingan Surakarta Health Center, indicating a correlation between familial support and adherence to anemia prevention (consumption of blood-boosting tablets), with a significance value of 0.000 (Rahayuningtyas et al., 2021). The family has a crucial role in educating adolescents about anemia prevention. Families, being those nearest to teenagers, undoubtedly possess the capacity to shape their perspective on health issues. The involvement of family in assisting adolescents is intrinsically linked to the role of parents. Parents have a crucial role in maintaining diet by providing knowledge, and guidance, and safeguarding children from negative influences (Andriastuti, et al., 2020).

In addition to familial support affecting self-awareness, peer support significantly impacts the lives of adolescents. According to Table 4, the significance value for peer support in connection to self-awareness is $0.010 < 0.05$, indicating a robust correlation between the two variables. This aligns with the research conducted by Adila et al. (2022) on adolescents female at SMP PGRI 1 Cibinong, indicating a correlation between peer support and anemia prevention Hurlock (1980), as cited in Adila et al. (2022), asserts that peers significantly influence the well-being of adolescents. Shared feelings of a common tragedy enhance the inner connection. adolescents female frequently seek the opinions of their peers over those of their families when making decisions. The sensation of receiving care from friends leads adolescents female to regard the significance of peers as paramount (Adila, et al., 2022). Peer support, through the provision of information, including advice and suggestions, can foster self-awareness and enable informed decision-making to prevent anemia.

CONCLUSION

The findings indicate that educational effectiveness might enhance the knowledge and self-awareness of young women by fostering support from diverse sources, including family and peers, to mitigate anemia.

REFERENCES

- Abu-Baker, N. N., Edayat, A. M., & Khamaiseh, A. M. (2021). The Impact of Nutrition Education on Knowledge, Attitude, and Practice Regarding Iron Deficiency Anemia Among Female Adolescent Students in Jordan. *Heliyon*, 7.
- Adila, A. M., Ramadhan, N., Mufida, Z., Surury, I., & Handari, S. R. (2022). The Relationship Between Knowledge and Peer Support with Anemia Prevention During Menstruation in Adolescents. *Jurnal Kesehatan Reproduksi*, 13(1).
- Agustini & Wahyuningsih. (2023). Faktor Dukungan Yang Berpengaruh terhadap kesadaran Diri (Self Awareness) Remaja Cegah Anemia Di Kota Denpasar. *Malahayati Nursing Journal* Vol. 5 (12), 4258-4269.
- Agustini NKT & Wahyuningsih. (2024). peningkatan Self Awareness Remaja Cegah Anemia Melalui Program Structured Education Peer Counselor di Kota Denpasar. *Jurnal Ilmiah Keperawatann* Vol. 19 (1), 26 - 33.
- Almatsier, et al. (2011). *Gizi Seimbang Dalam Daur Kehidupan*. Jakarta: Gramedia Pustaka Utama.
- Ariestiningsih & Syarifah. (2024). Factors That Cause Unhealthy Eating Behavior In Genetarion (Gen) Z Of Indonesia a Case Study. *Gormosa Journal Of Applied Sciences* Vol. 03 (01), 413 - 426.
- Ariestiningsih, et al. (2022). Analyze Role Of The Ascription Of Responsibility On The Causative Factors And Efforts To Prevent Stunting In Toddlers In Balongpanggung District Gresik. *Journal of Humanities and Social Studies (JHSS)* Vol.06 (01), 1-6.
- Astuti & Kulsum. (2020). Pola Menstruasi dengan Terjadinya Anemia Pada Remaja. *Jurnal Ilmu keperawatan Dan Kebidanan* Vol. 11 (02), 314 - 327.
- Briawan. (2014). *Anemia : masalah Gizi Pada Remaja Wanita*. Jakarta: EGC.

- Chandrakumari, et al. (2019). Prevalence Of Anemia Among Adolescent Girls In A Aural Area Tamil Nadu India. *Journal Of Family Medicine And Primary care* Vol 8 (04), 1414 - 1417.
- Damayanti, S., Diah Herawati, D. M., & Syahri, A. (2021). The Effect of Education Using Video Blog (Vlog) on The Female Adolescents Knowledge, Attitude, and Behaviors on The Prevention of Iron Deficiency Anemia (PPABG) in Bandung. *Journal of Biology Education, Science, & Technology*, 4(1).
- Deni & Ifdil. (2016). Konsep Kepercayaan Diri Remaja Putri. *Jurnal Educatio* Vol. 2 (2), 43 - 52.
- Dewi, F. N. (2021). Konsep Diri pada Masa Remaja Akhir Dalam Kematangan Karis Siswa. *Journal of Guidance and Counseling* Vol 5 (1), 46 - 62.
- Dewi, N P et al. (2024). Literatur Review : Efektivitas Media Edukasi Terhadap Pencegahann Anemia Pada Remaja Putri. *Jurnal Ilmu kebidanan Dan kesehatan* Vol. 15 (2), 136 - 141.
- DinKes Jawa Timur. (2020). Profil Kesehatan Jawa Timur. Surabaya: Dinas Kesehatan Provinsi Jawa Timur.
- Dipo, et al. (2020). Pedoman Pemberian Tablet Tambah darah (TABLET TAMBAH DARAH) Bagi Ramaja Putri Pada Masa Pandemi Covid - 19 Bagi Tenaga Kesehatan. Jakarta: Kementerian Kesehatan.
- Dwi Syarifah et al. (2024). The Effectiveness Of RS Centing Intervention To Improve Knowledge And Behavior Among Adolescents Ti Prevent Stunting. *Pedio Maternal Nursing Journal (PMNJ)* Vol. 10 (01), 1 - 6.
- Fadilah & Prabowo. (2023). Literatur Review : Strategi Layanan Konseling Kelompok Untuk Meningkatkan Self Awareness Pada Siswa. Penguatan Karakter Menuju Konselor Multibidaya Dijiwai Nilai-Nilai Religius (hal. 642 - 656). Yogyakarta: Universitas Ahmad Dahlan.
- Fadillah. (2021). Peningkatan Self Awareness Anak Usia 5-6 Tahunn Melalui Pembelajaran Lagu Daerah Riau. *Pernik Jurnal Pendidikan Anak Usia Dini* Vol. 4 (01).
- Farhan, K., Maulida, N. R., & Lestari, W. A. (2024). Pengaruh Edukasi Anemia Melalui Media Video Terhadap Pengetahuan, Sikap, serta Keberagaman Konsumsi Makanan Remaja Putri di SMP Negeri 86 Jakarta. *Journal of Nutrition College*, 13(2).
- Gonete, et al. (2018). Prevalence And Associate Factors Of Anemia Among Adolescent Girls Attending High School In Dembia District, Northwest Ethiopia. *BMC Archive Public Health* 76, 79 (2018).
- Hasdianah & Suprpto. (2016). Patologi & Patofisiologi Penyakit. Yogyakarta: Nuamedika.
- Hastuti, D. (2024, Mei Selasa). Ketua TP-PKK Kabupaten Gresik Ajak Bebaskan Remaja Dari Anemia. Gresik: PKK Network.
- Helmyati. (2022). Pencegahan Anemia Pada remaja. Yogyakarta: Pusat Kesehatan dan Gizi Manusia FK-KMK UGM.

- Ikhsan, A. (2019). Kasus Anemia Pada Remaja Putri Di Gresik Tinggi. Ada Apa? Gresik: Sindow News.
- Irwan, Z. (2023). Peningkatan Pengetahuan Gizi dan Anemia Pada Remaja Melalui Pelatihan Pembuatan Media Promosi. *Jurnal Pengabdian dan Pengembangan Masyarakat Indonesia*, 2(1).
- Kemkes. (2018). Pedoman Pencegahan dan Penganggulangan Anemia Pada Remaja Putri dan Wanita Usia Subur. Jakarta: Kementerian Kesehatan Republik Indonesia.
- Kemkes. (2018). Profil Kesehatan Indonesia. Jakarta: Kementerian Kesehatan Republik Indonesia.
- Kemkes. (2018). Riset Kesehatan Dasar. Jakarta: Badan Penelitian Pengembangan Kementerian Kesehatan RI.
- Kemkes. (2021, July). Remaja Putri Sehat Bebas Anemia di Masa Pandemi Covid- 19. Dipetik April Tuesday, 2024, dari Kemkes: <https://ayosehat.kemkes.go.id/remaja-putri-sehat-bebas-anemia-di-masa-pandemi-covid-19>
- Kurniasari, Y. (2019). Nutritionist Care Process. Yogyakarta, DIY, Indonesia. Diambil kembali dari Diagnosa Gizi.
- Lakshmanrao. (2013). Anemia Among Adolescent Girls In Tribal Area Of Visakhapatnam District In Andhra Pradesh Indian. *Lournal Public Health Res Dev* Vol. 4 (02).
- Maimuna & Oktariani. (2022). Komunikasi Interpersonal Orang Tua Dengan Remaja Awal Untuk Meningkatkan Rasa percaya Diri. *UNES Journal of Social and Economics Research* Vol. 7 (2), 44 - 53.
- Margarini, E. (2021). Remaja Putri Sehat Bebas Anemia Di Masa Pandemi Covid - 19. Jakarta: Kemkes.
- Mosino, et al . (2020). Association Between School Performance And Anemia In Adolescent Girls In Mexico. *Environ Res Public Heath* Vol. 17 (05), 1466.
- Nadiyah et al. (2022). Remaja Putri Pedesaan Di Indonesia Berisiko Anemia Dua Kali Lebih Tinggi. *Gizi Indonesia* Vol. 45 (01), 35 -46.
- Neoritti, R. A. (2021). The Importance of Asking Question and Doing Things for a Reason. *Brazilian Journal of Cardiovascular Surgery*, 36(1).
- Novelia, et al. (2022). Analysis Of Factors Associated With Anemia Among Adolescent Girls. *Nursing And Health Sciences Journal* Vol. 2 (03), 266 - 273.
- Nursalam. (2017). Metodologi Penelitian Ilmu Keperawatan (4th ed). Jakarta: Salemba Medika.
- Puspitasari. (2020). Edukasi Pencegahan Anemia Pada Remaja Putri Menggunakan Media Cups Games Di Kecamatan Kajuara Kabupaten Bone. Makasar: Universitas Hasanudin.

- Rachmat, et al. (2023). Edukasi Pencegahan Dan Penanganan Anemia Pada Remaja Putri Di Pulau Barrang Lompo. *Lambung Inovasi* Vol. 8 (02), 174 - 183.
- Rah, J. Hy. (2021). The Triple Burden of Malnutrition Among Adolescents in Indonesia. *Food and Nutrition Bulletin* Vol. 42 (01), S4-S8.
- Ranti, M. A. (2021). Pengambilan Keputusan Setelah Tamat Sekolah Oleh Siswa Siswa/Siswi Kelas XII SMAN I Tempuling Tahun Pelajaran 2020/2021. *JOM Fisip* Vol. 8 (11), 1 - 12.
- Seniati, et al . (2015). *Psikologi Eksperimen*. Jakarta: PT Indeks.
- Srinigrat, I. A., Yuliatni, P. C., & Ani, L. S. (2019). Prevelensi Anemia Pada remaja Putri. *E-Jurnal Medika Udayana*, 8(2).
- STAIKU. (2023, May Monday). Meningkatkan Kualitas Hidup Melalui Self Awareness. Dipetik May Thursday, 2024, dari <https://staiku.ac.id/meningkatkan-kualitas-hidup-melalui-self-awareness/>
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dann R&D*. Bandung: Alfabeta.
- Suryani & Kudus. (2022). Fenomna Menikah Muda Dikalangan Remaja Perempuan di Kelurahan Pipitan. *Jurnal Pendidikan Sosiologi Dan Humaniora* Vol. 13 (2), 260 - 269.
- Uno et al,. (2011). *Menjadi Peneliti PTK Yang profesional*. Jakarta: Bumi Aksara.
- Wouthuyzen & Assen. (2015). Exercise-Induced Anaemia: A Forgotten Cause Of Iron Deficiency Anemia In Young Adults. *British The Journal Of Royal College Of General Practitioners* Vol. 65 (634), 268 - 269.
- Yolanda, et al. (2021). Self Confidence And Self Awareness Toward Interpersonal Communication And Career. *Jurnnal Penelitian dan Pengukuran Psikologi* Vol. 10 (02), 100 - 106.
- Yuliasari, H. (2020). Pelatihan Konselor Sebaya Untuk Meningkatkan Self Awareness Terhadap Perilaku Berisiko Remaja. *Jurnal Psikologi Insight*.