

LOW KNOWLEDGE AND ATTITUDE OF ADOLESCENT WOMEN REGARDING NUTRITION RESULTS IN THE INCIDENT OF ANEMIA IN ADOLESCENT WOMEN

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ABSTRAK RENDAHNYA PENGETAHUAN DAN SIKAP REMAJA PUTRI TENTANG GIZI MENGAKIBATKAN KEJADIAN ANEMIA PADA REMAJA PUTRI

Latar Belakang : remaja putri merupakan salah satu kelompok yang rentan menderita anemia dikarenakan remaja putri mengalami menstruasi setiap bulan, selain itu remaja putri juga sering menjalani diet demi mendapatkan bentuk tubuh yang langsing ideal, sayangnya diet yang mereka lakukan lebih mengarah kepada diet tidak sehat karena kurang memperhatikan kecukupan gizi dari makanan yang mereka konsumsi. Tujuan: penelitian ini untuk mengetahui hubungan pengetahuan dan sikap tentang gizi dengan kejadian anemia pada remaja putri kelas XI IPA SMAN 6 Tanjung Jabung Barat tahun 2023. Metode: desain penelitian ini adalah penelitian survei analitik Dengan desain cross sectional. Penelitian dilakukan di SMAN 6 Tanjung Jabung Barat tahun 2023. Waktu penelitian bulan April s/d September tahun 2023. Populasi adalah seluruh remaja putri di SMAN 6 Tanjung Jabung Barat tahun 2023 berjumlah 48 orang. Sampel diambil secara total sampling berjumlah 48 orang. Analisa data dengan univariat dan bivariat dengan uji chi square. Hasil : 35,4% responden berpengetahuan cukup tentang gizi remaja putri, 60,4% responden dengan sikap positif tentang gizi remaja putri dan 68,8% remaja putri dengan tidak anemia. Hasil bivariat ada hubungan pengetahuan (p value 0,000) dan sikap (p value 0,003) dengan kejadian anemia pada remaja putri kelas XI IPA SMA N 6 Tanjung Jabung Barat Tahun 2023. Kesimpulan: hasil uji chi-square menunjukkan ada hubungan pengetahuan dan sikap dengan kejadian anemia remaja putri. Saran : bagi tempat penelitian Diharapkan penelitian ini dapat digunakan sebagai masukan agar melakukan penyuluhan ditempat bekerja kepada remaja putri tentang faktor yang mempengaruhi anemia pada remaja putri.

Kata Kunci: Anemia Remaja Putri, pengetahuan, sikap

ABSTRACT

Background: Adolescent girls are one of the groups that are vulnerable to suffering from anemia because adolescent girls experience menstruation every month, apart from that, adolescent girls also often go on diets to get an ideal slim body shape, unfortunately the diet they follow is more likely to lead to an unhealthy diet because they lack pay attention to the nutritional adequacy of the food they consume. Objective: This research is to determine the relationship between knowledge and attitudes about nutrition and the incidence of anemia in female teenagers in class XI IPA at SMAN 6 Tanjung Jabung Barat in 2023. Method: The design of this research is analytical survey research with a cross sectional design. The research was conducted at SMAN 6 Tanjung Jabung Barat in 2023. The research period was April to September 2023. The population was all young women at SMAN 6 Tanjung Jabung Barat in 2023 totaling 48 people. Samples were taken as a total sampling of 48 people. Data analysis was done using univariate and bivariate using chi square test. Results: 35.4% of respondents had sufficient knowledge about adolescent girls' nutrition, 60.4% of respondents had a positive attitude about adolescent girls' nutrition and 68.8% of adolescent girls were not anemic. Bivariate results showed a relationship between knowledge (p value 0.000) and attitude (p value 0.003) with the incidence of anemia in teenage girls in class Suggestions: for research sites. Conclusion: It is hoped that this research can be used as input for conducting outreach in workplaces to young women about the factors that influence anemia in young women.

Keywords: Anemia in Adolescent Girls, knowledge, attitudes

INTRODUCTION

Anemia is a problem that many developing countries and even developed countries still experience. The incidence of anemia is still very high both globally and nationally, including in Indonesia. Teenage girls are one of the groups that are vulnerable to suffering from anemia because teenage girls experience menstruation every month. Apart from that, teenage girls also often go on diets to get an ideal slim body shape. Unfortunately, the diet they follow is more towards an unhealthy diet because they don't pay attention to adequate nutrition. from the food they consume. Adolescent girls who suffer from anemia are at risk of developing anemia during pregnancy. This has a negative impact on the growth and development of the fetus in the womb and has the potential to cause complications in pregnancy and childbirth (Istiqumilaily et al. 2023).

Anemia is a condition where blood hemoglobin (HB) or the number of red blood cells in the body is insufficient to meet the body's physiological needs. Anemia is very diverse and is often caused by many factors. Symptoms experienced due to low HB levels include disruption of tissue oxygen delivery so that sufferers will experience weakness, lethargy, difficulty concentrating or poor work productivity. Severe iron deficiency anemia increases the risk of premature birth, low birth weight, maternal and child death, and can predispose to infection and heart failure. (Apriningsih 2023).

Nutrition and health interventions must be carried out at every stage of the life cycle to achieve optimal health, carried out continuously during the periods of conception, pregnancy, neonates, infants, toddlers, children, school age and adolescents (Utama 2021). Intervention for adolescent girls and women of childbearing age is very important because it will determine the quality of the next generation's human resources. Young women who are healthy and not anemic will grow and develop into healthy mothers-to-be and give birth to healthy babies (Kemenkes 2018).

Nutritional anemia caused by Iron deficiency is a nutritional disorder the most frequently encountered in the country growing and becoming epidemic. Anemia Iron deficiency is anemia that occurs due to empty body iron reserves thus providing iron for erythropoiesis is reduced resulting in reduced hemoglobin formation (Kumalasari et al. 2019).

Adolescent groups generally have better nutritional conditions than toddler groups and school children, because this age group is easily reached

by various nutritional improvement efforts carried out by the government and private groups. Unfortunately, there are many problems that often arise in adolescent nutrition, such as underweight, obesity and anemia (Apriyanti 2019). These problems arise due to several causes, such as young women who menstruate every month so they have to lose a lot of blood, teenagers often follow unhealthy diets without paying attention. nutritional adequacy of the food they consume so that the nutritional intake that comes in is less than actual needs, teenagers are in their growth period so their nutritional needs increase (Utami 2021).

Anemia is a serious global public health problem, especially affecting children, teenagers, women who are menstruating, women who are pregnant and also after giving birth. According to the World Health Organization (WHO), teenagers and women aged 15 – 49 years throughout the world suffer from anemia (Who 2021).

The incidence of anemia in Indonesia is still quite high. Based on 2018 Riskesdas data, the prevalence of anemia in teenagers is 32%, meaning 3-4 out of 10 teenagers suffer from anemia. One of the reasons for this is that nutritional intake habits are not optimal. The Ministry of Health has carried out specific interventions by administering Blood Supplement Tablets (TTD) to adolescent girls and pregnant women. Apart from that, the Ministry of Health also tackles anemia through education on the promotion of balanced nutrition, iron fortification of food ingredients and the implementation of clean and healthy living (Kemenkes RI 2021).

There are many factors that cause anemia in teenagers, there are direct causes such as iron deficiency and infectious diseases, there are indirect causes such as low parental attention to teenagers, high teenage activity, and food distribution patterns in the family, then there are other basic causes. such as economic problems, low parental income, low social status, education, knowledge, attitudes, and difficult geographical location (Rahayu A, Yulidasari F, Putri AO 2019).

The impact of anemia on teenage girls includes reducing the body's resistance so that sufferers are more susceptible to infections, reducing fitness and ability to think due to reduced oxygen intake into brain cells so that it can reduce learning achievement and productivity at work, teenagers become more easily tired and fatigued. , lethargic and weak so that concentration in studying is reduced (Kemenkes 2018).

Anemia in adolescent girls in Jambi Province in 2021 was 20.9%. Anemia survey of pregnant women according to age, namely pregnant women

in their teens (15 – 24 years) experienced anemia of 84.6%. Data obtained from the West Tanjung Jabung District Health Service, the number of teenagers suffering from anemia was 28.27% (Dinkes 2021).

Anemia that occurs in women according to Pateretal 2015 causes problems serious health problems occur in the country develop. Research according to Rati, S.A., & Jawadagi, S. also stated that The prevalence of anemia is more common in girls over 14 years old. Anemia often occurs in young women and girls The prevalence of anemia in the world ranges from 40-88% (Himawan et al. 2020). Cases of anemia result in disruption immune mechanisms and improve causes death in the world. WHO program in reduce the incidence of anemia in adolescents, namely by giving Iron tablets through coordination with health institutions around the world. Prevalence of anemia in women in Indonesia, namely 21.7% with anemia sufferers aged 5-14 years amount to 26.4% and 18.4% of sufferers were aged 15-24 year. The prevalence of anemia is considered to be health problems if >15% (Us and Safitri 2023).

Iron deficiency anemia can have various impacts on teenagers including lowering the body's resistance so that it is easy to get disease, it decreases learning activities and achievements (Lutfitasari 2021). Besides that teenage girls suffering from anemia his fitness will also decrease, so hinder sports performance and its productivity. Apart from that, adolescence It's a period of great growth quickly, iron deficiency at this time will resulting in not achieving height optimal (Wulandari 2020).

Sitanggang's research (2019), regarding factors that influence anemia in adolescent girls at Prima Tembung High School in 2019. The number of research subjects was 31 respondents, the variables tested included 5 variables, namely: the influence of knowledge. The results of the chi-square test showed that $pValue = 0.026 < 0.05$, the influence of attitude shows a value of $pValue=0.041 < 0.05$, the influence of food intake patterns $pValue=0.023 < 0.05$, the influence of family income which shows a value of $pValue=0.023 < 0.05$ and finally the influence of iron supplement intake with Anemia in adolescent girls at Prima Tembung High School in 2019 showed a $pValue=0.041 < 0.05$. Many young women experience a lack of nutrients in their daily consumption. Iron deficiency is considered the most common cause of anemia globally, but several other causes: nutritional deficiencies (including folic acid, vitamin B12 and vitamin C), acute illnesses, chronic inflammation,

parasites, infections and bleeding are also causes of anemia (Sitanggang 2019).

Based on data obtained from the Sukarejo Community Health Center, Betara District in 2022, out of a total of 103 young women who had their blood hemoglobin checked, 29 people (28.1%) of them had anemia (Puskesmas Sukarejo 2022)

State High School 6 Tanjung Jabung Barat is one of the State High Schools in Betara District which is the work area of the Sukarejo Health Center where the students are in the teenage age category. The total number of female students is 470 people, consisting of 220 students and 251 female students. Class XI Science is one of the classes that has the most female students, namely 48 people (Staf tata usaha 2022).

Based on an initial survey conducted at SMAN 6 Tanjung Jabung Barat in May 2023, measurements of blood hemoglobin levels carried out on young women in class which means that 7 female students suffer from anemia. In the initial survey the author also conducted interviews, from the results of the interviews it was found that the majority of young women did not know what balanced nutrition was, what was meant by anemia, the causes of anemia, risk factors for anemia and how to deal with it if they suffered from anemia. The attitude of young women regarding anemia prevention behavior is still not good, such as preferring to choose instant foods and not paying attention to nutritional intake in them, dieting incorrectly, not consuming enough vegetables and fruit because they don't like them and not knowing the benefits in them. the vegetables and fruit.

Based on the background above, the author is interested in conducting research with the title "The Relationship between Knowledge and Attitudes About Nutrition and the Incidence of Anemia in Adolescent Girls in Class XI Science at SMAN 6 Tanjung Jabung Barat in 2023."

The aim of this research is to determine the relationship between knowledge and attitudes about nutrition and the incidence of anemia in female teenagers in class XI IPA at SMAN 6 Tanjung Jabung Barat in 2023.

RESEARCH METODS

The type of research used is an analytical survey, with a cross sectional approach to determine the relationship between independent variables (knowledge, attitudes) and the dependent variable (incidence of anemia). Data sources are taken from primary and secondary data. This research was conducted in 2023 with a sample of teenage girls in class XI Science at SMAN 6

Tanjung Jabung Barat, using a sampling technique in this research using the total sampling method. The population in this study was all young women at SMAN 6 Tanjung Jabung Barat in 2023 totaling 48 people and the sample in this study used a total sampling of 48 young women at SMAN 6 Tanjung Jabung Barat. Data were collected in this study by distributing questionnaires which were directly distributed to the young women of SMAN 6 Tanjung Jabung Barat after the young women filled out the questionnaire without being allowed to ask other respondents. Data analysis using the SPSS program univariate analysis and bivariate analysis was used to determine the relationship (correlation) between the independent variable and the dependent variable using statistics, namely the chi square test.

RESEARCH RESULTS

Table 1
Frequency Distribution of Respondents Based on Age

Respondent Characteristics	Total (n)	Persentase (%)
Early Teens (10-14 year)	0	0,0
Middle Teens (15-16 year)	4	8,3
Late Teens (17-20 year)	44	91,7

Characteristics of respondents: Based on table 1. Below, it is known that of the 48

respondents, the majority of 44 people (91.7%) were in the late teenage age range (17-20 years).

Table 2
Frequency Distribution of Respondents Based on Knowledge, Attitudes and Anemia Status of Young Women

Variabel	Total (n)	Persentase (%)
Knowledge		
Lees	15	31,2
Enough	17	35,4
Good	16	33,3
Attitude		
Negative	19	39,6
Positive	29	60,4
Anemic Status		
Anemic	15	31,2
No Anemia	33	68,8

Based on table 2. above, it was found that of the 48 respondents, the majority of 17 people (35.4%) had sufficient knowledge, 16 people (33.3%) respondents had good knowledge and 15 people (31.2%) respondents had poor knowledge about nutrition of adolescent girls, the majority of 29 people (60.4%) respondents with positive attitudes and 19 people (39.6%) respondents with negative attitudes about nutrition of adolescent girls and the majority of 33 people (68.8%) of adolescent girls with no anemia and 15 (31.2%) young women with anemia.

Table 3
Cross tabulation between knowledge and the incidence of anemia in young women

Knowledge	Anemia In Adolescent Girls				Total		P
	Anemic		No Anemic		n	%	
	n	%	n	%			
Lees	3	6.23	12	25.0	15	31.3	0,002
Enough	15	31.3	2	4.1	17	35.4	
Good	15	31.3	1	2.1	16	33.3	

Based on table 3. above, of the 48 respondents, it can be seen that the cross tabulation between knowledge and anemia in young women shows that the majority of respondents with poor knowledge experienced anemia, namely 12 people (25.0%), higher than those who were not anemic, which was 3 people (6.23). %, most of the respondents who had sufficient knowledge were not anemic, namely 15 people (31.3%) higher than those who were anemic, namely 2 people (4.1%)

respondents, while the majority of respondents with good knowledge were not anemic, namely 15 people (31.3%) higher than those with anemia which was only 1 person (2.1%).

The results of further statistical tests were obtained, respectively, the p value was knowledge (0.002<0.05), so it can be concluded that there is a relationship between knowledge about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023

Table 4
Cross tabulation between attitudes and the incidence of anemia in young women

Attitudes	Anemia In Adolescent Girls				Total		p value
	No Anemic		Anemic		n	%	
	n	%	n	%			
Negative	8	16.6	11	23.0	19	39.6	0,003
Positive	25	53.0	4	8.4	29	60.4	

Of the 48 respondents, it can be seen that the cross tabulation between attitudes and anemia among young women shows that the majority of respondents with negative attitudes experienced anemia, namely 11 people (23.0%) higher than those who were not anemic, 8 people (16.6%) and respondents with positive attitudes. The majority were not anemic, namely 25 people (53.0%) higher than those who had anemia as many as 4 people (8.4%).

The results of further statistical tests were obtained, respectively, the p value was attitude ($0.003 < 0.05$) so it can be concluded that there is a relationship between attitudes about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023.

DISCUSSIONS

The Relationship between Knowledge About Nutrition and the Incidence of Anemia in Adolescent Girls

The results of the analysis showed that there was a relationship between knowledge about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023, with a p-value of 0.000.

In line with research conducted by Rahayu et al. (2021) States that there is a relationship between the level of knowledge and the incidence of anemia in adolescent girls. Young women who have good knowledge about anemia will tend to consume enough food to meet their nutritional needs to avoid the problem of anemia. Adolescent girls are also a population that has a higher risk of developing anemia than boys. This happens because young women experience menstruation and have the desire to stay slim, so dieting reduces eating which has an impact on meeting nutritional deficiencies (Irene 2019).

Research conducted by Ikbal Firdausi (2022) on factors that influence the incidence of anemia in adolescent girls in secondary schools in Panyipatan sub-district, Tanah Laut Regency. The results of the study show that the factors that influence the incidence of anemia in young women are nutritional status with results obtained at $p=0.041$,

consumption of blood supplement tablets with $p=0.034$, physical activity with $p=0.027$, knowledge with $p= 0.012$ and distribution of blood supplement tablets. blood with 0.040, while factors that did not influence the incidence of anemia in young women were eating habits with $p=0.570$, infected status with $p=0.398$, menstrual pattern status with $p=0.597$ and parents' income $p=0.668$ (Tahji, firdausi I 2022).

This research is not in line with Chyntaka & Nurmala, (2020) that there is no relationship between knowledge and the incidence of anemia, because the majority have very good knowledge. Knowledge is gained when we go to school, but knowledge is also gained when we encounter problems or life experiences. Knowledge is the result of what has been known or studied, knowledge usually occurs after carrying out a sense such as seeing, hearing, feeling, touching and smelling (Chyntaka and Nurmala 2020).

Anemia can occur due to deficiency iron. Bone marrow needs iron to produce blood hemoglobin. Sufficient blood loss such as during menstruation, accidents, and blood donation Too much can remove iron from inside the body. Iron deficiency anemia is anemia that arises due to a decrease in the number total iron in the body so that reserves iron for erythropoiesis is reduced(Nurbadriyah 2019).

Knowledge is everything that humans are aware of about something, its characteristics, situation, and expectations. Everyone in the world has the right to knowledge. People gain knowledge through experimentation, experience, intuition, revelation, or logic. Knowledge is a process that occurs after humans perceive a certain object. The prevalence of anemia is greatly influenced by public knowledge about the condition. The incidence of anemia will increase as teenagers' knowledge about anemia decreases (Masturoh and Nauri 2018).

Knowledge is the result of "knowing" and this occurs after people sense a particular object. Sensing of objects occurs through the five human senses, namely sight, hearing, smell, taste and touch. The time from sensing to producing knowledge is greatly influenced by the intensity of perceptual attention to the object. Most human

knowledge is obtained through the eyes and ears (Atikah et al. 2021).

Lawrence Green states that health behavior is influenced by three factors, namely predisposing factors, supporting factors and driving factors. Knowledge is a predisposing factor, which means it is an internal factor within the individual that makes it easier for the individual to behave better. Good knowledge will help young men to prevent anemia. The higher the knowledge about anemia prevention, the more young women will know how to react to efforts to prevent anemia (Masturoh and Nauri 2018).

One of the knowledge that young women must have is knowledge about balanced nutrition and also about anemia. Anemia is a medical condition in which the number of red blood cells or hemoglobin is less than normal. A teenager or non-pregnant woman is said to be anemic if the hemoglobin level is less than 12.0 grams/100 ml (Atikah et al. 2021).

The researcher's assumption is that if young women have good knowledge, then young women will choose to eat well to prevent anemia. This is in accordance with several studies which state that there is a relationship between knowledge and the incidence of anemia among young women. However, if the level of knowledge is good but is not accompanied by changes in behavior in daily life, it does not rule out the possibility that the young woman will experience anemia, this happens if the young woman does not regularly take iron tablets.

The Relationship between Attitudes About Nutrition and the Incidence of Anemia in Adolescent Girls

The results of the analysis showed that there was a relationship between attitudes about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023, with a p-value of 0.003. The results of the research are in line with research by Rantika (2019) which states that there is a relationship between attitudes and anemia prevention behavior, p-value = 0.034, because attitudes have entered the stage of respect and responsibility which has an impact on anemia prevention behavior being good (Rantika 2019).

The results of this study are also the same as those of Simanungkalit and Simarmata (2019) regarding the knowledge and consumption behavior of adolescent girls which are related to anemia status, which shows that the factors related to anemia are nutritional status with p=0.034 and

consumption patterns of Fe inhibitors p=0.009 (Simanungkalit and Simarmata 2019).

Anemia often occurs among people who have a socio-economic status low. Research in Indonesia conducted by Survival for Women and Children (SWACH) Foundation found that socio-economic status also matters factors that influence the occurrence of events anemia in adolescents. Determinants of anemia Other iron deficiencies include income low levels and resulting poverty at low food intake and a diet low in micronutrients. This situation is also influenced by a lack of understanding of the pattern eating variety and its importance food sources of micronutrients can promote or inhibit absorption iron by the body (Taufiq, Ekawidyan, and Sari 2020).

Problems with nutritional status among teenagers in Indonesia include a lack of macronutrients (carbohydrates, protein, fat) and a lack of micronutrients (vitamins, minerals). Lack of macro and micro nutrients causes the body to become thin, lose weight, anemia and get sick easily. Nutritional status is a macro description of our body's nutrients, including iron. Where if the nutritional status is not normal, it is feared that the iron status in the body will also not be good. So it can be said that nutritional status is a risk factor for anemia (Sari et al. 2022).

Attitude is a view or opinion or feeling towards a particular object or person or event. Furthermore, a person's attitude response is usually shown in the degree of like or dislike, or it can also involve agreeing or disagreeing (Swarjana 2022).

To translate an attitude into action, supporting factors or enabling conditions are needed, such as facilities or infrastructure. After someone knows the stimulus or health object, then makes an assessment or opinion about what is known, the next process is expected to be that he will carry out or practice what he knows or considers good. Factors that can influence attitudes include the attitudes of people inside the house, how they relate to people outside the house, comfortable environmental conditions and experiences (Masturoh and Nauri 2018).

According to Notoatmojo, defining the meaning of attitude very simply is that attitude is a syndrome or collection of symptoms in response to object stimuli. So this attitude involves thoughts, feelings, attention and other psychological symptoms. Attitude is a reaction or response that is still closed from a person to a stimulus or object. Attitude is not yet an action or activity, but is still a predisposition to the action of a behavior. The level

of an attitude is accepting, responding, appreciating, being responsible (Masturoh and Nauri 2018).

Researcher Sari stated that positive and negative attitudes, a positive attitude itself is an attitude that reflects a sense of joy, empathy and mutual support for each other to become better in the future. A negative attitude is an attitude that feels dissatisfied with our success in achieving our dreams, always inviting us to do wrong things (Sari 2017).

The researcher's assumption is that young women who have a positive attitude will change the behavior of young women to be good for preventing anemia, in accordance with the research conducted that attitude influences the incidence of anemia among young women. It is not only enough for young women to have a good level of knowledge about anemia, but this must also be reflected in their attitudes. Young women with a positive attitude do not rule out the possibility of experiencing anemia, this is because they have low knowledge and lack of support from people around them.

CONCLUSION

There is a relationship between knowledge about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023 with p value=0.000 ($P<0.05$). There is a relationship between attitudes about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023 with p value=0.003 ($P<0.05$).

SUGGESTION

It is hoped that the results of this research can increase knowledge and experience regarding the relationship between knowledge and attitudes about nutrition with the incidence of anemia in teenage girls in class iron for teenagers, as well as ways to prevent anemia during adolescence because adolescence is a period of growth and development that requires special attention to avoid anemia.

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