



## **Compliance with consuming blood supplement tablets can reduce the incidence of anemia in young women in Bengkulu City**

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### **ABSTRAK**

**Latar Belakang:** Anemia merupakan salah satu masalah kesehatan masyarakat seluruh dunia, secara global prevalensi anemia tertinggi di wilayah Asia Tenggara 46,6%, sedangkan di Indonesia 31,2%.

**Tujuan:** Tujuan penelitian untuk mengetahui hubungan kepatuhan konsumsi tablet tambah darah dengan kejadian anemia pada remaja putri di Kota Bengkulu.

**Metode:** Penelitian menggunakan pendekatan Cross Sectional. Sampel dihitung dengan rumus Slovin didapatkan sampel minimal 160 orang. Variabel independen yaitu kepatuhan konsumsi tablet tambah darah, variabel dependen yaitu kejadian anemia, Sedangkan variabel confounding dalam penelitian ini adalah pengetahuan, sikap, persepsi dan dukungan teman sebaya. Pengumpulan data kadar hemoglobin menggunakan easy touch GCHb sedangkan data kepatuhan, pengetahuan, sikap, persepsi dan dukungan teman sebaya menggunakan kuesioner. Semua data yang diperoleh diuji analisis univariat, bivariat, multivariat dengan menggunakan uji Chi Square dan Regresi Logistik.

**Hasil:** Hasil penelitian dengan uji analisis univariat diketahui responden anemia (14%) responden tidak anemia (86%). Responden tidak patuh mengkonsumsi tablet tambah darah (27,5%) responden patuh (72,5%). Hasil uji analisis bivariante yaitu ada hubungan bermakna antara kepatuhan dengan kejadian anemia pada remaja putri ( $pvalue 0,000 < 0,05$ ). Tidak ada hubungan pengetahuan, sikap, persepsi dengan kejadian anemia, dan ada hubungan yang bermakna antara dukungan teman sebaya dengan kejadian anemia serta hasil uji analisis multivariate yaitu variabel yang paling berpengaruh adalah Kepatuhan dengan nilai PR (119,214).

**Kesimpulan:** Terdapat hubungan antara kepatuhan mengkonsumsi tablet tambah darah dengan kejadian anemia pada remaja putri. Variabel yang paling berpengaruh adalah Kepatuhan, sehingga diperlukan dukungan dari orang tua, dan teman sebaya untuk meningkatkan pengetahuan tentang pentingnya remaja putri mengonsumsi suplemen zat besi sehingga akan meningkatkan kepatuhan remaja mengkonsumsi tablet tambah darah.

**KATA KUNCI:** kepatuhan; anemia; pengetahuan; sikap; dukungan teman sebaya

### **ABSTRACT**

**Background:** Anemia is a public health problem throughout the world, globally the highest prevalence of anemia is in the Southeast Asia region at 46.6%, while in Indonesia it is 31.2%.

**Objectives:** The aim of the study was to determine the relationship between adherence to blood supplement consumption and the incidence of anemia in young women in Bengkulu City.

**Methods:** The research uses a cross sectional approach. The sample was calculated using the Slovin formula, obtaining a minimum sample of 160 people. The independent variable is compliance with blood supplement tablet consumption, the dependent variable is the incidence of anemia, while the confounding variables in this research are knowledge,

*attitudes, perceptions and peer support. Data collection on hemoglobin levels used easy touch GCHb while data on compliance, knowledge, attitudes, perceptions and peer support used a questionnaire. All data obtained were tested for univariate, bivariate and multivariate analysis using the Chi Square test and Logistic Regression*

**Results:** *The results of research using univariate analysis tests showed that respondents were anemic (14%) and respondents were not anemic (86%). Respondents did not comply with taking blood supplement tablets (27.5%) respondents complied (72.5%). The results of the bivariate analysis test were that there was a significant relationship between compliance and the incidence of anemia in adolescent girls ( $p$  value  $0.000 < 0.05$ ). There is no relationship between knowledge, attitudes, perceptions and the incidence of anemia, and there is a significant relationship between peer support and the incidence of anemia as well as the results of the multivariate analysis test, namely the most influential variable is Compliance with PR value (119.214).*

**Conclusions:** *Conclusions and research suggestions show a relationship between adherence to consuming blood supplement tablets and the incidence of anemia in adolescent girls, so support from parents, health professionals, teachers and peers, as well as increased knowledge of the importance of adolescent girls consuming iron supplements are needed to increase compliance. taking blood enhancing tablets*

**KEYWORDS:** *obedience; anemia; knowledge; attitude; peer support*

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## INTRODUCTION

According to World Health Organization (WHO), anemia is a disorder in which the body does not have enough red blood cells or hemoglobin to meet its physiological needs. Anemia is grouped into 3 parts based on the Hb value, namely mild, moderate and severe. The global prevalence of anemia occurred in 194 countries from 2000 – 2019. The global prevalence of anemia in 2019 was 29.9% in women of childbearing age, 36.5% in pregnant women, and 29.6% in non-pregnant women. The highest prevalence of anemia in 2019 was in the Southeast Asia SDG region of 46.6%, the African region of 40.4% and the Eastern Mediterranean region of 34.9%. The prevalence of anemia in women of reproductive age (15-49 years) in Indonesia in 2019 was 31.2% (1). According to the 2018 Basic Health Research (RISKESDAS), the incidence of anemia in pregnant women in

Indonesia is 48.9%, 84.6% of which occurs in the 15-24 year age group (2).

There are several causes of anemia, including a lack of protein, folic acid, vitamin B12, or iron. Blood loss, both acute and chronic, and inadequate production/quality of red blood cells are the main direct causes of anemia (3). Short-term negative impacts can lead to delayed physical growth and delayed sexual maturity. Meanwhile, the long-term negative impact that arises on young women with anemia is when the young women later become pregnant women and experience anemia, they will not be able to meet the nutritional needs for themselves and the fetus they contain. So that it can cause complications in pregnancy and childbirth so that it raises the risk of maternal death, prematurity rates, low birth weight babies and perinatal mortal (4).

One of the efforts made by the government in tackling the incidence of anemia is the program of administering blood-supplementing tablets to young women and WUS. The distribution of blood-supplementing tablets is channeled through UKS in educational institutions (junior high school and high school or equivalent). The dose given is one iron-added tablet every week throughout the year with a total of 52 items(5).

A study conducted by Putra stated that there was a significant relationship between adherence to taking iron tablets and the incidence of anemia. Hb levels are strongly influenced by how consistently a person takes Fe supplements. To increase female adolescent compliance, support from parents, teachers, and further education is needed about the value of iron supplementation in adolescents (6). Adolescent girls who have a strong understanding of anemia, a supportive family, then supportive peers will take iron supplements more often. The support from the teacher has nothing to do with taking iron supplements(7).

Knowledge, attitudes, perceptions about the importance of iron tablets, and the role of peers are very influential in young women consuming iron (Fe) tablets regularly and greatly affect the mindset of young women about anemia, about the dangers of iron (Fe) deficiency.

The adherence of young women in consuming Fe tablets will also have an impact on the health of young women. This is what prompted the researchers to analyze the "Relationship of Blood Supplement Tablet Consumption Compliance with Anemia Incidence in Young Women in Bengkulu City".

## MATERIALS AND METHODS

This research is a type of quantitative research with an analytic observational research design approach Cross Sectional. Cross Sectional Research is research where researchers measure/ observing independent and dependent variable data only once at a time (8). It will be held from 13 to 25 May 2023. This research was carried out in 3 schools, namely Madrasah Aliyah Hidayatul Qomariyah Islamic Boarding School (PPHQ), SMKN 6 Bengkulu City and SMAN 11 Bengkulu City, Kampung Melayu District, Bengkulu City. The research sample size that can be measured using the Slovin formula is as follows:

$$n = \frac{N}{1 + N (d)^2}$$

Information :

**n** : Number of samples

**N** : Total population

**d** : Significant level (d=0.05)

So the minimum sample size that must be studied is:

$$n = \frac{265}{1 + 265 (0.05)^2}$$

$$n = \frac{265}{1 + 265 (0.0025)}$$

$$n = \frac{265}{1 + 0.6625}$$

$$n = \frac{265}{1.6625}$$

$$n = 159.39$$

The sampling technique used is nonprobability sampling with purposive sampling. The minimum sample to be studied is 160 respondents. Data collection on hemoglobin levels uses easy touch GCHb while data on compliance, knowledge, attitudes, perceptions and peer support using a questionnaire. The independent variable is adherence to blood supplement consumption, the dependent variable is the incidence of anemia, while the confounding variables in this study are knowledge, attitudes, perceptions and peer support. All data obtained were tested for univariate, bivariate, multivariate analysis using the Chi Square test and SPSS 24

Logistic Regression. with letter number-Ethical Clearance (No.KEPK.BKL/-263/05/2023) Poltekkes Kemenkes Bengkulu.

## RESULTS AND DISCUSSION

### RESULTS

#### *Univariate analysis*

Based on **Table 1**, the results obtained were that almost half of the respondents had anemia (14%) and most of the respondents did not have anemia (86%). The results also showed that most of the respondents were non-adherent in taking iron tablets (27.5%) and most of the respondents were obedient in consuming iron tablets (72.5%).

**Table 1. Incidence of anemia and compliance consuming blood supplement tablets**

Variable	Category	Frequency (n)	Percentage (%)
Anemia Incidence	Anemia	31	14.00%
	Not Anemic	191	86.00%
	Total	222	100.00%
Obedience	Disobedient	61	27.50%
	Comply	161	72.50%
	Total	222	100.00%

**Table 2. Correlation between compliance with blood supplement tablet consumption and other factors with the incidence of anemia in young girls in Bengkulu City**

Obedience	Anemia incidence				Total	P value	PR	CI 95%	
	Anemia		Not anemia						
	n	%	n	%					
Disobedient	30	49.2	31	50.8	61	100	0	79.18	11.037-568.032
Comply	1	0.6	160	99.4	161	100			
Knowledge							0.068	1.826	0.955-3.490
Less	14	20.3	55	79.7	69	100			
Good	17	11.1	136	88.9	153	100			
Attitude							0.167	1.582	0.825-3.033
Negative	14	18.4	62	81.6	76	100			
Positive	17	11.6	129	88.4	146	100			
Perception							0.53	1.232	0.641-2.368
Negative	16	15.5	87	84.5	103	100			
Positive	15	12.6	104	87.4	119	100			
Peer Support							0	6.865	3.457-13.633
Less	21	40.4	31	59.6	52	100			
Good	10	5.9	160	94.1	170	100			

### Bivariate analysis

Based on **Table 2**, it shows that the incidence of anemia is more in non-compliant respondents (49.2%) compared to obedient respondents (0.6%). test results Who Square showed that there was a significant relationship between compliance with the incidence of anemia in young women (pvalue of 0.000 <0.05), the results of the calculation Prevalence Ratio (PR) showed that respondents who did not comply were 79.180 times at risk of experiencing anemia compared to those who adhered (95% CI, 11.037-568.032).

The results showed that the incidence of anemia was more among respondents with less knowledge (20.3%) compared to respondents with good knowledge (11.1%). test results Who Square (pvalue of 0.068 > 0.05) meaning that H0 failed to be rejected indicating that there is no significant relationship between knowledge and the incidence of anemia in young women.

Based on the table above, the results show that the incidence of anemia is more

among respondents who have a negative attitude (18.4%) than respondents with a positive attitude (11.6%). test results Who Square (pvalue of 0.167 > 0.05) meaning that H0 failed to be rejected indicating that there is no significant relationship between attitude and the incidence of anemia in young women.

From the table above, the results show that the incidence of anemia is more in respondents with negative perceptions (15.5%) than respondents with positive perceptions (12.6%). test results Who Square (pvalue of 0.530 > 0.05) meaning that H0 failed to be rejected indicating that there is no significant relationship between perception and the incidence of anemia in young women.

From the table above, it is obtained data on the incidence of anemia more in respondents who received less peer support (40.4%) than respondents who received good peer support (5.9%). test results Who Square (pvalue equal to 0.000 <0.05) means that H0 is rejected indicating that there is a significant relationship between peer support and the incidence of anemia in young women.

**Table 3. Other factors associated with compliance with consumption of blood supplementary tablets in young women in Bengkulu City**

Knowledge	Compliance with consuming blood supplement tablets				Total	P value	PR	CI 95%	
	Disobedient		Comply						
	n	%	n	%					
Less	27	39.1	42	60.9	69	100	0.009	1.761	1.160-2.674
Good	34	22.2	119	77.8	153	100			
Attitude									
Negative	19	25	57	75	76	100	0.551	0.869	0.546-1.384
Positive	42	28.8	104	71.2	146	100			
Perception									
Negative	30	29.1	73	70.9	103	100	0.609	1.118	0.729-1.714
Positive	31	26.1	88	73.9	119	100			
Peer Support									
Less	28	53.8	24	46.2	52	100	0	2.774	1.866-4.123
Good	33	19.4	137	80.6	170	100			

Based on **Table 3**, it was found that more non-compliant respondents were in the less knowledge group (39.1%) than in the good knowledge group (22.2%). Test results Who Square (pvalue of 0.009 <0.05) means that H0 is rejected indicating that there is a significant relationship between knowledge and adherence to taking iron tablets in young women.

Based on the table above, the results show that there are more respondents with a positive attitude (28.8%) than respondents with a negative attitude (25%). Test results Who Square (pvalue of 0.551 > 0.05) means that H0 failed to be rejected indicating that there is no significant relationship between attitude and adherence to taking iron tablets in young women.

From the table above, the results show that there are more non-compliant respondents in the group of respondents with negative perceptions (29.1%) than respon-

dents with positive perceptions (26.1%). Test results Who Square (pvalue of 0.609 > 0.05) means that H0 failed to be rejected indicating that there is no significant relationship between perception and adherence to consumption of iron supplement tablets in young women.

From the table above, the data shows that there are more disobedient respondents in the group of respondents with less peer support (53.8%) than respondents with good peer support (19.4%). Test results Who Square (pvalue equal to 0.000 <0.05) means that H0 is rejected indicating that there is a significant relationship between peer support and adherence to consumption of iron supplement tablets in young women.

#### Multivariate analysis

From **Table 4**, information is obtained that the most influential variable is compliance with value pvalue 0.000 and PR value 119.214.

**Table 4. The most dominant factor on the incidence of anemia in young women in Bengkulu City**

	Variable	P value	Df	PR	CI 95%
Step 1 <sup>a</sup>	Obedience	0	1	133.349	16.573-1072.942
	Knowledge	0.904	1	0.933	0.304-2.866
	Attitude	0.342	1	1.874	0.514-6.833
	Peer Support	0.004	1	5.374	1.687-17.119
Step 2 <sup>a</sup>	Obedience	0	1	131.963	16.521-1054.092
	Attitude	0.343	1	1.842	0.521-6.509
	Peer Support	0.004	1	5.39	1.694-17.153
Step 3 <sup>a</sup>	Obedience	0	1	119.214	15.302-923.739
	Peer Support	0.001	1	6.685	2.267-19.713

a. Variable (s) entered on step 1 : obedience, knowledge, attitude, peer\_support

## DISCUSSION

An overview of the distribution of the frequency of adherence and the incidence of anemia in young women at MA PPHQ Bengkulu City, SMKN 6 Bengkulu City and SMAN 11 Bengkulu City, Kampung Melayu

#### District, Bengkulu City

The population in this study were all young girls in grades X and Xi at MA PPHQ totaling 83 people, all young girls in grades X and Xi at SMKN 6 totaling 86 people and all girls in class X at SMAN 11 totaling 96 people,

with a sample minimum number of 160 people. Almost some of the respondents had anemia (14%), most of the respondents did not have anemia (86%). Almost half of the respondents did not adhere to consuming iron tablets (27.5%) and most of the respondents adhered to consuming iron tablets (72.5%).

*The relationship of compliance with blood supplement tablet consumption and the incident of anemia in young women in Bengkulu City*

From **Table 2**, the results of this study show that the incidence of anemia was more in non-compliant respondents (49.2%) compared to adherent respondents (0.6%). test results Who Square showed that there was a significant relationship between compliance with the incidence of anemia in young women (pvalue of  $0.000 < 0.05$ ), the result of the calculation Prevalence Ratio (PR) showed that respondents who did not comply were 79.180 times at risk of experiencing anemia compared to those who adhered (95% CI, 11.037-568.032).

In line with the research conducted by Putra which said that there was a significant relationship between adherence to taking Fe tablets and the incidence of anemia. Hb levels are strongly influenced by how consistently a person takes Fe supplements. To increase female adolescent compliance, support from parents, teachers, and further education is needed about the value of iron supplementation in adolescents(6). Health care professionals must be oriented about this health problem among this age group and also be supported to help them assess, intervene, and regularly evaluate this

problem, especially within a school setting. (9). Researchers assume that adolescent compliance in taking iron tablets can have an impact on this association. Hb levels will increase if teenagers take iron tablets as recommended on a regular basis. Meanwhile, the Hb value will decrease if the adolescent refuses to take iron tablets with a predetermined dose. Therefore, it can be said that the incidence of anemia in young women and adherence to taking iron supplements are related. Support from parents, health professionals, instructors and peers, as well as raising awareness of the importance of young women taking iron supplements is needed to improve adherence.

The results of this study also showed that some young women who were not compliant with taking iron tablets did not experience anemia with a percentage of 50.8%. good attitude regarding anemia so that these adolescents know the impact of anemia but are reluctant to consume Fe tablets. They prefer to meet iron needs by consuming foods sourced from vegetables such as spinach, broccoli, potatoes, etc. food that is consumed daily, and also adopt a healthy lifestyle such as exercising, not drinking carbonated drinks and maintaining a sleep pattern by sleeping 8 hours a day. thus even though young women do not adhere to taking Fe tablets but they adopt a healthy lifestyle, so young women will not experience anemia. Consuming more than four nutritious food groups is protective against anemia (10). Consumption of eggs daily or weekly was negatively associated with anemia incidence compared with occasional or never consumption. Females had a higher risk of experiencing an incidence of anemia and

decreased risk of experiencing anemia remission (11).

The results of this study also showed that there were respondents who were obedient but also experienced anemia with a percentage of 0.6%. Anemia can be caused by poor nutritional status and/or poor health conditions. In adolescence, anemia is mostly caused by nutritional problems that often occur due to rapid growth and physical changes, high iron requirements, high rates of infection and worms, and early marriage and teenage pregnancy (12).

Researchers assume that there are young women who adhere to taking blood-supplementing tablets but experience anemia. This can be influenced by unhealthy lifestyles and consumption patterns of blood-supplementing tablets that are still wrong, such as consuming blood-supplementing tablets together with drinking tea and milk, so that iron absorption becomes hampered. This is what can cause anemia in young women even though these adolescents are obedient in consuming Fe tablets.

*Relationship of knowledge, attitudes, perceptions and peer support with the incidence of anemia in young women in Bengkulu City*

Based on **Table 2**, the results show that the incidence of anemia is more in respondents with less knowledge (20.3%) compared to respondents with good knowledge (11.1%). The results of the Chi Square test (pvalue of  $0.068 > 0.05$ ) means that  $H_0$  failed to be rejected indicating that there is no significant relationship between knowledge and the incidence of anemia in young women.

The results of this study are in accordance with the research conducted by Umriaty and Qudriani showing that there is no significant relationship between knowledge and anemia status in female students at SMK Negeri 2 Tegal City (p value 0.399) (13). The results of Adnyana's research stated that despite having sufficient information, most young women at SMP Dwijendra Denpasar did not regularly take iron supplements. Many factors, whether explored by researchers or not, contribute to non-adherence. It is hoped that health workers, schools and families will be actively involved in providing various types of health education that can increase the interest and intention of young women to participate in iron supplementation programs in order to encourage adherence of young women (14).

The results of this study also show that some respondents who are anemic but have good knowledge with a percentage of 11.1%, this can be caused by menstruation, and the desire of young women for a small stomach are factors that influence the prevalence of anemia, and both have an impact on how good nutrition is somebody (15). Behavior (consumption of iron supplement tablets) is not only influenced by internal factors which include knowledge, but also influenced by external factors which include the environment and other internal factors, namely intelligence, emotional perception and motivation which play a role in processing stimuli from outside. So that it can be explained that there are students with good or sufficient knowledge categories who do not use iron supplement tablets as recommended by the government, the reason may be due to lack of motivation and

awareness, so that their ability to deal with external stimuli is also weak (16).

Researchers assume that young women with good knowledge but experience anemia is because young women experience menstruation every month, besides that dietary habits carried out by adolescents and a lack of consuming animal foods can increase the vulnerability of young women to anemia. In teenagers, heavy menstruation can sometimes cause anemia. Blood loss during menstruation, poor food intake or diet containing iron, vitamin B12, vitamin B6, vitamin C and copper (17). Several factors can affect differences in a person's menstrual length, namely psychological factors, environment, age, and hormonal imbalance. If a person has menstrual periods that are too long, they will cause cumulative more blood loss, so the possibility of anemia occurs. (18)

The results of this study also showed that young women who were not anemic actually had less knowledge (79.7%), the researchers assumed that this could be due to the level of family income where the better the level of family income, the better the fulfillment of nutritional needs. according to Suryani, respondents with a low level of parental income do not pay too much attention to the nutritional content consumed, while respondents with a high level of parental income can buy nutritious food and their parents always prepare breakfast and balanced nutritious food(19).

Based on the table above, the results show that the incidence of anemia is more among respondents who have a negative attitude (18.4%) than respondents with a positive attitude (11.6%). Test results Who Square (pvalue of 0.167 > 0.05) meaning that

H0 failed to be rejected indicating that there is no significant relationship between attitude and the incidence of anemia in young women. The results of this study are in line with research conducted by Jaswadi which stated that there was no relationship between attitudes and the incidence of anemia in young women. This study shows that even though anemic adolescent girls have a positive attitude towards anemia prevention, it can still cause anemia in adolescent girls if parent's income and knowledge about how to provide various foods are not supported(20).

From the table above, the results show that the incidence of anemia is more in respondents with negative perceptions (15.5%) than respondents with positive perceptions (12.6%). Test results Who Square (pvalue of 0.530 > 0.05) meaning that H0 failed to be rejected indicating that there is no significant relationship between perception and the incidence of anemia in young women. The results of this study are in line with the research conducted by Umriaty and Qudriani which states that there is no significant relationship between perceived seriousness and anemia status (p value 0.145). The findings of this study indicate that respondents have an unfavorable opinion because they do not know the benefits of iron supplements in preventing anemia in young women. Respondent's negative perception of their vulnerability if they don't take iron supplements causes them not to take them as recommended(13).

From the table above, it is obtained data on the incidence of anemia more in respondents with less peer support (40.4%) than in respondents with good peer support (5.9%). test results Who Square (pvalue equal

to 0.000 <0.05) means that H<sub>0</sub> is rejected indicating that there is a significant relationship between peer support and the incidence of anemia in young women. These results are in line with research conducted by Utomo, who claims there is a relationship between the environment and the use of iron supplements by young women. The immediate environment of the young woman, including her parents, friends and neighbors who can urge her to take iron supplements, is the environment in question. Peer connections are individual relationships that require a fair amount of group intimacy. This shows how peers function as a platform for dialogue so that behavior modification often occurs. This habit is included in the category of eating behavior. Teenagers also have a great need to conform to their friends or peer groups, which makes them imitate behavior. It is estimated that if her peers consistently take iron supplements, these young women will do the same(7).

Researchers assume that there is a relationship between peer support and the incidence of anemia because of the association of young women, usually young women spend more time with their peers and are more trusting and open to their peers compared to their parents, so with the support of peers, adolescents tend to follow what his friends do.

*Correlation between knowledge, attitudes, perceptions and peer support with compliance with blood supplement tablet consumption in Bengkulu City*

Based on **Table 3**, it was found that more non-compliant respondents were in the less knowledge group (39.1%) than in the

good knowledge group (22.2%). test resultsWho Square (pvalue of 0.009 <0.05) means that H<sub>0</sub> is rejected indicating that there is a significant relationship between knowledge and adherence to taking iron tablets in young women. The results of this study are in line with the research conducted by Wahyuningsih which states that there is a significant relationship between knowledge and adherence to taking iron tablets (21). Research conducted by Agustina states that when compared to female adolescents who are quite aware, those who are in the good knowledge category are 2.45 times more likely to follow instructions and consume Supplementary Blood Tablets(22).

Based on the table above, the results show that there are more respondents with a positive attitude (28.8%) than respondents with a negative attitude (25%). The results of the Chi Square test (pvalue of 0.551 > 0.05) means that H<sub>0</sub> failed to be rejected indicating that there is no significant relationship between attitude and adherence to taking iron tablets in young women. This is in line with Mardiah's research which states that there is no relationship between young women's attitudes about anemia and their behavior in consuming iron tablets(23).

From the table above, the results show that there are more non-compliant respondents in the group of respondents with negative perceptions (29.1%) than respondents with positive perceptions (26.1%). Test resultsWho Square (pvalue of 0.609 > 0.05) means that H<sub>0</sub> failed to be rejected indicating that there is no significant relationship between perception and adherence to consumption of iron supplement tablets in young women. This

research is in line with previous studies which stated that the variables perceived vulnerability, perceived seriousness, and perceived obstacles were not statistically related to the intention of young women to consume iron tablets(24).

This research is also in line with previous studies which stated that there is no relationship between general perceptions and the use of iron supplements. There is no difference between those who have a negative view and the percentage of respondents who consume iron tablets. This shows that the respondent's decision to take iron pills is not influenced by their point of view. Positive perceptions do not force respondents to take iron supplements. This is possible because even though the respondent has a good opinion, his behavior is still influenced by several other factors, such as his fear of consuming, and students' lack of knowledge and information(25).

From the table above, the data shows that there are more disobedient respondents in the group of respondents with less peer support (53.8%) than respondents with good peer support (19.4%). Test results Who Square (pvalue equal to 0.000 <0.05) means that H0 is rejected indicating that there is a significant relationship between peer support and adherence to consumption of iron supplement tablets in young women. This research is in line with research conducted by Utomo which showed that there was a significant relationship between peers and the consumption of iron supplements. Peers play an important role in encouraging and reminding other young women to consistently consume iron supplements. Teachers and parents need to learn more about anemia and

the use of iron supplements in adolescents so that young women can disseminate this information to their peers and more young women who regularly take iron supplements because they are encouraged by the habits of their friends (7).

#### *Knowing the most dominant factor for the incidence of anemia in young women in Bengkulu City*

From **Table 4**, the variable that has the strongest/dominant influence on the incidence of anemia in Bengkulu City in 2023 is seen from Prevalence Ratio The biggest is Compliance with value pvalue 0.000 and a PR value of 119.214, which means that adolescents who do not adhere to taking blood-supplementing tablets are at risk of 119.214 times experiencing anemia compared to adolescents who adhere to taking blood-supplementing tablets. then peer support with values pvalue 0.001 and a PR value of 6.685, which means that adolescents with peer support are less at risk of developing anemia 6.685 times than adolescents with good peer support.

In line with research conducted by Putra which showed that there was a significant relationship between adherence to taking Fe tablets and the incidence of anemia. Hb levels are strongly influenced by how consistently a person takes Fe supplements. To increase female adolescent compliance, support from parents, teachers, and further education is needed about the value of iron supplementation in adolescents (6). The low adherence of young women in taking iron supplements is caused by the absence of direct supervision and assistance from health

workers, educators, and families. They always encourage every young girl who receives iron supplements to take iron supplements regularly, and health workers and teachers also provide information about the advantages and disadvantages of iron supplements. Their limitation is that they cannot directly observe young women taking iron supplements, this is based on the results of interviews with health workers at the puskesmas and teachers at school. Adherence of young women in following the recommendations of health workers to take iron supplements is a concept of adherence in terms of use. The accuracy of the number of tablets taken, how to take the tablets correctly, and the frequency of taking the tablets every week are used to measure adherence to taking Fe tablets(26).

These results are in line with research conducted by Utomo, who claims there is a relationship between the environment and the use of iron supplements by young women. The immediate environment of the young woman, including her parents, friends and neighbors who can urge her to take iron supplements, is the environment in question. Peer connections are individual relationships that require a fair amount of group intimacy. This shows how peers function as a platform for dialogue so that behavior modification often occurs. This habit is included in the category of eating behavior. Teenagers also have a great need to conform to their friends or peer groups, which makes them imitate behavior. It is estimated that if her peers consistently take iron supplements, these young women will do the same(7).

It makes sense that peers have a significant impact on attitudes, speech,

interests, appearance and behavior because adolescents spend more time outside the family with their peers as a group. Consequently, the use of iron supplements and peer involvement in modifying behavior is critical(7).

## **CONCLUSION AND RECOMMENDATION**

The conclusion in this study is that there is a relationship between compliance with the incidence of anemia, so that support from parents, health professionals, teachers and peers, as well as increased knowledge of the importance of young women taking iron supplements is needed to increase adherence.

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