

## The Effect Of Health Education On The Knowledge And Attitudes Of Adolescent Health Cadres About Table Fe Consumption In Sma N 1 Kediri Regency

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### Article Information

Received: October 2022  
Revised: December 2022  
Available online: January, 2023

### Keywords

Knowledge, Attitude, KKR

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### ABSTRACT

Anemia in young women has an leverage on impaired physical growth, derivation endurance, intelligence, acquire achievement and concentration, listless, wan, and uninspired. The objective of study was to determine the influence of health education on the knowledge and attitudes of Adolescent Health Cadres (KKR) at SMA N 1 Kediri Regency. The method used is quasi-experimental with a one group pretest-posttest design. The sample was 80 students of SMA N 1 Kediri Regency. The variables in the study were independent variables (health education interventions about fe tablet consumption) and dependent variables (knowledge and attitudes). The research measuring instruments used questionnaires and analyzed by univariate analysis, normality test with one kolmogorov-smirnov test, and bivariate analysis using wilcoxon test. The results was an influence of health education on the knowledge ( $p = 0.000$ ) and attitudes ( $p = 0.000$ ) of adolescent health cadres (KKR) about the consumption of Fe tablets. The health promotion organizing team needs to prioritize effective methods and attract students' interest in following the material provided.

### INTRODUCTION

Young women experience changes in their reproductive system so that they have menstruation every month, so they are at risk of anemia with a prevalence of 25% (Simanungkalit & Simarmata, 2019). Be based Riskesdas (2018), the anemia in feminin (27.2%) is more than men (20.3%). The anemia of 5-24 years was 32% in 2018 (Amareta & Ardianto, 2018).

Apart from the menstrual conditions experienced by young women, there are other factors that cause anemia in young women, lack of iron intake in the food consumed every day which is characterized by young women complaining of fatigue easily when at school and when checked hemoglobin (Hb) levels below normal, lack of consumption of vegetable protein, low consumption of foods high in iron, high habit of drinking tea and coffee in

conjunction with the main food, irregular diet, and irregular consumption of TTD (Blood Add Tablets) (Amareta & Ardianto, 2018).

The results of the study stated that high school girls in Tasikmalaya Regency with a weekly TTD program and 10 tablets during menstruation can help increase Hb levels by  $0.48 \pm 1.04$  g / dL. Meanwhile, the indirect causative factor in anemia in young women is a low socioeconomic situation that can affect income and the type of food purchased. The statement is in accordance with research conducted in middle school adolescents stating that 80% of students from low economic circles cause anemic events. Other factors include education, level of nutritional knowledge, and physical activity (Susanti et al., 2016). Anemia in young women has an leverage on impaired physical growth, derivation endurance, intelligence, acquire achievement and concentration, listless, wan, and uninspired. Low body mass index, defletion immunity, disiated, infection and low psychomotor changes are embodiment of child anemia (Permaesih & Herman, 2015). The substantial of iron in an effort to maintain the body's immunity with biochemical and cellular processes (Khairunnisa et al., 2020).

Adolescent girls get more risk of developing anemia than young men. Every month in adolescents the princess has menstruation (Aminah & Purwati, 2019). A woman who has had a lot of menstruation for more than five days is worried that she will lose iron, so she needs more switch iron than a woman whose menstruation is only three days and less. The second reason is because adolescent daughters often take care of

mine, the appetite to stay thin so that they diet. A diet that is not equal with the body's nutritional needs will cause the body to grand nutrients such as iron (Arisman, 2011). The impacts caused by anemia include a decrease in children's motor abilities, decreased IQ scores, decreased cognitive, mental abilities of children, decreased adolescent productivity, pregnancy and fetal complications in pregnant women, growth disorders, immunity and susceptibility to toxins from heavy metals (Fitranti et al., 2022).

Based on research to prevent and overcome anemia due to iron deficiency in young women, including providing education and nutritional counseling related to increasing consumption of iron source foods, fortifying foodstuffs, and iron supplementation through the provision of TTD (Swara, 2014). This statement is in accordance with the research contained in the study stated that the group of young women in class IX SMP 2 Ungaran showed that the implementation of the FGD program was effective in increasing students' knowledge about anemia prevention by increasing their average knowledge from 62.4% to 87.5.5 The activity was carried out by the participation of the role of Adolescent Health Cadres (KKR) in the School Health Business (UKS) program (Fitranti et al., 2022).

KKR has knowledge about adolescent health which can be an agent of change for adolescent health problems, especially adolescent anemia (Erlianasari, 2019). The involvement of students as adolescent health cadres makes them the subject of development and become role models and supervisors for peers in terms of consumption of Fe tablets, so that they can play a conscious and responsible

role in health development (Anifah, 2020)(Badan Pusat Statistik, 2020).

The results of the previous presentation, we want to conduct a study with the aim of analyzing effect of health education on knowledge and attitudes of adolescent health cadres (KKR) to the consumption of Fe tablets. Therefore, prevention and countermeasures through provision of health promotion about the consumption of Fe tablets among students are very important. Therefore, the researcher formulated a research problem, namely, "How does Health Education Affect the Knowledge and Attitudes of Adolescent Health Cadres

(KKR) about Fe Tablet Consumption in SMA N 1 Kediri Regency?"

## METHOD

This was an analytic study with Quasi-experimental Design (a one group pretest-posttest). This study was conducted at SMAN 1 Pare. A total of 80 students, was selected for this study (total sampling). The dependent variables were knowledge and attitudes. The independent variable was health education. The data were collected by a questionnaire and analyzed by ubivariate, normaly test with Kolmogorov-smirnov one sample test.

## RESULTS

The frequency distribution characteristic of the subject of study can be described in table 1 as follows :

Table 1 Characteristics of the Research Subject

Characteristic	Criterion	n	%
Age	16 year	55	68,75
	17 year	25	31,25
Gender	Female	45	56,25
	Male	35	43,75
Class	1	30	37,50
	2	30	37,50
	3	20	25,00

The characteristics of the study subjects including age, gender and class level. The subjects of the study who participated in this study were a total of 80 students who were given health education interventions. In the age variable, the most students aged 16 years were 55 respondents (68.75%), while the least students aged 17 years were 25 respondents (31.25%). The

gender variable of many female students was 45 respondents (56.25%), while the least male students were 35 respondents (43.75%). In the class-level category, the most students in grades 1 and 2 are 30 respondents (37.50%), while the least are level 3 students, namely 20 respondents (25.00%).

Table 2 Characteristics of Research Variables

Characteristic	Criterion	n	%
Pre test knowledge	Low knowledge	37	46,20
	High knowledge	43	53,80
Pre test attitudes	Negative attitudes	35	43,80
	Positive attitude	45	56,20
Post knowledge test	Low knowledge	26	32,50
	High knowledge	54	67,50
Post attitude test	Negative attitudes	28	35,00
	Positive attitude	52	65,00

The characteristics of research subjects including pre-test and post-test knowledge and attitudes. In advance of variable, the most knowledge was high, namely 43 respondents (53.80%) and the least low knowledge was 37 respondents (46.20%). In the post test variable, the most knowledge was high, namely 43 respondents (53.80%) and the least low knowledge was 37 respondents (46.20%).

In the pre-test variable, the attitude was the most positive attitude, namely 45 respondents (56.20%) and the least negative attitude was 35 respondents (43.80%). In the post-test variable, the most positive attitudes were 52 respondents (65.00%) and the least negative attitudes were 28 respondents (35.00%).

Table 3 Normality Test Results

Variable	p value	Normality Test Results	Statistical Test used
Pre test knowledge	0,016	Not normal	Wilcoxon test
Pre test attitudes	0,000	Not normal	Wilcoxon test

The results of the normality test on the pre-test knowledge p value 0.016 ( $p < 0.05$ ) and attitude p value 0.000 ( $p < 0.05$ ). All variables show abnormal values so the experimental test used is the wilcoxon test.

Table 4 the revenue of the Wilcoxon of the intervention group.

Table 4 Wilcoxon Test Results

Dependent Variables		n	Mean Rank	p values
Knowledge	Negative ranks	7	11,00	0,000
	Positive ranks	57	35,14	
	Ties	16		
Attitude	Negative ranks	4	3,00	0,000
	Positive ranks	60	34,47	
	Ties	16		

The results of the analysis show that negative ranks or difference (negative) between knowledge 7. The mean rank indicates a 11.00. So that it shows a decrease. The positive ranks knowledge are 57. The mean rank value of the increase is 35.14. So that it shows an increase. Ties is the similarity of knowledge of ties is 16, so it can be said that there is an equal value of knowledge. The results of the analysis before and after treatment using the Wilcoxon test showed that  $p = 0.000$  ( $p < 0.05$ ), so it can be concluded that there are differences in knowledge provided by health education interventions about the consumption of Fe tablets.

The results of negative ranks attitude are 4. The mean rank value indicates a value of 3.00. So that it shows a wane. Positive ranks or the difference (positive) attitude is 60. The mean value of the go up rank is 34.47. So that it shows an mount. Ties is the similarity of attitude values for pre-test and post-test, ties value is 16, so it is an equal value of attitudes. The results of the analysis before and after treatment using the Wilcoxon test signify that  $p = 0.000$  ( $p < 0.05$ ), so there are differences in attitudes given by health education interventions about the consumption of Fe tablets.

## **DISCUSSION**

### **Discussion of Knowledge About Table Fe Consumption**

Ways to prevent and overcome anemia in adolescents in Indonesia can be done in several ways, namely by giving blood-added tablets 1 tablet once a week for at least 16 weeks and 1 tablet every day during menstruation (Septadara, 2018). But also in addition to giving blood-added tablets, prevention of anemia. in adolescents, it can be done by means of communication, information, and education (IEC) which is directed at targets both mass, group, and individual regarding the provision of iron supplementation.

Health counseling has methods and teaching and learning processes that run. The method

of counseling is one of the factors that influence the counseling process (Notoatmodjo, 2015). The knowledge that exists in humans is accepted. the more and more obvious it is to understand or gain knowledge.

Health education conducted is significantly different between pretest and posttest knowledge. After the posttest, it seems that their knowledge has increased and at the time of posttest there are no more participants who have less knowledge ( $p = 0.001$ ). This shows that training, counseling, or other forms of refreshment are very necessary for cadres to update their knowledge which has only been struggling in posyandu. The research on 10 posyandu health cadres who were given education about maternal and child health (MCH) books, in this case health education has an share in go up the knowledge of health cadres (Solehati et al., 2018).

Health cadres need up-to-date knowledge because knowledge is always evolving. The knowledge they have gained so far has been less updated. Cadres are an extension of health workers having a role in health services that are near the target activities of posyandu and have a frequency of face-to-face cadres that are more frequent than other health workers (Din, 2016). Increasing the knowledge of health cadres about the prevention of anemia will cause positive rights for pregnant women because the knowledge of health cadres will be transformed to pregnant women in their regions. In addition to being transformed, health cadres will also support and assist pregnant women in the implementation of anemia prevention.

It is hoped that thus the rate of anemia in pregnant women will be reduced. According to research on 100 mothers in posyandu of the Pineleng Health Center, it was invinted that the role of cadres affects maternal knowledge. Therefore, in order for pregnant women to hold good knowledge about the deterence of anemia during pregnancy, the knowledge of health cadres must be

optimized, one of which is by providing health education. The provision of health education is certainly not only limited to material on early detection and prevention of anemia for pregnant women, but for other things. In this case, the claim for go up knowledge is demanded because so far they have been taken on with problems that they themselves claim to get help from.

Increasing knowledge using the Focus Group Discussion metode, in Elfi and Yeni Fitriani's research on the effectiveness of increasing knowledge using the Focus Group Discussion method has an effectiveness of 14.70% in increasing knowledge, so researchers chose the Focus Group Discussion method to be able to increase adolescents' knowledge about anemia prevention. Focus Group Discussion (FGD) is a group discussion method that can develop creativity and can express different opinions (Fitranti et al., 2022).

The researcher's opinion of the study is that KKR has knowledge about adolescent health which can be an agent of change for adolescent health problems, especially adolescent anemia. The involvement of students as cadres stems from the thought of making them the subjects of health development, so that they can play a conscious and responsible role in health development.

#### Discussion of Attitude About Table Fe Consumption

Health education is an practice of the education in the health sector. It is a practical pedagogic or educational practice, therefore it is applied to the health sector (Notoatmodjo, 2010). Attitude is a closed response of a person, which already involves the factors of opinion and emotions in question (happy unhappy, agree-disagree, good-not-good, and so on). One of social psychology that attitude is forwardness to act (Sugiyono, 2017).

The increase in respondents' information about Fe tablets, had an impact on increasing respondents' knowledge about Fe tablets. After they understand about Fe

tablets, respondents will evaluate their behavior in consuming Fe tablets. When they feel that their behavior is not quite right, then they will choose better behaviors, thereby increasing their attitude towards the consumption of table Fe (Septadara, 2018). This is in line with the opinion that the change in attitude includes the first stage, namely unfreezing, which is when the respondent realizes that his actions so far have not been appropriate about Fe tablets. The second stage is changing, namely after the respondent's awareness of their actions so far, then the delivery process forms a new attitude about the consumption of Fe tablets. This change in attitude is influenced by the knowledge that the mother receives as well as the influence of the surrounding environment both information and the influence of others. The third stage is refreezing, this stage respondents evaluate their attitude towards the management of Fe tablet consumption.

It was an influence of health education on improving attitude of pregnant women in consuming Fe tablets. These results correspond to the study Dwi (2000) about factors related to the consumption of Fe tablets at the Kendal II Health Center, Kendal Regency. This study exhibits that consumption of Fe tablets include education, knowledge, and receipt of health information.

The behavior of pregnant women in consuming Fe tablets is influenced by several factors. Factors that influence a person's health behavior include knowledge, beliefs, attitudes, people considered important, resources and culture. Health behavior is an activity or activity of a person both observable and unobservable related to the maintenance and improvement of a person's health. This health maintenance includes protecting yourself from diseases and other health problems, improving health, and seeking healing when exposed to health problems (Suliha & Resnayati, 2019).

Attitude itself is measure, but is a predisposition to action or behavior. A positive attitude to health values is not always manifested in a concrete action. In theory, behavior change follows stages, namely: knowledge-attitude-behavior (PSP). Several studies have proven this, but other studies have also proven that the process is not always like the theory above, even in daily practice the opposite occurs. That is, someone has behaved positively, although his knowledge and attitude are still negative, or someone has behaved negatively even though his knowledge and attitude are positive.

### CONCLUSIONS AND RECOMMENDATION

There was a significant difference in the effect of health education on the knowledge ( $p=0.000$ ) and attitudes ( $p=0.000$ ) of adolescent health cadres (KKR) about table fe consumption. According to researchers, the health promotion presented will help students concentrate more on receiving the material provided. The media used should be interesting so as to increase the attention of students to focus on the material provided. Therefore, the health promotion organizing team needs to implement effective methods and attract students' interest in following the material provided about the consumption of Fe tablets.

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