

## The effect of counseling using leaflets on girl adolescent's knowledge about blood supplementary tablets in *SMP Swasta Nasional* of Langkat district

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### Abstract

Menstruation process in adolescents results in loss of iron in the blood of 12.5-15 mg / month, causing a decrease in Hb levels so it is necessary to take additional supplements, namely blood supplementary tablets. The coverage of giving blood supplementary tablets in 2018 was 76.2% but only 1.4% consumed 52 grains per year. So it is necessary to make an effort to increase the knowledge of girl about blood supplementary tablets, namely by providing counseling using leaflets. This study aims to analyze the effect of counseling using leaflets on girl's knowledge of blood supplementary tablets at *SMP Swasta Nasional* of Langkat Regency in 2021. The type of research was pre-experimental with a one group pretest-posttest design and total sampling, namely 33 students in grade VII. The average knowledge of girl before being given counseling using leaflets was 39.09 with an SD of 5.07, and the average knowledge of girls after being given counseling using leaflets was 75.91 with an SD of 5.51. This means that there is an increase in the average knowledge before and after by 36.82 SD 0.44. The results of the Paired Samples T-test obtained value  $(0.00) < (0.05)$ , meaning that counseling using leaflets was proven to significantly increase the average knowledge of girl. It is expected that school principals and teachers when providing counseling related to increasing students' knowledge are expected to use leaflets as a medium in providing information.

**Keywords:** Counseling Using Leaflet; Knowledge About Blood Supplementary Tablets; Teenage Girl

### 1. Introduction

Adolescence is a period of growth of children towards the process of adult human maturity, in this period physical, biological and psychological changes occur. Physiological changes include the function of reproductive organs such as menstruation. Throughout the reproductive age women will experience menstruation every month which results in blood loss, indirectly losing iron in the blood by 12.5-15mg/month or approximately equal to 0.4-0.5 mg a day (2). The lost iron will cause a decrease in Hb levels in the body, causing anemia.

According to WHO data in 2005 in Worldwide Prevalence of anemia, anemia is said to be a public health problem if the prevalence is >5%. The categories of anemia problems are divided into three, namely, 5%-19.9% is categorized as a minor problem, 20%-39.9% is a moderate problem and >40% is a severe problem. The anemia rate of adolescent girls in Indonesia in 2018 was 48.9% (12). One of the factors that cause anemia is iron deficiency. Iron deficiency can reduce the body's resistance so that it can cause decreased productivity. Iron intake can be obtained through food sources of animal protein, liver, fish and meat. However, not all people can consume these foods, so additional iron intake is needed

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which is obtained from blood supplement tablets (6). Efforts to prevent anemia in adolescent girls are very strategic specific interventions, to prepare healthy prospective mothers to give birth to quality future generations (5)..

Blood supplement tablets are tablets given to adolescent girls. The government has a program for adolescent girls at school that provides one grain of TTD every week throughout the year 52 grains (6). The Ministry of Health through the Director General of Public Health issued a circular letter NO.03.03/V/0595/2016 on the provision of blood supplement tablets to adolescent girls and women of childbearing age. With the target of children aged 12-18 years given through educational institutions. Based on Riskesdas 2018 data, 76.2% of adolescent girls get blood tablets from 76.2% who get blood tablets about 80.9% get from school and from 80.9% who get blood tablets from school only 1.4% consume  $\geq 52$  grains of blood tablets and as many as 98.6% of adolescent girls consume  $\leq 52$  grains. Based on data from (5).

According to Lawrence Green's theory, one of the predisposing factors in health behavior change is the level of knowledge, therefore it is necessary to make efforts to increase the knowledge of adolescent girls about the importance of taking blood supplement tablets to prevent anemia by providing counseling, but the counseling provided is not only by the lecture method, but can use media such as leaflets. Leaflet is a form of delivering information or health messages through folded sheets. The content of information in the form of sentences and images or a combination (10). Awareness to consume blood supplement tablets cannot be separated from information and knowledge, because knowledge is a factor that influences a person's behavior.

A preliminary survey conducted at the National Private Junior High School on February 1, 2023 found that 80% of 10 adolescent girls could not answer questions about the benefits, how to consume and side effects after consuming TTD. Based on this description, the researcher is interested in conducting a study entitled "The Effect of Counseling Using Leaflets on Counseling About Blood Addition Tablets in Psr IV Namu Terasi Village, Sei Bingai District, Langkat Regency in 2023".

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## 2. Material and methods

The type of research used is Pre-experiment, with a research design of one group pre test and post test design. (9)

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## 3. Results and discussion

This study was conducted at the National Private Junior High School of Langkat Regency. In this study, two measurements of adolescent girls' knowledge about TTD were carried out, namely before and after counseling which aims to determine the effect of counseling using leaflets on adolescent girls' knowledge about TTD.

### 3.1. Average Knowledge Distribution of Adolescent Girls

The average distribution of knowledge of adolescent girls at the National Private Junior High School, Sei Bingai District, Langkat Regency in 2023 can be seen in the table below:

**Table 1** Average Distribution of Knowledge of adolescent girls before and after giving counseling using leaflets at the National Private Junior High School, Langkat Regency in 2023

Knowledge	F	Mean	SD
Before	33	39.09	5.07
After	33	7591	5.51

Analysis : There is an increase in the average knowledge of adolescent girls before and after being given counseling using leaflets where there is an increase in the average value of 36.88

### 3.2. Effect of counseling using leaflets on adolescent girls' knowledge about TTD

From the results of the data normality test with Kolmogorov Smirnov, it shows that the knowledge of adolescent girls before and after being given counseling using leaflets is normally distributed where the  $p$  value of knowledge before being given counseling is 0.06 and knowledge after being given counseling is 0.15 ( $\alpha > 0.05$ ), so the statistical test used is the paired samples T-test test. The paired samples T-test is a parametric test to compare two mean differences of two paired samples with normally distributed data. The effect of counseling using leaflets on the knowledge of adolescent girls about TTD at the National Private Junior High School, Langkat Regency in 2023 can be seen in the following table:

**Table 2** The Effect of Counseling Using Leaflets on the Knowledge of Adolescent Girls About TTD at National Private Junior High School, Langkat Regency in 2023

Knowledge	Mean	SD	Mean Differences	P Value	SD Before & After
Before	39.09	5.07	36.82	0.00	0.44
After	75.91	5.51			

Analysis : The statistical test results showed a value of  $p = 0.00$  ( $\alpha < 0.05$ ), so it can be concluded that counseling using leaflets affects the knowledge of adolescent girls.

### 3.3. Theoretical study

#### 3.3.1. Mean Knowledge of Adolescent Girls Before and After Counseling Using Leaflets

The results of the analysis obtained an increase in the average knowledge of adolescent girls by 36.82 after being given counseling using leaflets. Where the knowledge of adolescent girls before being given counseling was 39.01 to 75.01 after being given counseling. These results are in accordance with what was stated (10) that most human knowledge is obtained through vision and hearing. Knowledge is the result of knowing and occurs after a person senses a certain object, the process of arising knowledge from sensing is strongly influenced by the senses of hearing and vision.

There are two factors that affect a person's knowledge such as internal and external factors. Internal factors, namely intelligence, are one of the factors that influence the results of the learning process. Intelligence for a person is one of the capitals to process various information in a directed manner, so that knowledge can also be influenced by the speed at which a person receives the information obtained, as well as external factors, namely information will have an influence on a person's knowledge so that the more a person gets information, the better the knowledge and vice versa. This information can be obtained through mass and electronic media as well as health workers and health counseling.

Even though someone has a low education, if they get good information from various media such as counseling, it can increase a person's knowledge (11). Health counseling is a health education activity carried out by spreading messages, instilling confidence, so that people are not only aware, know and understand, but also want and can do a recommendation that has to do with health (10). The results of this study are in line with research conducted by Fauziah, et al (2017) which showed that there was an increase in the average knowledge of adolescent girls about SADARI by 10.68 after receiving counseling using leaflets. Likewise, research conducted by (13) on anemia at SMAN 1 Semarapura Bali, with the results there was an increase in the average knowledge of adolescent girls by 20 after being given counseling using leaflets.

Likewise, the results of research (4) entitled the effectiveness study of leaflets on the knowledge score of adolescent girls about Dysmenorrhea showed an increase in the average knowledge of adolescent girls by 18.8 after receiving counseling using. In line with research conducted by (7) entitled the effectiveness of knowledge using leaflets on increasing adolescent knowledge about HIV / AIDS showed that there was an increase in the average knowledge of adolescent girls of 19.49 after counseling using leaflets.

There was an increase in knowledge of adolescent girls after being given counseling using leaflets because leaflets are simple information media with a relatively small size and easy to understand, so leaflets are simple media as a reminder of the message where the leaflet can be carried by readers and can be read anywhere (10). Leaflets make respondents read and listen so that it makes it easier for respondents to understand the information conveyed, as well as the opportunity for respondents to participate in discussions and 2-way communication that can increase one's knowledge.

#### 3.3.2. Effect of counseling using leaflets on adolescent girls' knowledge about TTD

The results of statistical tests significantly influenced counseling using leaflets on the knowledge of adolescent girls about TTD with a  $p$  value of 0.00, ( $\alpha < 0.05$ ). Leaflet is one form of media in providing visual-aid counseling which has one of the benefits of facilitating the receipt of information for educational targets. . Media will be very helpful so that the messages conveyed in counseling can be given clearly so that the target can receive messages clearly and precisely which can be seen by the increase in knowledge value (9).

The results of this study are in line with the research of Nurlathifah (2014) which shows that there is an effect of health education with leaflets on the level of knowledge of pregnant women about healthy lifestyles obtained the results of  $p$  value = 0.000 ( $\alpha < 0.05$ ). Likewise, research (8) significantly influenced the balanced nutrition counseling for toddlers with leaflet media on maternal knowledge with the results ( $P$  value = 0.005).

There is an effect of increasing knowledge after being given counseling using leaflets because leaflets are a form of delivering information or health messages through folded sheets, the contents are in the form of sentences or images or a combination. Leaflet is one of the media organized based on the principle that human knowledge is received or captured through the five senses. A good leaflet is to use simple language, easy to understand by the reader, the title used is interesting to read and combined between text and images, and the material is in accordance with the intended target. Leaflets can be widespread and are a useful way to convey information Fauziah (2017).

Counseling using leaflets affects the knowledge of adolescent girls about TTD, because counseling using leaflets makes respondents not only hear but can read the material presented themselves. This is in accordance with what Suprijono stated that leaflet media can display more detailed information. In accordance with its uses and advantages that leaflets are a tool for disseminating simple information and the size of the leaflet is very light so that it is easy to share and carry everywhere (10).

According to the researcher's assumption, the increase in knowledge of adolescent girls is influenced by two factors, namely internal and external factors. Internal factors, namely intelligence, are one of the factors that influence the results of the learning process, so knowledge can also be influenced by the speed at which a person receives the information obtained, as well as external factors, namely information will have an influence on a person's knowledge so that the more a person gets information, the better the knowledge and vice versa.

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#### 4. Conclusion

Based on the results of the analysis and discussion of the results of the study, conclusions can be drawn about the effect of counseling using leaflets on the knowledge of adolescent girls about TTD at the National Private Junior High School of Langkat Regency in 2023

- The average knowledge of adolescent girls before being given counseling using leaflets is 39.09 and the average knowledge of adolescent girls after being given counseling using leaflets is 75.91 so that there is an increase in the average knowledge of adolescent girls before and after giving counseling using leaflets about TTD, which is 36.82.
- There is an effect of counseling using leaflets on the knowledge of adolescent girls about TTD with  $p$  value 0.00 ( $\alpha$  value  $<0.05$ )

Based on the research results obtained, the following are suggested:

- For the Principal and all teachers of the National Private Junior High School, when providing counseling related to increasing student knowledge, it is better to use leaflets as a medium because from the results of this study it was found that counseling using leaflets significantly influenced the increase in knowledge of adolescent girls. Likewise, the health workers of the Pasar IV Namuterasi Health Center when providing regular counseling in schools that are the work area of the Puskesmas, are expected to use leaflets as a medium in providing information.
- For further researchers, it is expected to examine other factors such as internal and external factors that can affect adolescent girls' knowledge about TTD related to counseling using leaflets.

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#### Compliance with ethical standards

##### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

##### *Statement of informed consent*

This study the respondents had agreed and signed the informed consent

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