THE EFFECTIVENESS OF HEALTH EDUCATION WITH MEDIA LEAFLETS ON KNOWLEDGE STUDENTS OF SMP COUNTRY 08 PRAFI ABOUT ANEMIA 2023

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Abstract. Anemia is a condition where the level of hemoglobin (HB) in the blood is less than WHO standards based on gender and age. Young women are more susceptible to anemia because they experience menstruation every month (Fitranti, D.yudi., 2022). This research was carried out according to the planned research time after obtaining research permission. The research was conducted at Prafi 08 Public Middle School for 1 month from February to March with the stages: licensing, research, to data analysis, data interpretation, drawing conclusions. With a population of 41 class IX students. The sample for this study was 41 respondents who were given health education interventions about anemia through leaflets. The data collection or intervention stage was carried out for 20 days which was divided into 2 stages, namely the pre-test knowledge measurement stage before being given a leaflet about anemia and the second stage, namely the post-test measurement stage after being given a leaflet. leaflet about anemia by measuring respondents' knowledge again on the 20th day. From the results of research conducted at Prafi 08 Public Middle School regarding the effect of health education using leaflet media on students' knowledge of Prafi 08 Public Middle School about anemia, there was an effect of health education using leaflet media on junior high school students' knowledge of Prafi 08 Public Middle School students regarding anemia Based on the results of the Wilcoxon test, p-value = 0.0001 ($p<0.05$). This means that there is an influence of health education through leaflet media on Prafi 08 Public Middle School students.

Keywords: Influence, health education, leaflet media, anemia

1 INTRODUCTION

Anemia is a condition where the hemoglobin (HB) level in the blood is lower than WHO standards based on gender and age (Cappellini, M. D., & Motta, I. 2015; Salive ME et al, 1992). Adolescent girls are susceptible to anemia because they menstruate every month (Fitranti D. yudi., 2022; Kounnavong S, et al., 2020). The long-term impact of anemia on female adolescents is that if later female adolescents become pregnant, they will not be able to meet nutritional needs for themselves and also for the fetus in their womb, so that it can increase the frequency of complications, the risk of maternal death, prematurity, LBW, and perinatal death (Mawaddah and Vopy, 2019; Alwan NA and Hamamy H., 2005; Sekhar DL et al, 2016)).

Adolescence Adolescence is a period of developmental transition from childhood to adulthood, aged between 10-24 years (Sawyer S et al, 2018; Rowling L, 2006; Kapur S, 2015). Etymologically, adolescence means growing into adulthood (Vicario, M. H., & Molinero, L. R, 2022; Shcherbo, P. A, 2022; Bogin B, 2013)). The definition of youth (adolescence) according to the World Health Organization (WHO) is the age period between 10 to 19 years, while the United Nations (UN) defines

youth as ages between 15-24 years. Based on the nature or characteristics of its development, the period (span) of adolescence is divided into three stages, namely: early adolescence (10-12 years), middle adolescence (13-15 years), and late adolescence (16-19 years). This definition is then put together in the terminology of young people (young people) which includes the ages of 10-24 years (Kusmiran (2016) in (Ramadhan and Deddy, 2020). Based on Riskesdas Basic Health Research (2018), as many as 32% or three out of ten Indonesian teenagers suffer from anemia. This is influenced by routine nutritional intake that is not optimal and lack of physical activity. Therefore, the government through the Ministry of Health raised the theme Healthy Youth, Free of Anemia at the commemoration of the HGN National Nutrition Day (2021) ministry of health of the republic of Indonesia, (2018). Risk factors associated with the incidence of anemia are knowledge, menstrual duration and food consumption patterns (Triana, 2023). Globally, in 2019, 40% (95% uncertainty interval (UI)36–44) of children aged 6–59 months had anemia, compared to 48% (45–51) in 2000. Globally, the prevalence of anemia in non-pregnant women aged 15–49 years changed slightly between 2000 and 2019, from 31% (95% UI 28–34) to 30% (27–33), while for pregnant women aged 15–49 years it decreased from 41% (39–43) to 36% (34–39). In 2019 the prevalence of anemia in children aged 6–59 months exceeded 70% in 11 countries and exceeded 50% in all women aged 15–49 years in ten countries. Globally in all populations and in most countries and regions, the prevalence of mild anemia changed slightly, while moderate and severe anemia decreased in most populations and geographic locations, indicating a shift towards mild anemia (Stevens G.A., 2022; Khusun, H et al, 1999; Andriastuti M et al, 2020). The incidence of anemia in Indonesia is still quite high (Timan, I et al, 2002). Based on the 2018 Riskesdas data, the prevalence of anemia in adolescents is 32%, meaning that 3-4 out of 10 adolescents suffer from anemia Ministry of Health of the Republic of Indonesia, (2018) The prevalence rate of anemia in adolescents aged 15-24 years is 32%, meaning that it is estimated that 3-4 adolescents out of a total of 10 adolescents suffer from anemia (West Papua Health Office, 2019). The results of the study on young women at SMA YPK Immanuel Manokwari, especially class XI IPA, out of 23 respondents, the majority of respondents who had anemia had sufficient knowledge, amounted to 9 respondents (39.13%) and the lowest was respondents with good knowledge who experienced anemia, 2 respondents Rismawanti E.D., (2022). Pregnant women's knowledge of anemia before being given health education using leaflets was 23.3%. There was a change in the level of knowledge of pregnant women after being given Health Education with leaflet media with a p value of 0.000 <0.05 of 80%. So it can be concluded that there is an influence of media leaflets in health education on pregnant women's knowledge about anemia at the Saigon Pontianak Fajrin (2021). The average score in the leaflet group was originally 69.5, increasing to 90 with a standard deviation of 13.6 during the pre-test and 12.2 during the post-test. The lowest score in the leaflet group during the pre test was 46 and did not increase during the post test (score 46). Meanwhile, the highest score in the leaflet group experienced an increase from 93 during the pre-test to 100 during the post-test. This is in line with the results of previous research which showed that there was an increase in the average knowledge score before (score 59.42) and after (score 67.28) giving leaflets according to (Hannanti, Ilmi and Syah, 2021). Based on a preliminary study conducted by researchers at SMP Negeri 08 Prafi, it was found that of 16 teenagers whose HB levels were checked, 7 people had anemia and based on the results of interviews with teenagers, it was found that 10 teenagers did not take blood supplement tablets regularly and did not complete this because the teenagers did not understand the dangers of anemia and the importance of blood supplement tablets for the fulfillment of red blood cells in adolescents. By looking at the background above, the author is interested in conducting research with the title The influence of leaflet media on the knowledge of female students at of Prafi 08 Public Middle School about anemia.

2 METHODS

This research method uses quasi experiments with types the design used in this research was one group pre test - post test with a research design using a measurement of adolescent girls' knowledge carried out before treatment and then given a post test questionnaire after being given treatment. The population in

this study was female students in class IX of Prafi 08 Public Middle School, with a total of 41 female female students. The sample criteria set by the researcher are inclusion criteria and exclusion criteria. The inclusion criteria used in this study were young women who had menstruated and received blood supplement tablets. The exclusion criteria in this study were respondents who were not willing to fill out the questionnaire using the Pre-test knowledge technique before being given counseling about anemia, blood-enhancing tablets, then the researcher provided counseling using liftlet media with the title anemia, and blood-increasing tablets, as a post-test evaluation was carried out. at the end of the activity. Research instruments are the tools used for data collection. The instruments that will be used in this research are laboratory tests for Hb levels using easy touch and pre-post test questionnaires regarding anemia knowledge.

3 RESULTS

The characteristics of the respondents showed that the majority of respondents were aged 14 -15 years, namely 15 years old as many as 29 respondents (70.73%) and aged 14 years as many as 12 respondents (29.27%) with Hb levels > 12g/dl as many as 12 respondents (29.27 %) and Hb levels < 12g/dl as many as 29 respondents (70.73%) while 8 respondents who were menstruating (19.52%) and not menstruating were 33 respondents (80.48%) only 1 respondent (2 .44%), who consumed blood supplement tablets left with 7 tablets and as many as 22 respondents (53.65%) left with 10 tablets. Judging from the level of knowledge of respondents before being given health education using leaflet media, it has an average value of 68.78049, median 75, SD 16.78049 with the lowest value of 30 and the highest value of 90, the level of knowledge of respondents after being given health education using leaflet media has an average value of 77.07317, median 85, SD 17.35568 with the lowest value 30 and the highest value 100.

Table 1. Respondent Characteristic Distribution by Age

Age characteristic	**Frequency**	**Percentage (%)**
14 y.o	12	29,27%
15 y.o	29	70,73%
Total	41	100%

Table 2. Distribution of Respondent Characteristics based on anemia

Anemia	**Frequency**	**Percentage (%)**
Hb >12 g/dl	12	29,27%
Hb <12 g/dl	29	70,73%
Total	41	100%

Table 2 shows 12 respondents with Hb levels > 12g/dl and 29 respondents with Hb levels <12g/dl.

Table 3. Respondents' Characteristics Based on Menstruation

Menstruation	**Frequency**	**Percentage (%)**
Currently menstruating	8	19,52%
Not menstruating	33	80,48%
Total	23	100%

Table 3, it is known that there were 8 respondents (19.52%) who were menstruating and 33 respondents (80.48%) who were not menstruating.

Table 4. Respondent Characteristics Based on Fe Tablets

Fe tablet	**Frequency**	**Percentage(%)**
Remaining 2	1	2,44%
Remaining 4	1	2,44%
Remaining 7	7	17,07%
Remaining 8	9	21,96%
Remaining 9	22	53,65%
Remaining 10	1	2,44%
Total	41	100%

Table 4, it is known that there were 1 respondent (2.44%) and the remaining 10 tablets were 1 respondent (2.44%).

Table 5. Knowledge Pre-post Test

Variable	**Mean**	**Min-max**	**N**	**Median**	**SD**
Pre-Test of Knowledge	68.78049	30-90	41	75	16.78049
Post-Test of Knowledge	77.07317	30-100	41	85	17.35568

Table 5 Respondents' knowledge before being given health education using leaflet media had an average value of 68.78049, median 75, SD 16.78049 with the lowest score 30 and the highest score 90, after being given health education had an average value - mean 77.07317, median 85, SD 17.35568 with the lowest score of 30 and the highest score of 100.

Table 6. Knowledge Variable Normality Test Pre and Post test

Variable	N	W	V	Z	Z
Pre-Test of Knowledge	41	0.93805	2.496	1.928	0.02695
Post-Test of Knowledge	41	0.92935	2.846	2.205	0.01374

Table 6 The pre and post-test normality tests with Shapiro-Wilk show that the data is not normally distributed with a p-value of 0.0001 (> 0.05), so the Wilcoxon test is used.

Table 7. Knowledge wilcoxon test Pre-post Test using leaflet media

Variable	N	Median (min-max)	Z	P
Pre-test of Knowledge	41	68 (30-90)	3.822	0.0001
Post-test of Knowledge	41	77 (60-100)		

Table 7 In this study, the value of p = 0.000 was obtained. This means that there is an increase in students' relevant knowledge at Prafi 08 Public Middle School after being given treatment.

4 DISCUSSION

4.1 The level of knowledge of young women at Prafi 08 Public Middle School before being given counseling about anemia.

The level of knowledge of young women about anemia before being given health education using leaflets had an average value of 68.78049, even these young women did not understand what anemia was and the causes of anemia.

4.2 The level of knowledge of young women at Prafi 08 Public Middle School after being given counseling about anemia.

The level of knowledge of young women about anemia after being given health education using leaflets had an average value of 77.07317. The young women were even able to explain again what anemia is and the causes of anemia.

4.3 The influence of leaflet media on the knowledge of female students at Prafi 08 Public Middle School about anemia.

This research was carried out according to the planned research time after obtaining a research permit. The research was conducted at SMP Negeri 08 Prafi for 1 month from February to March with stages:

licensing, research, to data analysis, data interpretation, drawing conclusions. The subjects in this research were a population of 41 female students in class IX. The sample for this study was 41 respondents who were given health education outreach interventions about anemia through leaflets. The data collection or intervention stage was carried out for 20 days which was divided into 2 stages, namely the pre-test knowledge measurement stage before being given a leaflet about anemia and the second stage, namely the post-test measurement stage after being given a leaflet about anemia by measuring respondents' knowledge again on the 20th day. This research results from measuring knowledge before being given counseling using leaflet media was carried out by filling out questionnaires directly to 41 respondents, while for measuring knowledge after being given counseling using leaflet media to 41 respondents, filling in questionnaires was carried out in one room simultaneously. Leaflet media was distributed to all respondents as learning material and as a medium when providing education. The leaflet media given to respondents contained knowledge about anemia. From the results of research conducted at SMP Negeri 08 Prafi regarding the influence of health education using leaflet media on the knowledge of SMP Negeri 08 Prafi students about anemia, based on the results of the Wilcoxon test, a p-value = 0.0001 ($p<0.05$) was obtained. It is interpreted that there is an influence of health education through leaflet media on female students at SMP Negeri 08 Prafi. The results of other research where health education was given using leaflet media showed that there was a significant difference in knowledge before and after the media was given. In line with the results of previous research which shows that from the results of the paired t test on data before and after the leaflet group intervention, namely a p-value of 0.000 which shows that there is a significant difference in knowledge before and after the intervention regarding education for junior high school students in Grobogan Regency regarding organs. genitals (Hannanti, Ilmi and Syah, 2021).

5 CONCLUSION

Leaflets as a medium in carrying out health education on the knowledge of Prafi 08 Middle School students about anemia obtained p-value = 0.0001 ($p <0.05$) meaning that Prafi 08 Middle School students had an influence on health counseling with leaflet media. From these results it is hoped that schools and health workers can pay more attention to anemia in young women so that this case can be detected early by paying attention to the factors that influence it through effective health education so that it becomes a form of concern for anemia. young women to maintain their health.

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