

The Effect Of Giving Kelakai Leaves (*Stenocleana Palustri*) To Increase Hb Levels In Anemia Adolescents At The Al Anwar Foundation, Karang Mulya Village, Pangkalan Banteng District, West Kotawaringin Regency

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ABSTRACT

One of the factors that cause anemia in adolescents is due to a lack of intake of nutrients that are important in the formation of red blood cells, one of which is iron nutrition. This study uses the design of this study is quasi-experimental, pre-test and post test with control one group design. With the purposive sampling technique, a sample of 30 respondents was obtained which will later be divided into 2 groups, 15 experimental groups, 15 control groups, independent variables of leaf administration and dependent variable increase in HB. The Paired T test was used to determine the relationship between the two variables. The results of the study from 30 respondents were obtained that the respondents in the experimental group of 14 respondents experienced mild anemia (93.33%), moderate anemia 1 person (6.67%), and the control group experienced mild anemia of 15 respondents (100%). Analysis using the Paired T test statistical test obtained the result of $p = <0.000 < 0.05$, then H_0 was rejected and H_1 was accepted, which means that there is a relationship between giving kelakai leaves (*STENOCLEANA PALUSTRI*) to increase hb levels in anemia adolescents at the Al Anwar Foundation, Karang Mulya Village, Pangkalan Banteng District, West Kotawaringin Regency. Giving 100 grams of kelakai leaves in the form of soup is very effective in helping to increase HB levels in adolescents.

Keywords : Kelakai, HB, Adolecent

1. INTRODUCTION

Adolescence is a transition period from children to adults, in this phase there is an increase in activities in their social life. so that it affects the eating habits of adolescents. Teenagers prefer to consume fast food that is practical, but low in nutritional content. Balanced nutrition is important for adolescents, to support the growth and development of the body. Important nutrients that teenagers need such as protein, vitamins and minerals. These fast foods tend to be high in calories, fat, salt and low in protein, vitamins and minerals. Balanced nutrition is often ignored by adolescents, resulting in nutritional deficiencies such as anemia in adolescents (Kusnadi, 2021).

Based on Basic Health Research (Riskesdas) in 2020, there was an increase in anemia cases in adolescent girls from 37.1% to 48.9% of the age group of 15-30 years.

O1	X	O2
O3		O4

 that cause anemia in lack of nutrient intake that is important in the formation of red blood cells, one of which is iron (WHO, 2023) The impact of anemia on adolescents has an impact on decreasing concentration, achievement and learning ability in adolescents. In the long run, it can affect the quality of the daily life of teenagers. One of the prevention of anemia that can be done is by giving Fe tablets, but many adolescents do not like blood boosting drugs because of the side effects caused by these drugs (Safitri and Julaecha, 2022).

The results of the Hb examination conducted by the researcher on 13 female students, 6 of whom had anemia while 7 female students did not experience anemia. Based on the description above, this study is about "The Effect of Giving Kelakai Stenocleanea Palustri Leaves to Increase Hb Levels in Anemia Adolescents at the Al Anwar Foundation, Karang Mulya Village. The purpose of this study is to determine the effect of kelakai on the increase in HB levels in adolescents with anemia before and after consuming kelakai both for adolescent girls who are treated and the control group.

2. METHODS

The design of this study is quasi-experimental, pre-test and post test with control one group design. Quasi experiments are designs that do not have strict boundaries against randomization or control of the variables being studied, which is often impossible or difficult to

do. Therefore, the validity of the research is not enough to be called a real experiment so it is called a pseudo-experiment (Notoatmodjo, 2018).

This study uses 2 groups where they will be divided into 2 groups, group 1 as the control group and group 2 is given treatment. Then the two groups were given a pretest before the intervention was carried out, then for 10 days the intervention would be carried out and on the 11th day they were given a posttest again. The respondents used in this study were adolescent girls aged 15-17 years who were given vegetables for 10 days at the Al Anwar foundation, Karang Mulya Village, Pangkalan Banteng District, West Kotawaringin Regency. This study aims to determine the effect of Hb levels before and after the intervention.

The research design of the quasi-experimental one group pretest – posttest with control design of this study is as follows :

Information:

O1 : Results of Hb Level Measurement

O2 : Hb Level Measurement Results

X : Giving of kelakai leaves for 10 days

O3 : Results of Hb level measurement before intervention

O4 : Results of Hb level measurement after intervention.

3. RESULTS

Respondent characteristics

		Kriteria Anemia (Sebelum)						Total	Kriteria Anemia (Sesudah)						Total
		Eksperimen			Kontrol				Eksperimen			Kontrol			
Riwayat	Sedang	Riwayat	Sedang	Normal	Riwayat	Sedang	Normal	Riwayat	Sedang						
U	15	Erek	6	0	3	0	9	4	2	0	0	2	1	9	
m	Th	mensi	20	0%	10%	0%	30%	13,3	6,67	0%	0%	6,6	3,33	30	
a		%						3%	%			7%	%		
r															
	16	Erek	3	1	7	0	11	3	1	0	0	6	1	11	
	Th	mensi	10	3,3	23,3	0%	36,6	10%	3,33	0%	0%	20	3,33	26	
		%	10	%	3%		7%	3%	%			20	%	67	
	17	Erek	5	0	5	0	10	5	0	0	0	5	0	10	
	Th	mensi	16,67	0%	16,67%	0%	33,33	16,6	0%	0%	0%	16,6	0%	33,33	
		%	67		7%		3%	%				60		33	
T		Erek	14	1	15	0	30	12	3	0	0	13	2	30	
o		mensi	46,67	3,33	50%	0%	100	40%	10%	0%	0%	43,33	6,67	100	
a		%	67	%			0%					33	%	0%	
l															

Based on table 4.2 above, it is known that respondents who were 15 years old in the experimental group before being given treatment, namely 6 respondents (20%) experienced mild anemia, and after being given 4 respondents experienced normal Hb levels (13.33%) and 2 respondents experienced mild anemia (6.67%). At the age of 16 years before the treatment, it was found that 3 respondents (10%) and 1 respondent (3.333%) had moderate anemia. And after being given treatment, only 1

respondent experienced mild anemia (3.33%) and 3 respondents had normal Hb levels (10%). For the age of 17 years before being given treatment, as many as 5 respondents (16%) had mild anemia and after being given 5 respondents (16%) experienced changes, namely normal HB.

A. Analisis Bivariat

Uji Normal

Tests of Normality		Kolmogorov-Smirnov ^a		Shapiro-Wilk	
	Kelompok	Statistic	Df	Statistic	df
Hasil Pemeriksaan HB	Pre test Eksperimen	.175	15	.200*	15
	Post test Eksperimen	.249	15	.866	15
	Pre Test Kontrol	.251	15	.887	15
	Post test Kontrol	.119	15	.200*	15

*. This is a lower bound of the true significance.

Lilliefors Significance Correction

Berdasarkan output diatas diketahui nilai signifikansi (Sig) untuk semua data baik pada KS maupun SW itu lebih besar dari pada 0,05. Maka dapat disimpulkan bahwa data berdistribusi normal.

1. Based on the data above, it is known that the significance value for all data in both KS and SW is greater than 0.05. Therefore, it can be concluded that the research data is distributed normally.

2. Based on the above normality test, it was obtained that the research data was normally distributed so that parametric statistics (paired sample T test) could be used for the continuation of research data analysis.

Paired Samples Test		Paired Differences				Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T
					Lower	Upper	
Pair 1	Pretesteksperimen - posttesteksperimen	1.6733	.48472	.12515	-1.94176	1.40490	14
							13.370
Pair 2	Pretestkontrol - Posttestkontrol	1.1133	.36227	.09354	.91272	1.31395	14
							11.903

3. This third output is the most important output, because in this third part we will find the answer to what is the question in the case study above, namely whether or not there is an effect of giving kelakai leaves (*Stenocleana Palustri*) to increase HB levels in anemia adolescents at the Al-Anwar foundation, Karang Mulya village, Pangkalan Banteng district, West Kotawaringin Regency.

4. Based on the output of pair 1, a sig(2-tailed) value of $<0.001 < 0.05$ was obtained, so it can be concluded that there is a difference in the average value of HB examination results for the experimental pretest group and the posttest experiment.

4. DISCUSSION

1. To find out the level of HB levels of adolescent girls who are in the treatment group before giving kelakai leaves. Based on the results of the study on HB levels from 15 adolescent girls who were in the treatment group, it was found that 14 respondents with mild anemia with the age of 15 years 6 respondents, 16 years old 3 respondents and 17 years old 5 respondents. According to researchers, anemia can occur in adolescents aged 15-17 years because at this age it is influenced by non-optimal nutritional intake habits, improper food selection and lack of physical activity and significant physical changes, this triggers adolescents to modify foods or improper meal times. Irregular diet, knowledge of nutritional needs needed for adolescence is not enough, often procrastinates eating because they feel that the body already looks fat or consumes excess food to Getting the ideal body shape because of their hormonal growth or it can be said that puberty, which is the desire to look beautiful

2. To determine the level of HB levels of adolescent girls who are in the treatment group after giving kelakai leaves.

Based on the results of the study, the level of HB levels from 15 adolescent girls who were in the treatment group that had been given kelakai leaves for 10 days was found to be mild anemia to 3 respondents with the age of 15 years 2 respondents, 16 years old 1 respondent. and The normal hb level became 12 respondents, namely the age of 15 years 4 respondents, the age of 16 years 3 respondents, and the age of 17 years 5 respondents.

1. In the opinion of the researcher, the provision of kelakai leaves that the researcher has processed to 15 teenagers at the Al Anwar Foundation can help become a solution to increase HB levels with healthy intake and they like. Because it turns out that in the Qomariah study (2018) in this kelakai leaf it turns out to have an iron content of 3.285% or equivalent to 3285mg/100gr, and it can make the increase in HB levels increase significantly if consumed continuously. In addition, other benefits of kelakai leaves also have benefits such as being able to reduce fever, being antibacterial, being an

antioxidant, and can also help increase breast milk production in breastfeeding mothers

3. Analysis of the effect of kelakai leaves on the increase in HB levels in adolescent girls who are given treatment.

Based on the static test using the Paired T test, it was found that there was a significant influence between the administration of kelakai leaves on the increase in HB levels in anemia adolescents at the Al-Anwar foundation, Karang Mulya village, Pangkalan Banteng district, West Kotawaringin Regency.

According to the researcher's opinion, the effect of giving Kelakai leaves to adolescents with anemia at the Al Anwar Foundation proves that with the administration of 100 grams of Kelakai leaves in the form of soup given to a group of anemic adolescents who became an experiment of 15 teenagers, given at lunch is very effective in helping to increase HB levels in the remeaja, considering that before the treatment was carried out to 15 adolescent respondents who experienced anemia, The HB level of the adolescents was at the level of mild anemia of 14 respondents and 1 respondent experienced moderate anemia, and after the experiment was carried out, the HB level of the adolescents increased to Normal 12 respondents and mild anemia of 3 respondents.

4. CONCLUSION

1. Based on the results of research that has been conducted at the Al Anwar Foundation, Karang Mulya Village, Pangkalan Banteng District, West Kotawaringin Regency in December 2024 regarding the Giving of Kelakai Leaves to Increase Hb Levels in Adolescents at the Al Anwar Foundation, Karang Mulya Village, Pangkalan Banteng District, West Kotawaringin Regency using secondary data of 30 respondents with the division of two groups, 15 treatment groups and 15 control group respondents, it can be concluded as follows:
2. Based on table 4.2, it was found that adolescents with mild anemia in the treatment group amounted to 14 respondents or (93.33%), and adolescents who experienced moderate

anemia 1 respondent or (6.67%). In the control group of adolescents who experienced mild anemia, 15 respondents or (100%).

3. Based on table 4.5, it was found that adolescents who had been given kelakai leaves were 15 respondents for 10 days and re-examined on the 11th day, it was found that there was an increase in HB levels in adolescents who were given treatment, namely at the maximum value before being given treatment was found to be 10.3 and after being given an experiment the maximum value was obtained 11.80. Then at the minimum value before treatment is 8.6, after treatment the minimum value is 10.80. It was also seen in the median value before treatment of 9.8, and after treatment of 11.5.

In Table 4.3 It is shown that there is a change in the experimental group to 14 respondents who have normal HB and only 1 who has mild HB, then it is concluded that the leaves are indeed effective in helping the increase in HB in the adolescent, for 1 respondent who has mild anemia in the experimental group it is known that in the last 2 to 3 days the adolescent is experiencing mood changes so that the adolescent has a disorder of the rest pattern and this believed by researchers as one of the factors causing why Hb in adolescents does not show an increase. Then in the control group of 15 respondents in the control group experienced mild anemia and at the time of the 11th day of the examination the control group experienced a significant decrease, namely 13 respondents experienced mild anemia and 2 respondents experienced moderate anemia and after being checked, the 2 respondents said that the teenager felt tired because it had been 1 week and received sanctions to clean the mosque because there was The mistake they made so that the leadership of the pesantren gave the sanction and according to the researcher, this was also one of the facts in the decrease in Hb

levels during the 11th day of the inspection.

The analysis of the effect of kelakai leaves on the increase in HB levels in adolescent girls was given treatment based on the statistical test of the paired t sample test obtained the result $p = < 0.001 < 0.05$, then H_0 was rejected and H_a was accepted, which means that there is an effect of giving kelakai leaves on the increase of HB in anemia adolescents at the Al Anwar Foundation, Karang Mulya Village, Pangkalan Banteng District, West Kotawaringin Regency

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