

The Effect of Red Spinning Bottom on Increasing Hemoglobin Levels of Pregnant Women in Tanggabosi Village

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ABSTRACT

Anemia in pregnancy is a major health problem in developing countries with high morbidity rates in pregnant women. Average pregnancies caused by anemia in Asia estimated at 72.6%. The high prevalence of anemia in pregnant women is a problem that is being faced by the Indonesian government. Anemia often occurs due to a lack of iron content in food, very low absorption of iron from food, the presence of substances that inhibits iron absorption. Iron anemia in pregnancy is a condition in which mothers with Hb levels below 11 grams/dL in the first and third trimesters and Hb levels less than 10.5 grams /dL in pregnancy. second trimester. This study aims to determine the effect of red spinach stew on increasing hemoglobin levels in pregnant women in the village of Tanggabosi II. The research method is a Quasi Experiment with a research design. One group pre test post test design. Samples were taken using rotary sampling. The number of samples was 20 pregnant women. Data analysis using Paired T Test. The results showed $P = 0.000$ ($P < 0.05$). The conclusion is that there is an effect of red spinach stew on increasing hemoglobin levels in pregnant women.

Keywords:

Hemoglobin Levels, Pregnant Women, Red Spinach Decoction

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1. INTRODUCTION

. During pregnancy, there are many risk factors that can cause complications in pregnant women, including the occurrence of anemia in pregnant women, bleeding, abnormal weight and infection (Depkes RI, 2015). One thing to watch out for during pregnancy is anemia in pregnancy. Anemia in pregnancy is a condition of the mother with hemoglobin levels below 11 g% in the first and third trimesters or Hb levels <10,5 g% in the second trimester [8].

One of the foods to increase hemoglobin levels in the blood is red spinach stew. Red spinach is one of the alternative plants in meeting the iron needs of adolescents with anemia. also mentioned that red spinach contains carotenoids and flavonoids which is an active substance with antioxidant properties. The main type of carotenoid in red spinach is beta-carotene, while the other active substance is chlorophyll. The types of flavonoids contained in red spinach are lutein and quercetin. Quercetin is a powerful antioxidant that is able to capture superoxide free radicals and inhibit the oxidation of LDL cholesterol. [12]

Efforts to increase hemoglobin levels of pregnant women in addition to giving iron tablets, can be combined with therapy Complementary derived from herbs two of them red spinach. Iron content is widely found in red spinach which is a vegetable plant that is needed by humans to meet their daily needs. This is caused by The iron content is useful for increasing levels of hemoglobin in pregnant women so that anemia does not occur [8].

Anemia often occurs due to a lack of iron content in food, the absorption of iron from food is very high low , the presence of substances that inhibit the absorption of iron. Iron anemia in pregnancy is a condition in which mothers with Hb levels below 11 grams/dL in the first trimester and III and Hb levels less than 10.5 grams /dL in the second trimester of pregnancy [14]

According to Dalimartha [5] explains that a lot of iron is needed to supply the partum of the fetus and the placenta in the uterus and to increase the number of red blood cells for the mother. Pregnant. Data from the World Health Organization (WHO) 2017, there are 40% of maternal deaths in developing countries related to anemia in

pregnancy. Most anemia in pregnancy is caused by iron deficiency and acute bleeding, even the distance between the two with each other. Anemia in pregnancy is a major health problem in developing countries with morbidity in pregnant women. Average pregnancies caused by anemia in Asia is estimated at 72.6%. The prevalence of anemia in pregnant women is a problem that the Indonesian government is currently facing [1]

2. METHOD

This type of research is quantitative with a quasi-experimental design whose design uses the one group pretest-posttest design. This research will be conducted in the village of Tanggabosi 2, Siabu District from February 2022-August 2022. The population in this study were 20 pregnant women. The sampling technique used in this research is exhaustive sampling, total sampling is 20 people. Bivariate analysis was carried out on two variables that were suspected to be influential or correlated.

3. RESULTS AND DISCUSSION

3.1. Results

Table 1 Characteristic Description Respondents Based on Age, Education, Occupation in Tanggabosi 2 Village, Siabu District in 2022

Variable	Frequency	Percentage%
Age		
7-25 Years	3	15.0%
26-35 Years	14	70.0%
36-45 Years	10	50.0%
Education		
Elementary	1	5.0%
SLTP	5	25.0%
SLTA	10	50.0%
Diploma	3	15.0%
Bachelor	1	5.0%
IRT		
Jobs	11	55.0%
Self Employed	4	20.0%
Civil Servants	5	25.0%

Based on the results of Table 1 in terms of Mother's age is mostly 26-35 years old as many as 14 people (70.0%) and a minority aged 17-25 years as many as 3 people (15.0%). (50.1%), and the elementary school minority is 1 person.

Table 2 Average Hb Distribution of Pregnant Women Before and After Giving Red Spinach Decoction in Tanggabosi Village 2 Year 2022

Hb	N	mean	Med ian	SD	Min	max	95% C
Group							
Pre Interv ensi	20	9.85	10.00	0.489	9	11	9.62-10.0
Post Intervention	20	11.40	11.00	0.598	10	12	11.12-11.68
-							

Based on the results of table 4.2 above, it can be concluded that the pre-intervention/experimental group before being given red spinach stew was 9.85 g/dL, with a standard deviation of 0.489, the minimum value was 9 g/dL and a maximum of 11 g/dL, with a confidence level of 95% of the average Hb of pregnant women before being given red spinach stew was between 9.62-10.08 g/dL, while the post-intervention/experiment group before being given red spinach stew was 11.40 g/dL, with a standard deviation of 0.598 minimum value. 10 g/dL and a

maximum of 12 g/dL, with a 95% confidence level the average Hb of pregnant women after being given red spinach stew is between 11.12-11.68 g/dL.

Table 3 Data Normality Test

Variable	Group	N	Sig
Pregnant mother	Pre	20	0.067
	Experiment		
	Post	20	0.207
	Experiment		

normal distribution (> 0.05). the results of data analysis with the Shapiro Wilk test on the average Hb of pregnant women obtained P value = 0.067 ($P > 0.05$) and $P = 0.207$ ($P > 0.05$) which means the average weight.

a. Age

The results showed that pregnant women in the second trimester who were given red spinach stew got the results of the age group according to WHO, the majority of pregnant women in the second trimester were between 26-35 years old, which was 70.0%, because of the productive age of women to get pregnant and give birth. which has the lowest risk for the mother and babies are aged 26-35 years [8]. Age is related to anemia because if a pregnant woman who is < 20 years old is not biologically optimal, her emotions tend to be unstable, mentally immature so it's easy experience a shock that results in a lack of attention to fulfillment nutritional needs during pregnancy (Herman, 2018). This research is in line with the research conducted by [12] where from 396 respondents showed the distribution of respondents based on the age of respondents aged 35 years as many as 57 people (82.6%) and the number of risks under the age of 20 years as many as 12 (17.9%). According to the author's assumption, usually because teenagers want an ideal body, they encourage them to go on a strict diet without too much weight pay attention to nutritional balance so that when entering pregnancy with less nutritional status and pregnancy at the age of 35 years can cause anemia because it is associated with setbacks and decreased immunity as well as various diseases that affect rice at this age.

b. Education

Based on the education of the majority of respondents are senior high school, as many as 10 respondents (50.0%). As many as 25% of respondents with high school education experienced an increase in Hb levels after consuming red spinach juice because respondents obeyed the advice of researchers. The results of this study are in line with research conducted by [22] which shows education of the majority of respondents is high school ie 46.3%, experienced the incidence of anemia in her pregnancy. Research result This is also the same as the results of [3] which states the number of pregnant women who experience anemia in the majority of low education that is 74.4%. According to the researcher's assumption, the high incidence of anemia in pregnant women is caused by a lack of understanding of pregnant women about the impact of hemoglobin efficiency.

c. Occupation

Based on the occupation of the majority of respondents as housewives, as many as 11 respondents (55.0%). Mother's occupation is a factor that is indirectly related to maternal mortality. Better access to information including health information can be obtained by pregnant women who work in the formal sector. The environment can influence a person to gain experience and knowledge, both directly or indirectly. Employment can increase the income of pregnant women and reproductive health status because it raises awareness and provides new knowledge, behaviors and opportunities through interaction with other people and society [15]. This research is in line with the research conducted by [12] where Of the 396 respondents, the distribution of respondents is based on the age of respondents who are 35 years old as many as 57 people (82.6%) and the total risk under the age of 20 years as many as 12 (17.9%). According to the author's assumption, usually because teenagers want an ideal body so that encourage to go on a strict diet without pay attention to nutritional balance so that when entering pregnancy with less nutritional status and pregnancy at the age of 35 years canAnother research that supports this research is the research conducted by [14] In this study, the majority of pregnant women worked as housewives that is equal to 86.4%. According to the author's assumptions, more information can be obtained by working pregnant women. The environment can influence a person to gain experience and knowledge, both directly or indirectly. Distribution of Average Hemoglobin Levels of Pregnant Women Before and After Giving Decoction Red Spinach In Tanggabosi 2 Village, Siabu District The results showed that the average hemoglobin before the intervention was 9,85 gr/dL, with the lowest Hb level is 9gr/d/L, and the highest Hb level is 11 gr/dL while the Hb after the intervention was 11.40 gr/dL, with the lowest Hb level is 10 gr/d/L and the highest Hb level is 12 gr/dL. Other factors that cause low Hb in pregnant women is a factor of the number of children or mothers who give birth to more than one person According to the author's assumptions Several factors can cause low Hb, especially those often occurs in pregnant women, one

of which is iron deficiency, iron deficiency The main factor is low Hb because iron is a the main element in the formation of red blood cells, by Therefore, if there is little iron in the body then hemoglobin levels are low. Very important to provide a lot of food contains iron in the daily menu of arag avoid low Hb or anemia. Differences in the hemoglobin of pregnant women before and After Consuming Spinach Stew Angry in the village of Tanggabosi 2, Siabu District The average statistical test results using Paired sample t test obtained a P value of 0.000 ($P < 0.05$), so it can be concluded that there is a significant effect between Hb levels before and after the intervention. The need for Fe (iron) during pregnancy is on average close to 800 mg. Needs It consists of 300mg required for the fetus, and placenta and another 500 mg is used for increase maternal hemoglobin mass. Approximately 200 mg more to be excreted through the intestine, urine and skin. Food for pregnant women every 100 calories will provide about 8-10mg of iron. Calculation of eating 3 times with 25000 calories will make about 20-25mg iron every day. During pregnancy with the calculation of 288 days, pregnant women will produce as much as 100 mg so that the need for iron is still lacking for pregnant women [23] In line with the theory expressed by [5] it is said that the prevention or treatment of anemia (decreased Hb levels) can be done by consuming foods or vegetables that contain iron, such as red spinach. Red spinach is a high-level plant that grows in the lowlands to the mountains, besides that red spinach contains a lot of substances in it. In every 100 grams of red spinach there is 41.2Kcal of energy, 2.2 grams of protein, 0.8 grams of fat, 520 mg of calcium, 6.3 grams of carbohydrates, 2.2 grams of fiber, 62 mg of vitamin C, and iron. as much as 7 mg. Therefore, consuming this type of spinach is very suitable for daily life and prevents anemia [5]. Based on the researcher's assumption that the nutritional needs of pregnant women increase during pregnancy, these nutrients are used by both the mother and the baby. If the mother lacks these substances, pregnant women can suffer from anemia, in this case health workers can play a role in reducing the incidence of maternal anemia by providing counseling in the form of proper nutritional intake for pregnant women so that mothers do not experience anemia, increasing mother's knowledge of foods containing iron. especially high in red spinach which can be made into juice added with honey that is consumed by the mother once a day has been proven to increase Hb levels [25]

4. CONCLUSION

Average Hemoglobin level before intervention, namely Mean 9, 85 mg/dl, SD = 0.48, with a minimum hemoglobin level of 9 mg/dl, and maximum 11 mg/dl. The average hemoglobin level after the intervention was Mean 11, 40 mg/dl, SD = 0.598, with a minimum hemoglobin level of 10 mg/dl, and a maximum of 12 mg/dl.. There is an influence on the average level of Hemoglobin before and after intervention with using the Paired T-test, with $P = 0.000$ ($P < 0.05$)

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