

THE EFFECT OF RED SPINACH (*AMARANTHUS DUBIUS*) ON HEMOGLOBIN LEVELS OF POSTPARTUM MOTHER IN PONCOKUSUMO DISTRICT, MALANG REGENCY

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Abstrak

Anemia pada masa nifas merupakan lanjutan dari anemia yang diderita selama kehamilan yang menimbulkan banyak keluhan bagi ibu dan mengurangi presentasi pekerjaan, baik dalam pekerjaan rumah sehari-hari maupun dalam merawat bayi. Data Survei Kesehatan Rumah Tangga (SKRT) 2012 menyebutkan prevalensi anemia pada balita sebesar 40,5%, ibu hamil 50,5%, ibu nifas 45,1. Tujuan penelitian ini adalah untuk mengetahui pengaruh bayam merah terhadap kadar hemoglobin pada ibu nifas di Kecamatan Poncokusumo Kabupaten Malang. Desain penelitian ini adalah kuasi eksperimen dengan desain penelitian one group pretest posttest design menggunakan teknik accidental sampling sebanyak 30 orang. Data yang digunakan adalah data primer dan data sekunder. Analisis data menggunakan analisis uji t berpasangan. Hasil: Dari hasil penelitian dengan hasil uji statistik nilai Asym sig (2-tailed) sebesar 0,000 lebih kecil dari 0,05 maka dapat disimpulkan bahwa ada pengaruh bayam merah terhadap peningkatan kadar hemoglobin pada ibu nifas di Kecamatan Poncokusumo, Kabupaten Malang. Diharapkan dapat mengaktifkan ibu nifas dengan bekerjasama dengan bidan setempat untuk mendorong ibu nifas agar mengkonsumsi bayam merah setiap hari atau makanan lain yang dapat meningkatkan kadar hemoglobin.

Kata Kunci : Sayur Bayam Merah, Peningkatan Kadar Hemoglobin, Ibu Nifas

Abstract

Anemia in the puerperium is a continuation of anemia suffered during pregnancy, which causes many complaints for mothers and reduces work presentations, both in daily homework and in caring for babies. Data from the 2012 Household Health Survey (SKRT) states that the prevalence of anemia in children under five is 40.5%, pregnant women is 50.5%, postpartum women is 45.1. The purpose of this study was to determine the effect of red spinach on hemoglobin levels in postpartum mothers in Poncokusumo District, Malang Regency. The design of this study was a quasi-experimental design using the one group pretest posttest design research using an accidental sampling technique of 30 people. The data used are primary and secondary data. The data were analyzed using the paired t test analysis. Results: From the results of the research with the statistical test results, the Asym sig (2-tailed) value of 0.000 is less than 0.05, it can be concluded that there is an effect of red spinach on increasing hemoglobin levels in postpartum mothers in Poncokusumo District, Malang Regency. It is hoped that it can activate postpartum mothers by collaborating with local midwives

to encourage postpartum mothers to consume red spinach every day or other foods that can increase hemoglobin levels.

Keywords: *Red Spinach Vegetable, Increased Hemoglobin Level, Postpartum Mother*

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1. Introduction

Anemia is a medical term used to describe the condition of the body that has low hemoglobin levels. Hemoglobin is a carrier of oxygen and carbon dioxide which is very important for the function of the body's cells as a whole. Hemoglobin is found in red blood cells, so hemoglobin levels are also related to the number and levels of red blood cells. In conditions of anemia, red blood cells are unable to carry oxygen in sufficient quantities because they have low hemoglobin, so the body will tire easily.^[1-3]

Data from the 2012 Household Health Survey (SKRT) states that the prevalence of anemia in children under five is 40.5%, pregnant women is 50.5%, postpartum women is 45.1.2 The effect of anemia during the puerperium is the occurrence of uterine subinvolution which is one of the causes the emergence of postpartum bleeding, facilitates puerperal infection, reduced milk production. 3 According to iron reserves in the body of pregnant women will be depleted at the end of pregnancy. To keep this stock from being depleted and to prevent shortages, pregnant women are recommended to consume a supplement of 30-60 mg, starting from the 12th week of pregnancy

which is continued until 3 months post-partum, it needs to be given every day 4.^[4,5]

Anemia in the puerperium is a continuation of anemia suffered during pregnancy, which causes many complaints for mothers and reduces work presentations, both in daily homework and in caring for babies⁵. Anemia in puerperal (post-partum) women is also common in around 10% (Ministry of Nutrition and Public Health, 2013). Factors that influence anemia during the puerperium are labor with bleeding, pregnant women with anemia, poor nutrition, viral and bacterial diseases.^[6-8]

Foods that contain iron are meat, egg yolks, beans and green vegetables. One of the green vegetables that contain Fe is spinach vegetables. Spinach is a type of plant that is usually grown for its leaves to be consumed as green vegetables. Spinach contains lots of Vitamin A, B and C. In addition, spinach contains many important mineral salts such as calcium, phosphorus and iron. Spinach contains high mineral substances, namely iron to encourage body growth and maintain health. The iron content contained by spinach is beneficial for human bodies so that spinach is very good for consumption. Spinach is very

popular in Indonesian people because it tastes good, is soft and can facilitate digestion. In addition, spinach is also easily obtained in the markets with relatively cheap price. The spinach that we usually consume comes from the type of pulled spinach, which is where the pulled spinach consists of 2 types of spinach, namely red spinach and green spinach. Red spinach and green spinach contain mineral content, including calcium (Ca) and iron (Fe). Where the Ca levels in green spinach are lower than red spinach. Green spinach contain of 267 ppm of Ca, whether red spinach has 368 ppm.^[9-12]

Based on the results of a preliminary study conducted by researchers at the Poncokusumo Health Center, data was obtained in February - June 2021, there were 569 postpartum mothers and 4 of them experienced postpartum hemorrhage. Meanwhile, based on the Poncokusumo Health Center register book, in 2021 there were 33 3rd trimester pregnant women who experienced anemia. If anemia is not resolved, it will continue during the postpartum period. Then in July 2021, observations were made on 5 postpartum mothers on the 7th day in the working area of the Poncokusumo Health Center, it was found that the results of the Hb level examination were 3 people having Hb levels 12 g/dl and 2 people having Hb levels <12 g/dl. This means that 3 people do not have anemia and 2 people have anemia. Interviews have been conducted by asking as many as 16 postpartum mothers. 11 people don't like vegetables and 5 people like vegetables. Postpartum mothers, whether they like or dislike vegetables, are not aware of oral therapy using herbs, consuming red spinach can increase hemoglobin. However, out of 5 postpartum

mothers who do not like vegetables, they believe that consuming vegetables is very beneficial for their health.

Based on the description above, the researcher wants to find a solution or alternative therapy that is easy to do and does not require expensive costs to increase Hb and prevent anemia, one of them is by consuming red spinach. Therefore, researchers are interested in researching the effect of red spinach on the hemoglobin levels of postpartum mothers in Poncokusumo, Malang Regency.

2. Method

This type of research is a quasi-experimental with the one group pretest posttest design, namely the researcher only intervenes in one group without comparison where before and after the treatment measurements or observations are made. The population of this study were postpartum mothers (0-40 days) in Poncokusumo District, as many as 30 people with accidental sampling technique. The inclusion criteria in this study were postpartum mothers 0-40 days who were willing to be respondents. Collecting research data using primary data with observation sheets to determine hemoglobin levels before and after being given red spinach. Giving red spinach for 5 days. Each time given, red spinach is given as much as 100 grams and then made into boiled vegetables. The analysis of this research was processed using a computerized system, in the form of univariate analysis and bivariate analysis using the paired samples t-test statistic test, with significance value of = 0.05.

3. Results and Discussion

Univariate Analysis

Table 1. Frequency Distribution of Respondents' Age of Postpartum Mothers in Poncokusumo, Malang Regency

Respondent's Age	f	%
< 20 years	5	16,7
20-35 years	21	70
> 35 years	4	13,3
Total	30	100 %

Based on table 1, it can be seen from 30 respondents (100%), the majority of respondents are respondents who have 20-35 years as many as 21 people (70%) and the minority of respondents are respondents who have age > 35 years as many as 4 people (13.3%) and 5 people (16.7%) had age < 20 years.

Table 2. Frequency Distribution of Respondents Based on Hemoglobin Levels of Postpartum Mothers Before and After Giving Red Spinach Vegetables in Poncokusumo District, Malang Regency

Changes in Hemoglobin Levels	Before		After	
	f	%	f	%
Low	21	70	12	40
Normal	9	30	18	60
Total	30	100	30	100

Based on table 2 it can be seen from 30 respondents (100%), before being given red spinach the majority of respondents were respondents who had low hemoglobin levels as many as 21 people (70%) and the minority of respondents were respondents who had normal hemoglobin levels before being given red spinach as much as 9 people (30%). Changes after being given red spinach found that respondents experienced an

increase in hemoglobin levels as many as 18 respondents (60%) with normal hemoglobin and low hemoglobin as many as 12 respondents (40%).

Bivariate Analysis

Shapiro-Wilk Normality Test Analysis

Table 3. Shapiro-Wilk Normality Test Results Effect of Red Spinach Vegetables on Increased Hemoglobin Levels in Postpartum Mothers in Poncokusumo District, Malang Regency

Hemoglobin levels	Shapiro Wilk Sign
Before being given Red Spinach	0.001
After being given Red Spinach	0.079

The results of table 3. The results of normality of data with Shapiro-wilk by comparing the probability value of a significant level of 0.05, the data obtained before being given red spinach was normally distributed because the asymp sig value was 0.001 < from 0.05 and the data after being given red spinach was normally distributed. Because the value of asymp sig 0.079 > of 0.05.

Analysis of Paired Samples T-Test

Table 4. Test Results Paired Samples T-Test The Effect of Red Spinach Vegetables on Increased Levels of Hemoglobin in postpartum mothers in Poncokusumo District, Malang Regency

Hemoglobin levels	Paired Samples T-Test Sig (2-tailed)
Hemoglobin Level Before-After Treatment	0.000
Hemoglobin Level	

Based on table 4, it can be seen that in the table above there is an Asym sig (2tailed) value of 0.000 which is smaller than 0.05, it can be concluded that there is an effect of red spinach on increasing hemoglobin levels in postpartum mothers in Poncokusumo District, Malang Regency.

Red spinach is one type of alternative medicinal plant that has an iron composition that can treat low hemoglobin levels so that hemoglobin levels can return to normal. One source of iron that comes from plant foods is red spinach which contains Ferulytyramine and 7 mg Ferrum (iron). In addition, Red Spinach also contains several substances that the body needs such as protein, fat, carbohydrates, potassium, iron, amaranthine, rutin, purines and vitamins (A, B, and C).^[13–15]

4. Conclusion

Based on the results of research and data analysis conducted on the effect of red spinach on increasing hemoglobin levels in postpartum mothers in Poncokusumo District, Malang Regency in 2021, namely there is a significant effect between giving red spinach vegetables to increasing hemoglobin levels in postpartum mothers, seen from the paired test. samples t-test where the sig- p value is 0.000 less than 0.05.

The results of this study are expected to activate postpartum mothers by collaborating with local midwives to encourage postpartum mothers to consume red spinach every day or other foods that can increase hemoglobin levels.

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