Research Article

NURSING CARE IN NN. S WITH ANEMIA THROUGH THE ADMINISTRATION OF RED SPINACH PUDDING IN SUNGAI KITANO VILLAGE, EAST MARTAPURA DISTRICT

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Abstract.

Background: Anemia is a medical condition with fewer red blood cells or haemoglobin levels than 12 grams/100 ml. Risk factors for anaemia include a deficiency of iron, vitamin B12, or folic acid, impaired absorption of nutrients, excessive bleeding, pregnancy, and chronic or autoimmune diseases that affect the production of red blood cells. **Objective:** To administer red spinach pudding to help increase haemoglobin In adolescents with anaemia. **Methods:** This study was conducted for 7 days, with red spinach pudding administered in the morning before breakfast. Blood haemoglobin levels are checked before the first day of the intervention and after the last day. **Results:** After giving red spinach pudding for 7 days, there was an increase in haemoglobin levels in the blood. The increase in haemoglobin levels occurs because red spinach pudding contains iron that is absorbed by the small intestine into the bloodstream, bound by transferrin, and carried to the bone marrow for haemoglobin synthesis. With enough iron, the bone marrow can produce healthy red blood cells, increase the blood's capacity to transport oxygen and help reduce the risk of anaemia in adolescents. **Conclusion:** Red spinach pudding therapy has a positive impact on adolescents. The examination showed that after teenagers consumed red spinach pudding in the morning before breakfast, it increased by 15 g/dl.

Keywords: Red Spinach Pudding Therapy, Adolescents, Anemia

INTRODUCTION

Anaemia is a condition in which the number of red blood cells in circulation decreases, or haemoglobin levels are below normal levels < 7 g/dl (Budiano, 2019) (Junita, 2023). Globally, two billion people suffer from iron deficiency anaemia. About 50% of anaemia cases are caused by iron deficiency. The prevalence of anaemia in adolescent girls aged 10-18 years reaches 41.5% in developing countries (Husna, 2023). Based on data from the South Kalimantan Provincial Health Office, 2018, out of 17,239 adolescent girls, 5021 people with anaemia were found. The East Martapura Health Center ranks fourth with anaemia adolescents, which is around 19.2% of teenage girls with anemia (Riskesdas, 2018). Sungai Kitano Village is one of the villages in the East Martapura Health Center area.

Treatment of anaemia in adolescents can be done through pharmacological and nonpharmacological approaches, both of which have an essential role in recovering this condition (Yunifitri, 2022). Pharmacological treatment in adolescent anaemia generally focuses on administering oral iron supplements, such as ferrous sulfate, to treat iron deficiency. Non-Nonpharmacological therapies that can be applied in

Adolescents with anaemia by consuming red spinach (Yunifitri, 2022). Nonpharmacological treatment with red spinach pudding can be considered more effective than green spinach because red spinach has a higher iron content than green spinach (Rohmi Fadhilah, 2024).

Red spinach can increase haemoglobin levels, as evidenced by a study (Rohmi Fadhilah, 2024) with the research titled "The Effectiveness of Red Spinach Pudding on Hemoglobin Levels in Adolescent Girls With Anemia", with the results of red spinach pudding being effective in increasing haemoglobin levels in adolescent girls at the Al Baaqiyaitussa'adiyyah Islamic Boarding School, West Tembilahan, Indragiri Hilir Regency. In addition, supported by a study (Widyanti, 2021) entitled "The Effectiveness of Giving Red Spinach Pudding (Amaranthus dubious) and Green Spinach Pudding (*Amaranthus gangeticus*) on Hb Levels in Adolescent Women" was obtained. The results showed a significant difference between the administration of red spinach pudding and green spinach pudding in increasing haemoglobin levels in adolescent girls.

Based on the above presentation, the researcher is interested in providing nursing care regarding anaemia in adolescents. The title is "Nursing Care for Mrs S with Anemia through the Administration of Red Spinach Pudding in Sungai Kitano Village, East Martapura District."

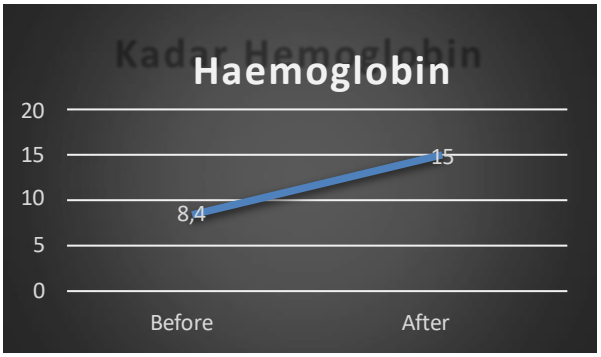
METHOD

This research method used a pre-test and post-test experimental design to evaluate the effectiveness of giving red spinach pudding in reducing anaemia levels in NN.S. Measurement of haemoglobin (HB) levels was carried out on the first day (before the intervention) and the seventh day (after the administration of the intervention for 6 consecutive days). MS.. S received treatment by consuming red spinach pudding every morning before breakfast for 7 straight days.

On the first day, the HB level of NN respondents. S is measured as an initial value of 8.4 g/dl. During the 7 days of treatment, respondents were asked to consume red spinach pudding according to the instructions given. After 7 days, on the sixth day, the respondent's HB level was measured again, and 15 g/dl was obtained. From the results of the study, it can be concluded that red spinach pudding, which is regularly given for 7 days, significantly influences the increase in haemoglobin levels in the blood of NN.S.

RESULTS AND DISCUSSION

Giving red spinach pudding to NN. S with anaemia was carried out on November 28, 2024 – December 04, 2024, at 07.00 WITA—the first day of November 28 before NN. S consumed red spinach pudding, so haemoglobin levels were checked, and on the last day of the intervention, haemoglobin levels were rechecked on December 4, 2024. Results from the examination of NN haemoglobin levels. S as follows:



Based on the diagram above, after being given red spinach pudding carried out for 7 days regularly, there is a significant influence on the increase in haemoglobin levels in the blood of NN.S. The diagram shows that for only 7 days, the increase in haemoglobin is so rapid by consuming red spinach.

According to Safitri (2022), the high iron content in red spinach is very beneficial in helping the absorption and filtration of blood in the body, which contributes to lowering blood pressure and preventing anaemia. In addition, the anthocyanins in red spinach act as antioxidants that help maintain body stability and contain iron compounds that can treat anaemia due to iron deficiency.

Endah (2020) also stated that the consumption of red spinach decoction could help overcome anaemia. In adolescent anaemia, red spinach contains various essential nutrients such as protein, fat, carbohydrates, potassium, calcium, manganese, phosphorus, iron, amaranthine, rutin, purines, niacin, as well as vitamins A, B1, B2, C, carotene, chlorophyll, and saponins (Endah, 2020). Fadhli, 2024 stated that the results of haemoglobin level checks after one to two weeks showed that red spinach juice positively affected increasing haemoglobin levels. Studies of pregnant women who consumed red spinach juice showed an average increase in haemoglobin.

Levels of 0.93 grams in two weeks.

The mechanism of red spinach pudding can help reduce anaemia from food intake, iron absorption, and increasing haemoglobin (Hb) levels in the blood. Teenagers consume red spinach pudding, and the iron in red spinach will pass through the digestive tract and be absorbed by the small intestine. Iron absorbed from the intestines will be carried into the bloodstream, where most of this iron will be bound by transferrin, an iron-carrying protein in the blood, to go to the body's bone marrow and other organs. In the bone marrow, iron is used to synthesise haemoglobin, a key component in red blood cells responsible for binding oxygen. With enough iron, the bone marrow can produce healthy red blood cells with sufficient haemoglobin content, increasing the blood's capacity to transport oxygen throughout the body. So, through this mechanism, anaemia in adolescents can decrease. (Yuliana, 2023)

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According to Rawaty (2024), The nutritional content of red spinach in pudding can change depending on the additional ingredients used in the pudding-making process, such as milk, sugar, and other thickeners. Red spinach is rich in beta-carotene, which the body converts into vitamins.
A. The cooking process and processing of spinach into pudding does not significantly reduce the vitamin A content in red spinach. The vitamin C content in spinach can be slightly reduced due to heating. However, red spinach pudding contains vitamin C. Red spinach retains its iron content even though heating slightly affects it. This iron is essential to prevent anaemia. Red spinach's calcium and magnesium content can be reduced somewhat due to processing, but it still benefits bone and dental health. Red spinach pudding still offers health benefits, although its nutritional value may be slightly reduced depending on the additives and processing methods (Rawaty, 2024).

CONCLUSION

Based on the results of the study, it can be concluded that regular administration of red spinach pudding for 7 days has a significant effect on the increase in haemoglobin levels in the blood of NN.S. Measurement results show that in a short time, namely in just 7 days, there is a relatively rapid increase in haemoglobin levels after consuming red spinach. This suggests that red spinach, rich in iron, can be an effective alternative in helping to treat anaemia and increase haemoglobin levels quickly and affordably. This significant increase provides evidence that regular consumption of red spinach can contribute to an improvement in overall blood nutritional status.

Suggestion

The advice is for clients and families to implement nursing measures independently, such as physical activity, a healthy lifestyle, and consuming red spinach pudding as an alternative therapy to increase haemoglobin levels in anaemia adolescents. Nurses are expected to be able to apply this therapy in nursing care and provide education to families as a support system to support patient recovery. The East Martapura Health Center is also expected to promote red spinach pudding as an additional therapy. At the same time, health institutions should further develop nonpharmacological therapies to support the recovery of anaemia patients more effectively.

Blessing

We give thanks to the presence of Allah SWT, who has bestowed His grace and guidance so that the activity of "Nursing Care for Mrs. S with Anemia through the Provision of Red Spinach Pudding in Sungai Kitano Village, East Martapura District" can be carried out well and smoothly.

I want to express my deepest gratitude to NN's family. S has been willing to respond to this study regarding the administration of red spinach pudding to prevent anaemia. The support and cooperation provided are meaningful for the smooth running of this research and contribute significantly to improving understanding of natural and effective ways to overcome anaemia. We appreciate the willingness of the NN family. S will participate and hope that the results of this study can be beneficial for the health of families and society in general. Thank you for your time, trust, and participation.

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