Analysis of Nursing Care in Adolescents with Anemia with the Application of Monitoring and Education Interventions for Giving Blood Added Tablets at Teluk Dalam Health Center Banjarmasin

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Abstract

Young women, who tend to become mothers will be more affected by anemia because they tend to get pregnant and give birth. Blood supplement tablet supplementation program for young women, one of the government's efforts to ensure adequate iron intake to prevent anemia. Before administering Blood Supplement Tablets, adolescents should be given information about anemia in Blood Supplement Tablets, as well as guidance or supervision during the administration of Blood Supplement Tablets. The purpose of this research is to describe the results of monitoring and educating the administration of blood supplement tablets. The writing method is in the form of case studies on adolescents with anemia. The results of this case study showed an increase in hemoglobin and hematocrit levels. The control card is filled in according to the date of taking the medicine and signed by the parents. With this case study, it is hoped that nursing interventions related to the method of increasing hemoglobin levels in young women with anemia can be developed.

Keywords: Anemia, Education, Monitoring, Administering Blood Supplement Tablets

INTRODUCTION

The problem of micronutrient nutrition is one of the problems faced by Indonesian youth. One of these problems is related to Anemia, which is mostly caused by iron deficiency and affects around 12% of male adolescents and 23% of female adolescents. Teenage girls are more likely to experience anemia than boys (Ministry of Health RI, 2018). Adolescence requires a higher intake of nutrients such as iron for growth and development, which is why this problem arises. In addition, young women often limit their food intake and avoid large meals, such as following a vegetarian diet, because of their strong concern for their body shape (Almatsier, 2016).

Adolescents with anemia may experience problems with the immune system, concentration, academic performance, fitness and productivity. In addition, young women, who tend to become mothers and increase the risk of maternal death, premature birth, and low birth weight babies (LBW), will be more affected by anemia because they tend to get pregnant and give birth. (Ministry of Health RI, 2018). WHO data in 2019, globally the incidence of anemia in women of reproductive age (age 15-49 years) is 29.9% (95% UI 27%, 32.8%), the prevalence in women who are not pregnant is 29.6% (95 % UI 26.6%, 32.5%) and in pregnant women as much as 36.5% (95% UI 34%, 39.1%). Judging from the results of this data overview, the incidence of anemia in Indonesia is always increasing every year. Based on Riskesdas data in 2018 the incidence of anemia in Indonesia aged 15-24 years was 32.0%.

From data from the South Kalimantan Provincial Health Office, the incidence of anemia in young women in South Kalimantan Province in 2018 was 52.98% and in Banjarmasin City it was 15.55%. Whereas in 2019 the anemia of female adolescents in South Kalimantan Province
was 42.45% and in the City of Banjarmasin it was 43.80%. Meanwhile, anemia data for female adolescents at the Teluk Dalam Health Center in 2022 was 32.7% (age 11-14 years was 23.6% and aged 15-17 years was 9.1%).

Anemia is a condition where the hemoglobin (Hb) level of red blood cells is lower than it should be. For young women who are considered anemic if the hemoglobin level is less than 12 gr/dl. In order to carry out its function, hemoglobin binds oxygen and delivers oxygen to all body tissue cells including muscles and brain. Typical symptoms of anemia, namely lethargy, fatigue, tiredness, weakness, and fatigue, are commonly referred to or known as 5 L. (Ministry of Health RI, 2020).

Based on the signs and symptoms and the pathophysiology, nursing problems that may arise in adolescents with anemia include ineffective tissue perfusion, activity intolerance, fatigue, knowledge deficit and the risk of gastrointestinal motility dysfunction. One of the nursing problems that often arises in cases of anemia is ineffective tissue perfusion. This is evidenced by a case study conducted by Amelia, et al (2021) in an. A, who is 10 years old with anemia in the Children's Room of RSUD Dr. Soedarso Pontianak, one of the problems that arose was ineffective tissue perfusion. The nursing intervention carried out in this case study was blood transfusion (I.02099), after the nursing action the hemoglobin level increased and the condition improved.

Anemia that does not get proper treatment will have an impact on cognitive impairment, cardiovascular comorbidities, increased mortality, and long-term care if it is accompanied by other medical conditions such as kidney failure, cancer, and heart failure (Wouters et al., 2019 in Zulqifni and Suandika, 2022). This is closely related to ineffective tissue perfusion so that the organs in the body are not able to work optimally due to a lack of oxygen supply caused by a decrease in the concentration of hemoglobin in the blood which functions as a medium for oxygen transport.

In addition to the intervention of giving blood transfusions as a curative measure, one of the government's efforts to ensure Rematri (adolescent girls) get enough iron to prevent anemia is to provide iron supplements. Anemia can be avoided and the body's iron reserves can be increased by taking iron tablets at the right dose. Through UKS/M, Blood Supplement Tablets are offered to young women aged 12 to 18 in educational institutions (junior high school and high school or equivalent). One of the specific interventions to reduce stunting is the Supplemental Blood Tablet supplementation program for young women starting in 2014. One of the special interventions to reduce stunting is the Supplemental Blood Tablet supplementation program for female adolescents began in 2014. For young women, one of the government's efforts to ensure adequate iron intake to prevent anemia is iron supplementation. The schedule for giving Blood Supplement Tablets as a preventive dose is by taking one Blood Supplement Tablet every week (Ministry of Health RI, 2018).

The research was conducted in the age group ≤ 13 years to ≥ 15 years with 328 respondents, it was found that 125 people (38.1%) had strong behavioral control and the intention to comply with taking Blood Supplement Tablets regularly once a week throughout the year with true (Quraini, et al, 2020). Another study was conducted on young women in the age group of 15-19 years as many as 542 people as many as 48.9% consumed Blood Supplement Tablets and the majority of the frequency of Blood Supplement Tablet consumption <4 times a month was 31.1% (Rahayuningtyas, et al, 2021).

Based on Riskesdas data for 2018, the proportion of Blood Supplement Tablets obtained and drunk by young women aged 10-19 years in the last 12 months or as many as ≥ 52 items. In Indonesia, 2.9% received Blood Supplement Tablets from health facilities and drank 1.8%, 3.7% obtained from schools and drank 1.4% and 4.0% took their own initiative and drank as
much as 3.2%. Whereas in South Kalimantan, 6.6% received blood supplement tablets from health facilities and drank 3.7%, 7.2% obtained from schools and drank 2.3% and 16.8% took their own initiative and drink as much as 16.8%.

Before administering Blood Supplement Tablets, it is better if adolescents are given information about anemia and Blood Supplement Tablets, and even better, guidance or supervision is given during the administration of Blood Supplement Tablets. This is in line with the research conducted by Komalasari and Mamat (2020) regarding mentoring and monitoring in administering Blood Supplement Tablets which has proven to be effective in overcoming failure to consume Blood Supplement Tablets. With mentoring and monitoring, it is not only knowledge that can be given, such as how to drink blood supplement tablets that are correct and effective or the benefits of drinking blood supplement tablets, but can also solve the main problem why teenagers are unable to drink them.

A case study conducted in providing anemia nursing care to young women in families with the application of the HEMA Coach intervention model (Health Education, Behavior Modification and Coaching). The results of nursing interventions show an increase in family knowledge and skills in dealing with anemia in young women. There was an increase in Hb and BMI values. There was an increase in family independence and a decrease in the incidence of anemia (Rahmawati, 2018). Adolescent girls usually have a positive perception of taking iron tablets, so that a strong intention is formed to take iron tablets to avoid the risk of anemia. Of the various factors that influence adherence to taking Blood Supplement Tablets, the high level of support provided by the family can form a normative belief.

In consuming Blood Supplement Tablets, support from the family is very important. Remembering the schedule for taking Blood Supplement Tablets and giving food containing iron tablets are examples of family support. Adherence of young women in consuming iron supplements regularly can be influenced by family support and monitoring. In young women, there is a correlation between knowledge and adherence to taking iron tablets. Level of education. Likewise, young women are more likely to take iron tablets if their families provide good support. (Samputri and Heridiani, 2022). Based on this, the researcher is interested in presenting an overview of the analysis of nursing care for adolescents with anemia with the application of monitoring and educational interventions for the administration of blood supplement tablets at the Teluk Dalam Health Center in Banjarmasin.

RESEARCH METHODS
This final scientific work is made using a design in the form of a case study with a single case. The case study method is to collect data, analyze data and draw data conclusions. Case studies are detailed studies of an individual or a social unit over a certain period of time, or research on phenomena in real-life contexts (Hidayat, 2003). Case study is research that analyzes from various perspectives (multi-perspectival analysis).

RESEARCH RESULTS AND DISCUSSION
Analysis of Nursing Care for Young Women with Anemia Problems
The study was conducted on Wednesday, 16 November 2022 at 10.00 WITA for An. R, 17 years old, female with the main complaint being dizziness and pale skin, nails and eyes. Complaints that the client has had since a week ago. The client had never consumed Blood Supplement Tablets independently or from a program held at school. The client's parents do not really know about the problem of anemia and blood supplement tablets. Complaints at the time of assessment the client complains of dizziness and pale skin, pale nails, and pale client's eyes. The results of a thorough physical examination, the general condition of the client looks a little weak, composure awareness. Vital signs include blood pressure: 100/70 mmHg,
pulse: 78 x/minute, temperature: 36.50 °C and respiration: 22 x/minute. Weight 45 kg and height 154 cm. BMI based on age is 18.98 (normal). BMI based on BB based on TB is 19 (normal). CRT (Capillary Refill Time) < 3 seconds. Supporting examinations, namely laboratory tests with hemoglobin 10.9 gr/dl (normal: 11.7-15.5 gr/dl), hematocrit 33% (normal: 36-44%).

Adolescent girls are more prone to anemia than boys (Ministry of Health RI, 2018). Teenagers need a higher intake of nutrients such as iron for growth and development, which is why this problem arises. In addition, young women often limit their food intake and avoid eating a lot, such as following a vegetarian diet, because of their strong concern for their body shape (Almatsier, 2016). In addition to limiting food, young women also experience menstruation. The consequence of menstruation in young women will experience a loss of iron up to twice the amount released by young men. Therefore, the need for iron for female adolescents is three times greater than for male adolescents to restore the body's condition to its original state to replace the blood that comes out during menstruation (Sulistyawati and Nurjannah, 2022).

The causes of anemia are generally due to a lack of knowledge about anemia, iron deficiency, folic acid, vitamin B12 and vitamin A. In addition, poor sleep patterns are also one of the causes of anemia (Aulya, et al, 2022). The incidence of anemia in adolescents has a negative impact on decreased immunity, concentration, learning achievement, adolescent fitness and productivity. In addition, specifically anemia experienced by young women will have a more serious impact, considering they are prospective mothers who will become pregnant and give birth to a baby, thus increasing the risk of maternal death, premature birth and low birth weight (LBW) babies (Ministry of Health RI, 2018).

Supplementation of Blood Supplement Tablets in Rematri is one of the government’s efforts to meet iron intake to prevent anemia. The program for giving Blood Supplement Tablets for preventive doses is by giving one Blood Supplement Tablet every week (Republic of Indonesia's Ministry of Health, 2018). Research by Tonasih, et al (2019) states that the administration of Blood Supplement Tablets shows an increase in hemoglobin levels before and after administration so this proves that Blood Supplement Tablets are effective in increasing hemoglobin levels.

Compliance in consuming blood tablets is expected to prepare young women in a state of optimal reproductive health and not in the anemia category which can affect the health of young women when they enter their reproductive period and have an impact on increasing cases of stunting. Cross-sectoral joint efforts are needed to support successful adherence to consuming Blood Supplement Tablets in young women and find solutions to factors that can make Rheumatism non-adherent in consuming Blood Supplement Tablets (Anita, 2022). While the factors related to female adolescent compliance in consuming Blood Supplement Tablets in Indonesia are teacher support, attitude, culture, family support, perceived threat, perceived benefit, perceived barrier, and self-efficacy. (Amir and Djokosujono, 2019).

**Analysis of the Implementation of Monitoring and Education Interventions for Giving Blood Supplement Tablets**

The results of the data analysis show that the client has risk factors that can cause a decrease in hemoglobin levels, so interventions are needed to increase hemoglobin levels. The author chose monitoring using the blood supplement drinking control card and education on giving blood supplement tablets to be a superior intervention because this method can later be used as a reference in implementing the government’s blood supplement tablet administration program. The tools used are quite easy to make, namely monitoring sheets and educational materials such as leaflets. For the use of monitoring sheets, this method can be
used as a reference for assessing adherence in consuming Blood Supplement Tablets. While Education, this method can provide knowledge and understanding of clients and families about Anemia and Blood Supplement Tablets. Besides that, education can also be a medium in motivating families to support the process of care and treatment carried out at home.

Knowledge and adherence to consuming blood supplement tablets are closely related to the incidence of anemia in young women. Knowledge of good nutrition will have an impact on a good teenage diet and adherence to taking Blood Supplement Tablets so as to improve the condition/prevalence of anemia in young women (Putri, et al, 2017). Nutrition education has several advantages, including affordable, appropriate, has no side effects, and is sustainable through increased knowledge that can have an impact on changes in eating behavior. Various kinds of media can be used to provide education or knowledge to clients or families about anemia and Blood Supplement Tablets. Education about anemia and blood-supplementing tablets in adolescents using video media and online leaflets can increase adolescents’ knowledge about anemia and blood-supplementing tablets (Puspikawati, et al, 2021).

Research conducted by Nuradiani, et al (2017) states that the use of a monitoring card in the form of a leaflet with the addition of a teacher's signature and information about anemia and Blood Supplement Tablets can increase adherence to Blood Supplement Tablet consumption in young women. In addition to knowledge and support from teachers for teenage girls at school, family support, especially parents, plays an important role in adherence to taking Blood Supplement Tablets. This support is needed to foster positive beliefs and perceptions among young women about the importance of taking Blood Supplement Tablets in order to prevent the risk of anemia. Family support in reminding girls to take Blood Supplement Tablets as well as monitoring can affect young women's compliance in taking Blood Supplement Tablets regularly (Samputri and Herdiani, 2022).

Another study conducted by Mamat and Komalasari, 2020 states that mentoring and monitoring the administration of Blood Supplement Tablets is an effective experiment on consumption behavior of Blood Supplement Tablets. Mentoring for overcoming matters related to the causes of failure in consumption, as evidenced by the 11 causes of failure in consumption in terms of the percentage reduction in numbers. The level of consumption of Fe tablets can increase Hb levels more than those who consume less. The role of officers, school principals and parents is very helpful in increasing the consumption of Fe tablets through monitoring and mentoring in their respective places.

**CONCLUSION**

From the results of the study on An. R found signs and symptoms of anemia. The client had never consumed Blood Supplement Tablets independently or from a program held at school. The client's parents do not really know about the problem of anemia and blood supplement tablets. Laboratory examination results with a hemoglobin of 10.9 gr/dL and a hematocrit of 33%. The main nursing diagnoses are ineffective peripheral perfusion (D.0009) and knowledge deficit (D.0111). The leading nursing interventions carried out are monitoring using a control card for taking Blood Supplement Tablets and education on giving Blood Supplement Tablets. The implementation was carried out according to standard operating procedures for providing education for 1 day (45 minutes) and monitoring the administration of Blood Supplement Tablets for 4 weeks. The evaluation was carried out for 4 weeks, November 16 to December 14, 2022, it was found that client data had no more complaints. The results of the hemoglobin examination were 12.1 g/dL and a hematocrit of 36%. Clients and families understand about anemia and Blood Add Tablets. The medication control card is filled in according to the date of taking the medication and signed by the parent or guardian. The documentation was carried out for 4 weeks, November 16 to December 14, 2022. There
was an increase in hemoglobin levels from 10.9 g/dl to 12.1 g/dl, then the hematocrit level from 33% to 36%. The control card for taking medication is filled according to the date of taking the medication and signed by the parent or guardian and the results of the hemoglobin check before and after the intervention are printed.

Suggestions for patients and families: Increase patient and family knowledge and insight to prepare for treatment of anemia young women and adherence to consumption of Blood Supplement Tablets. For the puskesmas, the results of this paper can be a reference for nurses at the puskesmas to monitor and educate the administration of blood supplement tablets using control cards for drinking blood supplement tablets and health education to families. For educational institutions, the results of this study are used as input as an evidence base for nursing in carrying out nursing for young women with anemia. For further authors, add knowledge and experience about increasing hemoglobin levels and can be developed for further research related to methods for increasing hemoglobin levels in young women with anemia.

BIBLIOGRAPHY


