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Implementation of ATIKA (Ati, Telur dan Ikan) consumption education on increasing hemoglobin levels in pregnant women

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ABSTRACT

Consuming animal protein, especially ATIKA (Ati, Telur dan Ikan) is an effort to increase hemoglobin levels in pregnant women. This study analyzes the implementation of ATIKA (Ati, Telur dan Ikan) observations on increasing HB levels in pregnant women at the UPTD of the Sidomulyo Health Center. Experimental research design with a pre-experimental study, one group pre-test, post-test. Population of 20 pregnant women with total sampling technique. Data collection by observation. The results of the study showed that the average hemoglobin level before consuming ATIKA was 9.6 gr/dl, while after consuming ATIKA for 3 weeks the average Hb was 10.6 gr/dl. The analysis test uses the Wilcoxson sing test with a significance of 0.001 < α = 0.05. There is an effect of implementing Atika consumption on increasing the Hb levels of pregnant women. Regular consumption of Atika in pregnant women can increase Hb and prevent pregnancy anemia

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1. Introduction

Based on basic health research data (Riskesdas) in 2018, the prevalence of pregnant women experiencing anemia in Indonesia was 48.9%, this has increased from the results of Riskesdas in 2013, namely 37.1%. The prevalence of anemia in pregnant women in East Java 2019 Fe 1 was 97.72% and those receiving Fe 3 was 95%. At the Sidomulyo Community Health Center UPTD in 2020 it was 14.9%, in 2021 it was 17.8% and until November 2022 it was 12.2%.(Riskesdas, 2021).

Data from the Sidomulyo Community Health Center for 2021 shows that the number of anemia cases at the Sidomulyo Community Health Center is 17.8%. (Sidomulyo Health Center Health Profile, 2021). The Sidomulyo Health Center Health Report from January to November 2022 stated that the number of cases of anemic pregnant women was 12.2%, cases of LBW births with anemic pregnant women were 5.6%. (Dinas Kesehatan Kabupaten Kediri, 2021).

Anemia in pregnant women can occur due to an unbalanced increase in maternal blood volume between the increase in blood cells (around 11-20%) and the increase in blood plasma (around 30-40%). This causes blood thinning during pregnancy (hemodilution) which is often referred to as physiological anemia. Anemia has a negative effect on fetal growth and development. (Anggreani, 2014).

Based on the data above, anemia during pregnancy is one of the nutritional problems in Indonesia that must be treated seriously. One of the factors related to the incidence of anemia during

pregnancy is the compliance of pregnant women in consuming ATIKA (Ati, Eggs and Fish). (Wulansari et al., 2022) (Asrumi et al., 2023). In efforts to overcome anemia in pregnant women, nutrition is one potential program to improve the quality of human resources. There are many programs that can be provided to increase the compliance of pregnant women when consuming ATIKA (Ati, Telur dan Ikan) to avoid anemia.

Thus, it is necessary to provide information about the consumption of ATIKA (Ati, Telur dan Ikan) for pregnant women through education using media (leaflets). Providing information to pregnant women can be done through education or health education. (Muyassaroh & Fatmayanti, 2021) The research results showed that there were differences in the increase in knowledge and attitudes of pregnant women after being given counseling using the media. This is similar to other research that health promotion has an effect on increasing the ability of pregnant women to detect danger signs. (Retnaningtyas et al., 2020).

Improving the nutrition and health of pregnant women is closely related to the level of education, knowledge and attitudes in meeting nutritional needs during pregnancy. Insufficient knowledge and inappropriate practices are barriers to improving nutrition. In general, people are not aware of the importance of nutrition during pregnancy and the first two years of life. Women often do not realize the importance of their own nutrition. (Venkaiah, K., et al, 2020).

The results of a preliminary study conducted by researchers using interviews and assistance from regional midwives together with posyandu cadres on 10 anemic pregnant women showed that 6 pregnant women (60%) were anemic due to economic factors that had an impact on the ability of pregnant women to fulfill their needs for high-nutrient foodstuffs. iron (Fe) in the family diet, especially animal protein (Ati, Eggs, Fish), apart from that, low knowledge is also one of the causes of anemia in pregnant women by 40% (4 Pregnant Women). Some pregnant women have never received education about the importance of consuming Atika (Ati, Eggs and Fish). Efforts that have been made to deal with the incidence of anemia in pregnant women are through education.

Based on the background described, the researcher is interested in knowing "Implementation of observations of ATIKA (Ati, Telur dan Ikan) on increasing hemoglobin levels in pregnant women at the UPTD Puskesmas Sidomulyo". The research aims to provide education to pregnant women and practice their own dosage of food sources of nutrients, especially protein sources to prevent anemia problems.

2. Research Method

This research uses an experimental quantitative research design with a pre-experimental one group pretest posttest study, a research sample of 20 respondents, using a total population sampling technique. The research instrument uses an observation sheet. Data analysis was tested using the Wilcoxon sign rank statistical test.

3. Resulth and Discussions

This research activity was carried out on 20 pregnant women with the following characteristics of respondents:

Tabel 1
Distribution of Respondent Characteristics

Characteristik	Frequency	Percentage (%)
Age		
20 - 30	17	85
30 - 35	1	5
> 35	2	10
Work		
Housewife	14	70
Private Sector Employee	2	10
Self employe	4	20
Total	20	100,00

Based on Table 1 above, it is known that the majority of respondents aged 20-30 years are 17 respondents (85%) and the majority of respondents work as housewives, namely 14 respondents (70%).

Tabel 2
Distribution of Average Hemoglobin Levels pre-test and post-test

Group	N	Min	Max	Mean	P
Pre test	20	8,1	10,4	9,627	0,001
Post test	20	9,8	12,4	10,664	

Based on Table 2 above, it is known that Based on Table 1, it shows that the lowest pre test hemoglobin level was 8.1 gr/dL, the highest was 10.4 gr/dL and the average was 9.6 gr/dL. The lowest post test hemoglobin level was 9.8 gr/dL, the highest was 12.6 gr/dL and the average was 10.6 gr/dL. The average increase in pre-test and post-test hemoglobin levels was 1.0 gr/dL. The research results showed that the respondents' hemoglobin levels before consuming date juice were the lowest, namely 8.1 gr/dL and the highest, namely 10.4 gr/dL, an average of 9.6 gr/dL. Second trimester pregnant women with anemia occur in both primigravidas and multigravidas. This has become the government's concern, that all pregnant women need to get tablets containing iron as stipulated in Minister of Health Regulation Number 88 of 2014 setting standards for blood supplement tablets (Fe tablets/tablets containing iron) for pregnant women.. (WHO, 2012),

Iron is really needed by the body, one of which is its role in forming hemoglobin in the blood. Iron is found in foods such as meat, chicken, fish, eggs and nuts, green vegetables and several types of fruit. The highest levels of iron are found in liver, fish, eggs, fish and nuts. (Anggreani, 2014).

Prevention of anemia in pregnant women includes: Consuming a more diverse or varied diet. Diversity in food consumption is needed to support the availability of iron in the body, especially ATIKA (Ati, Eggs and Fish). (Aliance, 2020) In line with research conducted by Yulistiana Evayanti (2018) regarding the effect of consuming chicken liver on increasing hemoglobin levels in pregnant women in the second trimester at the Hanura Community Health Center, Pesawaran Regency, it shows that there is an influence of consuming chicken liver on increasing hemoglobin levels in pregnant women in the second trimester. The t test results obtained p value 0.001 < (0.05). The results of the research showed that the average hemoglobin level before being given chicken liver was 9.10 gr/dl. The average hemoglobin level after being given chicken liver was 10.97 gr/dl. (Yustiana, 2018).

Pregnant women need to consume more protein than usual. The minimum protein requirement is around 60g/day. The need for animal protein is greater than the need for vegetable protein. Fish, eggs, meat and milk need to be consumed more than tofu, tempeh and nuts. This is because the structure of animal protein is easier to digest than vegetable protein.(Maria, 2019).

According to research by Reni Suheni, et al (2020) regarding the effect of giving boiled chicken eggs on increasing hemoglobin levels in pregnant women at the Walantaka Community Health Center, Serang City, it shows that there was an increase of 1.366 mg/dl in the experimental group, and 0.56 mg/dl in the control group, This means that there is an effect of giving boiled chicken eggs on increasing hemoglobin levels in pregnant women. (Suheni et al., 2020).

According to researchers' assumptions, the correct consumption patterns of pregnant women during pregnancy greatly influence hemoglobin levels. Hemoglobin levels will decrease because pregnant women experience blood thinning (hemodelution). Paying attention to iron intake, especially from animal protein sources, namely ATIKA (Ati, Telur dan Ikan) must be a top priority during pregnancy. Because iron plays a very important role in the formation of blood hemoglobin.

Tabel 3
Distribution of hemoglobin levels after implementation of ATIKA consumption

Hemoglobin Levels	Frequency	Percentage (%)
Increase	18	90
Not Increase	2	10
Total	20	100.0

Research results in table 3 showed an increase in hemoglobin levels in pregnant women after re-checking at the end of the study (3 weeks), namely 18 respondents (90%). The fact is that the consumption pattern of ATIKA (Ati, Telur dan Ikan) greatly influences the hemoglobin levels in pregnant women. Women need more iron than men because menstruation occurs with bleeding of 50 to 80 cc every month and iron loss of 30-40 mg. (Hudrul, 2019). (Venkaiah, K., et al, 2020). Besides that, pregnancy requires additional iron to increase the number of red blood cells in the fetus and placenta. The more frequently a woman experiences pregnancy and childbirth, the more iron she loses and the more anemic she will become.

In each pregnancy, the iron requirement required is 900 mg Fe, namely an increase in maternal blood cells of 500 mg Fe, found in the placenta 300 mg Fe and for fetal blood 100 mg Fe. If Fe reserves are minimal, then each pregnancy depletes the body's Fe supply and will ultimately cause anemia in pregnancy. Iron requirements during the first trimester are relatively small, namely 0.8 mg/day, but increase rapidly during the second and third trimesters to 6.3 mg/day. (Medicine, 2018)

Part of the increase in Fe needs can be met by iron stores and an additive increase in the percentage of Fe absorbed, but if iron is low or not at all and the iron absorbed from food is very little, additional iron supplements are needed to meet the body's iron needs. during pregnancy. (Simbolon et al., 2019)

Anemia occurs in 1/3 of women during the third trimester of pregnancy. Common causes are iron and folic acid deficiencies. The amount of blood in a pregnant woman's body increases by 20-30%, requiring an increased supply of iron. Hb examination is important during this period to detect anemia. Anemia in pregnant women greatly affects the condition of the mother and fetus during the birth process.(Kapur D, Sharma S, 2019)

According to researchers' assumptions, increasing hemoglobin (Hb) levels can be influenced by several things, starting from animal protein consumption patterns, compliance with consuming Blood Supplement Tablets (TTD) and rest patterns.

4. Conclusion

Based on the results of research carried out at the UPTD Puskesmas Sidomulyo for 20 respondents regarding the implementation of ATIKA (Ati, Telur dan Ikan) observations on increasing Hb levels, the majority of respondents' ATIKA (Ati, Telur dan Ikan) consumption levels were sufficient, namely 70%. There was an increase in hemoglobin levels for 3 (three) weeks and observations were made regarding ATIKA (Ati, Telur dan Ikan) consumption patterns by 90%. Statistical tests using the 2-tailed Significancy test resulted in $p = 0.001 < 0.05$, so H0 was rejected and H1 was accepted, which means that there is an influence of consumption of ATIKA (Ati, Telur dan Ikan) on increasing hemoglobin levels in pregnant women in the UPTD Area of the Sidomulyo Health Center. The limitation of this research is that the food menu is made by the respondents themselves and the researchers only observe. It is recommended for future researchers that the food menu be prepared by the researcher so that the menu is the same

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