Analysis of Eating Patterns and Pregnancy Distance with the Incidence of Anemia in Pregnant Women in Macanan Village, Loceret Public Health Center, Nganjuk Regency

Nita Pranita Yuniarwati*, Betty Fitriasari

Public Health Center Loceret, Nganjuk, East Java, Indonesia
*Corresponden Author: Nita Pranita Yuniarwati (nitapranita12@gmail.com)

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ABSTRACT

Background: Anemia is an event that is often experienced by pregnant women, the cause of anemia is more due to inappropriate eating patterns and risky pregnancy intervals. This study aimed to analyze the relationship between diet and pregnancy spacing with the incidence of anemia in pregnant women.

Methods: This type of research uses a cross sectional approach, the instruments used are observation sheets and questionnaire sheets, the population in this study is pregnant women who experience anemia, namely 25 people with a sample of 20 respondents using cluster random sampling technique, this study uses Chi square test analysis.

Results: This study showed that results of bivariate analysis with chi square test with a significant value of 0.000 (p < 0.05), which means that there is a relationship between eating patterns and pregnancy spacing with the incidence of anemia in pregnant women.

Conclusion: There is a relationship because the occurrence of anemia is generally caused by an unbalanced diet. This is due to the low nutritional awareness of the community, especially pregnant women, while repeated pregnancies with a short time span will cause iron reserves in the mother's body to have not been fully recovered and then again depleted for the needs of the fetus being conceived.

I. Introduction

Anemia is one of the most common nutritional disorders and is a the main nutritional problem in Indonesia (Rasmaliah, 2004). Anemia can be defined as a condition in which the level of hemoglobin (Hb) in the blood is less than normal, which is different for each age group and gender. The normal level of pregnant women is 11% (Depkes RI, 2016). Pregnant women are one of the groups prone to malnutrition, because there is an increase in nutritional needs to meet the needs of the mother and fetus. Increased nutritional needs which include the need for protein, carbohydrates, fats, vitamins meniral and water with a diet of one and a half servings more than before pregnancy and consumed during pregnancy for fetal growth, placenta, increased blood volume, enlarged mammary and increased basal metabolism. (Patimah, 2017). Lack of nutritional intake and eating patterns that do not meet balanced nutrition which includes lack of carbohydrates, calories, protein, vitamins and minerals in pregnant women have a considerable impact on the growth process of the fetus and the child to be born.
Several factors that can cause anemia in pregnancy include gravida, age, parity, education level, economic status and compliance with Fe tablet consumption and diet (Keisnawati, et al, 2015). The results of Ridayanti's research (2012), stated that pregnant women with anemia were also caused by primigravida factors. Primigravida mothers who experienced pregnancy anemia were 44.6% while multigravida mothers who experienced pregnancy anemia were 12.8%. This is because primigravida mothers do not have the experience to maintain a healthy pregnancy from previous pregnancies because this is the first time they are pregnant (Farsi, 2011). Based on the above background, the researcher is interested in taking the research title "Analysis of Diet and Pregnancy Spacing with the Incidence of Anemia in Pregnant Women in Macanan Village, Loceret Public Health Center, Nganjuk Regency".

Objective study this This study aims to determine the analysis of eating patterns and pregnancy spacing with the incidence of anemia in pregnant women in Macanan Village, Loceret Health Center, Nganjuk Regency

II. METHODS

Design used is observational analytic with approach cross sectional. The population in this study was the population in this study were all mothers pregnant in the village tiger Public health center lockeret naughty. Sample in study this that is part Mother pregnant in the village tiger Public health center lockeret Ask 20 respondents. Sample taken with use technique cluster random sampling. Data collection on research this with use sheet observation related to data on the incidence of anemia and distance pregnancy on Mother pregnant. Respondent data consist from age, occupation and education mother.

The place study implemented in the village Tiger lockeret Nganjuk as for time research on 2-20 July 2020. Procedure applied research that is Researcher give questionnaire to respondents and explain method charging, if moment respondent not yet fill in question with complete questionnaire will returned to the respondent for equipped. Researcher To do observation on mother's KMS related to HB during pregnancy and distance pregnancy before and record it on the sheet observation. The results of data collection carried out data processing with editing, coding, scoring and tabulating stages.

Statistical test used is the chi square test with assumption when mark p < or p = so researcher reject H0 which means that results study statistically is significant, which means H1 is accepted and Ho is rejected, which means there is a relationship Diet and Pregnancy Spacing with the incidence of anemia in pregnant women in the village Tiger Public health center lockeret Regency naughty. When mark p > 0.05 then H1 is rejected and Ho is accepted which means no there is connection Diet and Pregnancy Spacing with the incidence of anemia in pregnant women in the village Tiger Public health center lockeret Regency naughty.

III. RESULTS

General Data of Respondents

Table 1. Frequency Distribution of Respondents Based on General Data Pregnant Women in Loceret Nganjuk Moon Tiger Village June 2020

<table>
<thead>
<tr>
<th>No</th>
<th>General Data</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25-30 years</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>31-35 years old</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>&gt;36 years old</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>
Based on table 1, it can be concluded that almost half of the respondents aged 25-30 years were 9 respondents (45%). Based on background behind education obtained most respondents have high school education as much 13 respondents (65%).

B. Respondent's Special Data

Table 2 Frequency Distribution of Respondents Based on Specific Data Pregnant Women in Loceret Nganjuk Moon Tiger Village June 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Special Data</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother's diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>It is not in accordance with</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>In accordance</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Pregnancy Distance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>High risk</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Low risk</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Anemia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No anemia</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Anemia</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 2 can be concluded that almost all of the respondents have an appropriate eating pattern as much 18 respondents (90%) namely the appropriate eating pattern that meets the criteria for both menu preparation, frequency and portion sizes for pregnant women. Based on distance pregnancy data obtained that almost all respondents with low risk pregnancy intervals are 18 respondents (90%) i.e. the distance between pregnancy from the last pregnancy is more than 2 years. Based on the incidence of anemia, it was found that the data Overall respondents experienced anemia as much as 20 respondents (100%).

3. The relationship between diet and pregnancy interval with the incidence of anemia in pregnant women

Table 3 Tabulation cross The relationship between diet and pregnancy interval with the incidence of anemia in pregnant women in Indonesia Loceret Nganjuk Moon Tiger Village June 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Variable Independent</th>
<th>Variable Dependent Anemia</th>
<th>Total No Anemia</th>
<th>Total</th>
<th>f</th>
<th>%</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No</td>
<td>In accordance</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>In</td>
<td>accordance</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

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### IV. DISCUSSION

**Identify eat mom pregnant**

Based on Table 2 can be concluded that almost all respondents who have an appropriate eating pattern are anemic, namely 18 (90%). Pregnant women are one of the groups prone to malnutrition, because there is an increase in nutritional needs to meet the needs of the mother and fetus. Increased nutritional needs which include the need for protein, carbohydrates, fats, vitamins mineral and water with a diet of one and a half servings more than before pregnancy and consumed during pregnancy for fetal growth, placenta, increased blood volume, enlarged mammary and increased basal metabolism. (Patimah, 2017). Lack of nutritional intake and eating patterns that do not meet balanced nutrition which includes lack of carbohydrates, calories, protein, vitamins and minerals in pregnant women have a significant impact on the growth process of the fetus and the child to be born. The eating pattern that is formed is the same as a person’s eating habits. In general, the factors that influence the formation of eating patterns are economic, socio-cultural, religious, educational, and environmental factors (Sulistyoningsih, 2011).

Research by Dina mariana, 2018. The results from 30 respondents are that half of the respondents (50.0%) have an unhealthy diet, almost half of the respondents (26.7%) are anemic. Based on the Chi-Square test p-value = 0.035, which shows there is a relationship between diet and the incidence of anemia in pregnant women at Jalan Gedang Health Center, Bengkulu City.

A good diet during pregnancy can help the body cope with the special demands of being pregnant, and have a positive effect on the health of the baby. A healthy diet for pregnant women is food consumed by pregnant women must have the right amount of calories and nutrients such as carbohydrates, fats, proteins, vitamins, minerals, fiber and water. This diet is influenced by several things, namely habits, pleasures, culture, religion, economic level and nature. So that the factors that experience the diet of pregnant women affect the nutritional status of the mother. Pregnant women are also advised to consume a variety of foods that are processed from four main types of food, namely: rice or its alternative substitutes, fruits, vegetables, and meat or alternative substitutes. The food consumed every day should consist of these four kinds of food. This is because each of these food groups contains different nutrients, for example: meat and its substitutes contain protein, but do not contain vitamin C which is needed by the body. By being observant in choosing the variety of food needed, we can ensure that the food we consume contains balanced nutrition. If this balanced diet is not met, it tends to lead to anemia during pregnancy.

**Identify distance pregnancy in mother pregnant**

According to Ammirudin (2017), the highest proportion of deaths occurred in mothers with a priority of 1-3 children and when viewed according to the distance between pregnancies, it turned out that the distance of less than 2 years showed a higher proportion of maternal deaths. The distance between pregnancies that are too close causes the mother to have a short time to restore the condition of her uterus so that it can return to its previous condition. Pregnant women who are too close are at risk of
anemia during pregnancy. Because the iron reserves of pregnant women recover. Finally reduced to the needs of the fetus it contains. Pregnant women who are at high risk for gestational spacing are one of the vulnerable groups, because there is bleeding in pregnant women with a high risk of gestational spacing causing anemia.

Analyze connection pattern eat with incidence of anemia in mother pregnant in the village Tiger

Based on tabulation The cross section in table 3 shows that almost all respondents who have an appropriate diet are anemic, namely 18 (90%). Based on the results of bivariate analysis with chi square test with a significant value of 0.000 (p < 0.05), which means that there is a relationship between diet and the incidence of anemia in pregnant women in the village of Macanan.

A balanced diet is an eating habit that meets the needs of all nutrients, such as energy substances (carbohydrates and fats), building blocks (protein) and regulatory substances (vitamins and minerals). A balanced diet must be varied and balanced in terms of the quantity and quality of the food itself. Varied means that in the food portion there are all the nutrients and the quantity is balanced, so that there is no one type of nutrient that is excessive in the food portion. Diet is influenced by several things, including pleasure habits, culture, religion, economic level, natural environment, and so on. Since time immemorial, food in addition to strength/growth, to fulfill hunger and appetite, also has a place as a symbol, namely a symbol of prosperity, power, peace and friendship. All of the above factors mix to form a compact ingredient which can be called a consumption pattern (Santoso and Ranti, 2014).

The occurrence of anemia is generally caused by an unbalanced diet. This is due to the low nutritional awareness of the community, especially pregnant women. One of the steps that can be taken to prevent anemia is to improve the food menu that will be consumed. For example, by increasing the consumption of foods that contain lots of iron such as eggs, milk, liver, fish, meat, nuts, dark green vegetables, and fruits. Also pay attention to the nutrition of food in breakfast and the frequency of food that is regulated, especially for those who are on a diet. Get used to also add substances that facilitate the absorption of iron such as vitamin C, orange juice, meat, chicken, and fish. On the other hand, substances that inhibit iron absorption, such as tea and coffee, should be avoided.

Analyze connection distance pregnancy with incidence of anemia in mother pregnant in the village Tiger

Based on tabulation The cross section in table 3 shows that almost all respondents who have a low risk of pregnancy spacing experience anemia, namely 18 (90%). Repeat pregnancy with range short time will cause backup iron inside body Mother not yet recover with perfect and then return drained for the needs of the fetus being conceived. The distance of pregnancy is also a Thing important for Note, the optimal gestational distance is more from 36 months pregnancy before, while distance near pregnancy is not enough than 2 years (Varney, 2017). Too much pregnancy interval close could reduce benefits obtained from pregnancy before, like a uterus that has been grow and increase Genre blood to the uterus, while if the distance too short will make Mother no own time for recovery, damage system reproduction or postpartum problems (Prawihardjo, 2009).

Repeated pregnancy _ with close distance _ with pregnancy next naturally effect on the incidence of anemia in the mother, but when distance pregnancy no risky but Mother have anemia of course there is other factors that influence possibility because other factors such as age Mother so anemia in the mother pregnant with distance pregnancy no risky still have anemia

Limitations Study
Limitations in this study, the researcher did not examine or examine other causal factors that could increase the incidence of anemia in pregnant women

V. CONCLUSION
Almost all pregnant women the diet is appropriate 18 respondents (90%) in Macanan Village Lokeret Nganjuk Bulan June 2020
Almost all respondents who have a low-risk email distance are 18 respondents (90%) in Macanan Village Lokeret Nganjuk Bulan June 2020
Almost all respondents who have an appropriate diet experience anemia, namely 18 respondents (90%) in Macanan Village Lokeret Nganjuk Bulan June 2020
Almost all respondents who have a low risk of pregnancy interval experience anemia, namely 18 respondents (90%) in Macanan Village Lokeret Nganjuk Bulan June 2020.
All respondents experienced anemia in the village of Macanan Loceret Nganjuk Bulan June 2020 as much 20 respondents (100%).

There is a relationship between diet and the incidence of anemia in pregnant women in the village of Macanan Loceret Nganjuk Bulan June 2020.

There is a relationship between the distance of pregnancy and the incidence of anemia in pregnant women in the village of Macanan Loceret Nganjuk Bulan June 2020.

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