The Correlation of Nutritional Status and the Incidence of Anemia in Girls Class X Accounting 1 in SMK PGRI 2 Kediri

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ABSTRACT

Adolescence is transition period from childhood to adulthood period with a limit of age 10-19 years old, which one based on physically will experience of change as specific and based on psychological will begin to search for identity, physical changes because of the growth that occurs will affect health status and nutrition. And an imbalance between the intake of needs will lead to more nutritional problems and lead nutrition that give effect anemia. The purpose of this study to know about the correlation between nutritional status with the incidence of anemia. This study is correlational study with cross-sectional approach. The population is all girls grade X Accounting 1 in SMK PGRI 2 Kota Kediri. The technique using ”total sampling” is 50 student. Data retrieval is done on mei 7-21st 2017. Independent variables is nutritional status while dependent variables that is anemia incidence. Instrumental this study in dependent variable that is nutritional status is scales and microtoice staturmeter to measure BMI while dependent variable that is incidence of anemia is Hb electric to measure hemoglobin level. Statistical test used spearman Rank. The result of this study showed that the majority of normal nutritional status of 32 responden (64%) and no anemia that is 29 responden (58%). Test result spearman rank with SPSS program is p-value obtained for 0.002 < α 0.05 and r 0.434. And it a means there is a correlation nutritional status with the occurrence of anemia in adolescent girls class X Accounting 1 in SMK PGRI 2 Kota Kediri. From the result of this study is expected to increase the participant of principles with health official in the provision of counseling about nutrition in Girls so that the knowledge of respondents better than.

I. INTRODUCTION

Lack of nutritional needs on young women to this day is one of the problems of public health as the primary cause of anemia. Anemia causes weariness, difficult concentration so that teenagers at the age of work become less productive. Teens need more iron especially women, because every bulanya experiencing menstruation that impact the lack of intake of iron in the blood as a trigger for anemia. According to Thompson, nutritional status had a positive correlation with the concentration of Hemoglobin, it means getting worse nutritional status somebody then increasingly low levels of Hbnya. Based on the research of Permaesih, found a meaningful relationship between the BMI anemia, in which the young women with BMI belongs to skinny has 1.4 times the risk of suffering from anemia compared with normal BMI. Anemia is actually a sign of the disease process rather than the disease itself. It is usually classified as either acute or chronic. Chronic anemia occurs with a long time, whereas acute anemia occurs in rapid time. 

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Based on the survey on the World Health Organization (WHO) that the prevalence of iron deficiency in developed countries, i.e. India found 74.7% of young women (12-14 years). According to the Central Bureau of Statistics (BPS), the population of Indonesia as much as 2013 233 inhabitants and 26.8% or 63 million was aged 10 years to 24 years. Meanwhile, according to the national socio-economic Survey (Susenas) in 2009, the number of inhabitants in Central Java is 33,561,468 and the number of young women 10-17 years of 3.878,474 inhabitants. Household Survey (SKRT) in 2008 stated that prevalence deficiency anemia in young women aged 10-24 years of 57.1%. The data of young women have the highest risk for suffering from anemia.[5]

Research by Health RI in 2013 East Java province which covers 10 counties found that about 82% of young women experiencing anemia (Hb < 11.5 gr/dL). Health Office Kediri (2013) recorded the numbers of Genesis anemia adolescent students of Junior High School students were recorded as yaitu123 grade VII, while high school students as much as 99 student recorded as pupils of class X. of the total incidence of anemia teens Class VII JUNIOR highs 228 6 Kediri by number incidence of anemia 48.5%. Many studies have been done shows a group of teenagers suffer/suffered a lot of nutritional problems. Nutritional problems include Anemia and IMT is less than the normal range or skinny. Anemi prevalence ranges between 40%-88%, whereas the prevalence of teen with underweight ranges between 30%-40%.

According to Rustam Mochtar (2007:145) the incidence of anemia in influence by several factors. Factors affecting the occurrence of nutritional anemia status, then the consumption of foods as nutrition intake of young women need to get attention. It is therefore recommended to the General guidelines of the nutrition balance (PUGS) through the school and how to choose healthy foods and health knowledge about adolescent reproductive health needs to be given as early as possible [4]

Nutritional problems in teenagers will negatively affect the level of public health, for example, a decrease in the concentration study, the risk of giving birth to babies with low birth weight, decreased physical freshness. Many of the factors that cause this problem. By knowing the causative factors that affect the nutritional deficiency problems helps the efforts of penanggulangannya and more affected and focused.

II. METHOD

The design of this study is correlational by using the cross sectional approach. The purpose of this study to know about the correlation between nutritional status with the incidence of anemia in young women of class X 1 Accounting in SMK PGRI 2 Kediri.

The population in this study are all young women X-grade Accounting 1 in SMK PGRI. 2 year Kediri a number of 50 students. Total sampling techniques chosen, to get the sample, so the sample used in this study are all the young women in the class X Accounting 1 SMK PGRI 2 Kediri as many as 50 students. The independent variable in this study is the nutritional status in young women. The dependent variable in this study was the incidence of anemia in young women. This research was conducted at SMK PGRI 2 city of Kediri. Done in December-June 2017.

III. RESULT AND DISCUSSION

Table 1: Status of nutrition In young women of class X 1 Accounting in SMK PGRI 2 Kediri

<table>
<thead>
<tr>
<th>Status of Nutrition</th>
<th>F</th>
<th>Prosentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Normal</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>Overweight</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Σ</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that 50 responden studied got 32 respondents (64%) have normal nutritional status and 3 respondents (6%) have overweight.
Table 2: incidence of Anemia In young women of class X 1 Accounting in SMK PGRI 2 Kediri

<table>
<thead>
<tr>
<th>Incidence of Anemia</th>
<th>Jumlah</th>
<th>Prosentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td>Mild</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Severe</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Σ</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that 29 respondents (58%) do not experience anemia and tiny portion of respondents 2 respondents (4%) get moderate anemia.

Table 3: Correlation of nutritional Status with the incidence of Anemia In young women of class X 1 Accounting In SMK PGRI 2 Kediri

<table>
<thead>
<tr>
<th>Nutritional Statue</th>
<th>Incidence Of Anemia</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None F%</td>
<td>Mild F%</td>
</tr>
<tr>
<td>Underweight</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Normal</td>
<td>22</td>
<td>46</td>
</tr>
<tr>
<td>Overweight</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Jumlah</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

\( \rho\)-value = 0.002 pada \( \alpha = 0.05 \) dan \( r = 0.434 \)

Based on Table 1 shows that 50 responden studied got 32 respondents (64%) have normal nutritional status and 3 respondents (6%) have overweight.

Factors that can affect a person's nutritional status is a source of information. Information about a knowledge regarding nutritional status it will be increasingly difficult to sustain the needs of its nutrition value. Therefore, young women often assumed that her healthy and race-the race to better maintain her body to keep it interesting especially at the age of 15-19 years. At the age of 15-19 years old teenager is able to adapt well to information and changes happening in itself, as well as being able to adapt well to changes in the needs and expectations of parents and the community.

Living with your parents have a more regular life pattern because in this case, the role of parents in keeping an eye on children is still great. People who live in your own home also his life more calm because there is a charge, for example when being ill, while the lives of students who live in kost in general more experiencing difficulties rather than students living at home. It can be seen from the pattern of life as eating. On older, students living in boarding houses more often let his stomach empty a day because the bag is empty. Then schedule a good night too erratic because away from parental control. Several other factors that trigger the onset of nutritional problems at the age of adolescence like the wrong eating habits, understanding nutrition misinformation where a slim be craving in teens so that nutritional needs are not met and an excessive fondness to certain foods, such as fast food (fast food).

Based on table 2 of the 50 respondents who researched obtained 29 respondents (58%) do not experience anemia, 19 respondents (38%) experiencing mild anemia and 2 respondents (4%) get moderate anemic.

The occurrence of anemia in this research because it allows the lack of intake and minerals. This allegedly led to the majority of subjects experiencing anemia. In addition, there is another possibility that anemia suffered by most of the subject is not due to a deficiency of iron. Meaning that especially is the fact that many women stop teen drinking milk at time the calcium requirement is urgently needed.
Information obtained from various media both print and electronic information can be received by young women, so that someone who knows the mass media (TV, radio, internet, magazines and others) will obtain the information many compared to young women who never find out information from the media. At the time it was now increasingly sophisticated use of social media. On average now teens are already using android Handpone can find a variety of information about anything he wants. This means it can explain the mass media affects the level of knowledge which belonged to someone. In this study the majority of young women have never listened to information about anemia. On the other hand young women less utilizing social media in positive things such as information about health issues.

Spearman Rank test results obtained $\rho$-value of $0.02 < \alpha (0.05)$ and $r = 0.434$, meaning that there is a relationship between the nutritional status with the incidence of anemia in teens purti class X 1 Accounting in SMK PGRI Kediri. The magnitude of the value of $r = 0.434$ showed a strong relationship with nutritional status of anemia. This happens due to nutritional status had a positive correlation with the concentration of Hemoglobin, it means getting worse nutritional status somebody then increasingly low levels of Hbnya.

The State of the body mass index (BMI) in the category of thin has a tendency to be exposed to anemia$^6$. According to Thompson, uninterrupted growth associated with iron deficiency anemia and body mass index (BMI) is positively related to the concentration of hemoglobin a person. But the results are different with a group of women of fertile age in Lebanon, indicating that the lack of a relationship with BMI status of anemia (Khatib et al 2006 referenced in Briawan 2008).

Based on the research of Permaesih, found a meaningful relationship between the BMI anemia, in which the young women with BMI belongs to skinny has 1.4 times the risk of suffering from anemia compared with normal BMI. Anemia is actually a sign of the disease process rather than the disease itself. It is usually classified as either acute or chronic. Chronic anemia occurs with a long time, whereas acute anemia occurred in a hurry$^3$.

According to research dipoliwali mandar stating that there is a relationship between the nutritional status with the incidence of anemia in young women. The higher the teenagers who have nutritional status less then the number of occurrence of anemia in young women. Nutritional status in teenagers in Indonesia include less macro-nutrients (carbohydrates, proteins, fats) and micronutrients (vitamins and minerals). If the nutritional status is not normal then dikwatirkan iron status also is not good, so that it can lead to anemia$^1$.

According to the opinion of the researchers of the various factors that can affect nutritional status with the incidence of anemia a person one is the source of information. Respondents with low information about a knowledge of the relationship of nutritional status with the incidence of anemia it will be increasingly difficult in applying something that concerns with health as eating nutritious foods to meet the needs of the Iron nutrition status and substance. Most respondents are not getting the information because it is still someone's lack of knowledge and lack of curiosity from within about a new thing, most of the respondents felt that her healthy so it does not need to be find out about a disease that does not affect them.

Age affects a person's knowledge. The more mature a person's age, knowledge gained ever more and more. A variety of experiences has been able to increase knowledge. The more experience, the knowledge gained ever more and more. Age greatly affect the quality of a person's knowledge. Knowledge of students of SMK Class X 1 Accounting about the relationship status of nutritional anemia with obtained in the limit simply because of their age, the majority of 15-17 years. Occasionally, their experience of nutritional status with the Genesis anemiabelum fully be known either. The more mature age students, the better knowledge of the nutritional status also with anemia and may prevent the incidence of anemia with good and proper.
IV. CONCLUSION

1. The majority of the respondents i.e. 32 respondents (64%) had normal nutritional status.

2. The majority of the respondents i.e. 29 respondents (58%) are not anemic.

3. From Spearman Rank test results with the program SPSS obtained value of $\rho-0002 < \alpha (0.05)$ and $r = 0.434$, meaning that there is a relationship of nutritional status with the incidence of anemia in teens purti class X 1 Accounting in SMK PGRI 2 city of Kediri. The magnitude of the value of $r = 0.434$ showed a strong relationship with nutritional status of anemia in young women.

V. REFERENCES


