LIFE: International Journal of Health and Life-Sciences
ISSN 2454-5872

Ramadhan et al., 2019

Volume 5 Issue 1, pp. 119-125

Date of Publication: 4th May 2019

DOI-https://dx.doi.org/10.20319/lijhls.2019.51.119125

This paper can be cited as: Ramadhan, R. R., Askhori, S., Ismah, Z., & Mariana., (2019). The Changes in Eating Habit after Nutritional Education on Anemia Maternal. LIFE: International Journal of Health and Life-Sciences, 5(1), 119-125.

THE CHANGES IN EATING HABIT AFTER NUTRITIONAL EDUCATION ON ANEMIA MATERNAL

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Abstract

According to WHO (2008), globally the prevalence of anemia in pregnant women worldwide is 41.8%. Anemic pregnant women are wrong factors due to poor diet. Nutrition education is one of the preventive activities in improving the diet of pregnant women. A good diet during pregnancy can help the body overcome special requests for pregnancy, and have a positive influence on the health of the baby. This study aims to determine changes in consumption of eating patterns in anemic pregnant women after being given nutritional education in the city of Palembang. This type of research uses quantitative methods with an experimental desain. The population in this study were pregnant women in Palembang City. The study sample consisted of 41 respondents (18

anemia, 23 normal). The collection technique used random sampling technique. Statistical test results show that there is a significant influence between nutritional education and rice consumption patterns (p-value 0.013), animal protein consumption (p-value 0.015), vegetables (p-value 0.03) in pregnant women.

Keywords

Education, Nutrition, Pregnant Women, Anemia

1. Introduction

Anemia in pregnancy is the condition of the mother with hemoglobin levels <11 gr% in the first and third trimesters or levels <10.5 gr% in the second trimester (Fatimah, 2011). According to WHO (2008), globally the prevalence of anemia in pregnant women worldwide is 41.8%. The prevalence of anemia in pregnant women is estimated in Asia at 48.2%, Africa 57.1%, America 24.1%, and Europe 25.1% (Salmariantity, 2012).

Based on the results of Basic Health Research Indonesia (Riskesdas) in 2013 year, the incidence of anemia in Indonesia is still high, there are 37.1% of pregnant women who have anemia (Riskesdas, 2013). In the city of Palembang in 2012 there were 31,502 pregnant women, with an incidence of anemia of 1,017 (3.10%) pregnant women, in 2013 pregnant women as many as 32,302 with an incidence of anemia of 1,001 (3.0%), in 2014 there are 33,309 pregnant women with anemia incidence of 1,028 (3.0%) people (Palembang City Health Office, 2014). Despite the decrease in the incidence of anemia in pregnant women in the city of Palembang from 2012 to 2014, the rate of decline was not so significant, so it needed special attention by the government.

According to research conducted by Wati (2016) showed that there were 6 variables that contained a relationship between knowledge (P-value 0.023), gestational age (P-value 0.044), iron intake (P-value 0.048) and consumption of Fe tablets (P-value 0.049) on the incidence of anemia. A good diet during pregnancy can help the body overcome special requests for pregnancy, and have a positive influence on the health of the baby. A healthy diet for pregnant women is the food consumed by pregnant women must have a number of calories and nutrients in accordance with needs such as carbohydrates, fats, proteins, vitamins, minerals, fiber and water (Manuaba, 2012). This diet is influenced by several things, namely habits, pleasure, culture, religion, economic and natural level. So that the factors that experience the diet of pregnant women affect the nutritional status of the mother.

Pregnant women are also encouraged to eat a variety of foods prepared from four types of food principal. That are rice or alternative substitutes, fruits, vegetables, and meat or alternative substitutes. Food consumed every day must consist of four variety of food. This is because each of these food groups contains different nutrients, for example: meat and alternative substitutes contain protein, but do not contain vitamin C which is needed by the body. By carefully choosing the variety of food needed, we can ensure that the food we consumed contains balanced nutrition (Keisnawati, et al, 2015). If this balanced diet is not fulfilled, it tends to cause anemia during pregnancy.

The wrong diet in pregnant women has an impact on the occurrence of nutritional disorders, including anemia. The diet of pregnant women is related to changes in behavior. Behavioral change is strongly influenced by knowledge which is an important domain for the formation of one's actions. Knowledge is the result of sensing of sight and hearing obtained from various sources, including through health workers (Notoatdmojo, 2017).

Given that anemia is a disease that has serious consequences in pregnancy and there are still many occurrences of anemia in pregnant women, this study aimed to determine changes in consumption of eating patterns in anemic pregnant women after being given nutritional education in the city of Palembang.

2. Method

This type of research uses a quantitative method with an experimental desain with a sample of 18 anemia pregnant and 23 normal pregnant. Anemic sample was given treatment in the form of education while the normal one was not given an education treatment. The population in this study were pregnant women in Palembang City. The sample of the research was 41 respondents taken using random sampling technique and carried out by lottery.

Inclusion criteria were pregnant women living in the city of Palembang with <3 months gestational age. Exclusion criteria are pregnant women who suffer from chronic diseases that affect pregnancy such as; Diabetes, tuberculosis, HIV, hypertension, and cancer.

The provision of education is given when pregnant women perform prenatal care starting from Trimester I, Trimester II and Trimester III, so the amount of education is 3 times. 1 time of education takes 30 minutes, so the total education is 90 minutes. Educational material is about good food consumption during pregnancy. Education is carried out by doctors / midwives who have been invited to work together.

3. Results and Discussion

The discussion in this journal regarding changes in consumption patterns for anemic mothers who have been given education shows that the upper secondary school level of education is higher for anemia by 72% compared to undergraduate education level of 22% and junior high school 5.50%.

Furthermore, at the level of maternal anemia, the result is that anemia mothers have income below the city / regency minimum wage of 66% compared to anemic mothers whose income is above the city / regency minimum wage of 33%.

Table 1: *Effect of Nutritional Education on Eating Patterns in Pregnant Women*

Variable	**N**	**Mean**	**SD**	**P *value***
Age				
Anemia	18	29.39	4.996	0,163
Normal	23	27.00	5.592	
Rice				
Anemia	18	18551.67	4798.898	0,013
Normal	23	15237.83	2439.657	
Bulbs				
Anemia	18	2382.78	1090.654	0,528
Normal	23	2184.35	905.929	
Animal Protein				
Anemia	18	12024.28	1578.562	0,015
Normal	23	10691.74	1738.064	
Vegetable Protein				
Anemia	18	5156.11	750.021	0,35
Normal	23	4915.22	853.532	
Fat				
Anemia	18	665.56	275.408	0,129
Normal	23	803.04	286.236	
Sugar				

Anemia	18	480.78	114.717	0,455
Normal	23	506.00	99.325	
Vegetable				
Anemia	18	17266.39	3207.851	0,03
Normal	23	15155.65	2778.246	

Based on the results of the statistical tests above, it shows that there is a significant effect between providing education with rice consumption patterns on pregnant women (p-value 0.013), in which rice consumption patterns in anemia pregnant women who were given more education than pregnant women were not anemic and not educated. Furthermore, in the animal protein variables which after being given education showed a significant effect between education with patterns of animal protein consumption in pregnant women (p-value 0.015) where the consumption of animal protein in anemia pregnant women were given more education than pregnant women who were not anemic and not given education. Vegetable variables showed a significant effect between providing education and vegetable consumption patterns on pregnant women (p-value 0.03), where vegetable consumption patterns in anemia pregnant women were given more education than pregnant women who were not anemic and not educated.

According to Lawrence Green (1980) in Notoatmodjo (2007), the factors that influence behavior include, presdisposing factor, which manifests in knowledge, attitudes, beliefs, beliefs, values and so on, supporting factors.), which is manifested in the physical environment, availability or unavailability of health facilities or facilities, reinforcing factors that are manifested in the attitudes and behavior of health workers or other officers, which are reference groups of community behavior.

Education can change a person's nutritional status as evidenced by various studies. According to research by Nuryanto (2014) that there is an influence of nutritional education on school-age knowledge of school children nutrition. This result is consistent with research in school-age children. In the new jersey about school education programs to promote healthy food and sports, the study found that there was an increase in knowledge of school-age children after getting an education program. Also in the Novita (2017) study the provision of education had a significant difference in body weight between TB patients before being given education and after being educated with the difference in weight of patients before and after education in patients with 2.8 kg TB.

According to Marfuah's (2016) study that the majority of iron intake for adolescent girls before being given nutritional education was in the poor category (82.14%) and after being given the majority nutrition education (75%) the nutritional education was effective in increasing the average iron intake. in young women 15.5 mg (p value <0.000). As well as in Irnani's research (2017) most (54.1%) of the subject's nutritional knowledge before the intervention included in the less category. After the intervention, knowledge of nutrition increased to enough.

4. Conclusion

There was an effect of nutritional education on changes in consumption of diet of anemia pregnant women, namely rice (p-value 0.013), animal protein (p-value 0.015), vegetables (p-value 0.03)

It is recommended that the health center routinely provide nutrition education programs for pregnant women every time a pregnant woman visits a health center. For further researchers, it is expected that this research can be perfected by adding other variables and by adding other factors that can cause anemia such as parity and age of pregnant women or examine other variables that are more varied and include broader research with different research methods especially.

5. Acknowledgments

We would like to present our gratitude to Dean of Public Health Faculty, Dr. Azhari Akmal Tarigan, M.Ag. and the Rector of State Islamic University of North Sumatera, who provide support and assistance in compliting this journal, and say thank the of IKM-IKK Medical Faculty Sriwijaya University who has helped in the research.

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