

THE EFFECTIVENESS OF NUTRITION EDUCATION ON STUNTING PREVENTION BEHAVIOR IN PREGNANT WOMEN IN KAWAY XVI DISTRICT, ACEH BARAT REGENCY

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Abstract

Stunting is a health problem in the world that has not been completely resolved until now. It is estimated that 22.2% or 150.8 million children under five in the world are stunted. West Aceh is one of the districts in Aceh province which has a high prevalence of stunting, so this is a public health problem. Therefore, it can be stated that the state of Indonesia, especially the province of Aceh and also the district of West Aceh, for stunting has not yet reached the WHO target, which means it is still a public health problem. Objective: to examine the effectiveness of education on prevention of stunting in pregnant women. Research methods: The design used in this study was quasi-experimental with one group pre and post test. The sample in this study amounted to 15 pregnant women. the sample was selected using consecutive sampling. Then tested the difference in knowledge of pregnant women using the Wilcoxon test . Results: the results of the Wilcoxon test showed that there was a significant difference in the knowledge of the respondents after being given education about stunting prevention by the researchers (p-value = 0.002). Conclusion: it can be seen that by providing knowledge education on stunting prevention behavior in pregnant women has very potential results, so it is hoped that the knowledge that has been obtained can be applied to future children. Suggestion: From the results of the study, nutrition education for pregnant women should be carried out several times so that what is conveyed can be received and can be understood properly so that pregnant women understand the importance of adequate nutrition so that stunting does not occur in their future babies.

Keywords: *Stunting, Pregnant Women Education, Nutrition Education.*

1. INTRODUCTION

Stunting is a health problem in the world that has not been completely resolved until now. It is estimated that 22.2% or 150.8 million children under five in the world are stunted (UNICEF, WHO, World Bank, 2018). *Stunting* is still a nutritional problem that must be faced globally, especially in poor and developing countries. *Stunting* refers to the condition of failure to grow in children due to chronic malnutrition during the growth and development of children from the beginning of life which is marked by the height or length of a child's body that is not in accordance with the child's age.

The prevalence in Asia is 55% and in Africa 39%, while the rest is spread in North America, Latin America and Oceania. In the Southeast Asian region, the prevalence of stunting until 2017 reached 25.7%. The report by UNICEF, WHO, & World Bank (2018) shows that the prevalence of stunting in 2000 reached 32.6% and has now decreased to 22.2% in 2017. The problem of *stunting* in Indonesia is quite high, this can be proven based on data The Ministry of Health through the Basic Health Research (Riskesdas) in 2018, the prevalence of stunting was 30.8%, of which 19.3% were children who were in the short category and 11.5% were in the very short category. Indonesia has 34 provinces, one of which is Aceh province. Based on the results of the final report of the Study on the Nutritional Status of Indonesian Toddlers (SSGBI) in 2019, it

showed that the prevalence of *stunting* in children under five (0-59 months) in Aceh Province was greater than the national figure of 33.6%.

West Aceh is one of the districts in Aceh province that has a fairly high prevalence of *stunting*. Based on the results of the 2019 SSGBI final report, it shows that the prevalence of *stunting* in children under five (0-59 months) in West Aceh district is greater than the provincial figure of 40.4%. According to the *World Health Organization* (WHO), if the prevalence of *stunting* is 20% or more, then this is a public health problem. Therefore, it can be stated that the state of Indonesia, especially the province of Aceh and also the district of West Aceh, for *stunting* has not yet reached the WHO target, which means it is still a public health problem.

Stunting is also a factor from mothers who lack nutrition and nutrients during pregnancy, this stunting can cause babies born to be malnourished and have a huge impact on intelligence, physical growth and brain development later, therefore babies born stunted grow and develop He is different from normal children his age. *Stunting* is a health problem that must be considered and must be treated early because it has a very long impact on a person's life (Torlesse H, et al, 2016). *Stunting* has an impact on intelligence levels, reduces productivity, vulnerability to disease, thus hampering economic growth and increasing poverty and inequality which has long-term effects on him, his family, and the government (Ministry of Finance, 2018)

Health promotion is very influential on increasing the knowledge of pregnant women about the many danger signs of pregnancy, especially for pregnant women who live in villages which can be said to be far from sources of knowledge about the importance of health.

Kaway XVI is one of the sub-districts in West Aceh Regency with a sub-district area of 510.18 Km² which has 3 Mukim, 44 villages (Gampong) and a population of 22,977 people (BPS, Aceh Barat in Figures, 2020). Based on the initial survey data, the general population in Kaway XVI is traders and farmers. While the average level of education of the population is high school graduates, so the average knowledge is still said to be poor. The prevalence of *stunting* is high and there has been no research on the incidence of *stunting* in the West Aceh region, especially Kaway XVI District.

Based on the data and explanation above, the researchers are very interested in conducting research on the effectiveness of education on stunting prevention behavior in pregnant women in Pungkie Village, Kaway XVI District. The purpose of this study was to determine whether after being given education on stunting prevention behavior can increase knowledge in pregnant women and can help reduce the incidence of stunting in pregnant women in Kaway XVI District.

2. IMPLEMENTATION METHOD

The research design used is a quasi-experimental design, namely pre-test post-test. This research was conducted in Kaway XVI District, West Aceh Regency, data collection was carried out from September to October 2021. The population of this study was all pregnant women in Kaway XVI District, with 15 samples being the average sampling taken from 4 villages namely Keude Tanjong, Tanjong Bungong, Puuk, and Pungkie. The sampling technique was done by consecutive sampling.

Collecting data using instruments for pre and post intervention activities for pregnant women. Before the intervention was carried out, a pre-test instrument was given to determine how the initial condition of the mother's knowledge about stunting prevention was. After that, a class meeting for pregnant women was given, then the mother's knowledge about stunting prevention

was measured using a post-test instrument to determine the mother's knowledge after being given a class meeting for pregnant women.

Data analysis of pregnant women's knowledge used the Wilcoxon test to calculate two groups of data that were statistically different. The aim is to find out where the differences between the two data groups are. The data that has been processed using the Wilcoxon test then draws conclusions, namely making conclusions from the research data so that definite conclusions are obtained.

3. RESULTS AND DISCUSSION

3.1 Results

This study was conducted to determine the difference in knowledge of pregnant women before and after being given class education for pregnant women. The sample used in the study was 15 people. Then tested the difference in knowledge of pregnant women using the Wilcoxon test. Here are the results of the comparison of the pretest and posttest :

Table 1 Comparison Results of Pretest and Posttest

| Subject | Pre-Test | Post-Test | gain (d) |
|---------|----------|-----------|----------|
| 1 | 35 | 60 | 25 |
| 2 | 65 | 70 | 5 |
| 3 | 50 | 60 | 10 |
| 4 | 40 | 60 | 20 |
| 5 | 50 | 60 | 10 |
| 6 | 70 | 60 | 10 |
| 7 | 40 | 50 | 10 |
| 8 | 55 | 70 | 15 |
| 9 | 55 | 60 | 5 |
| 10 | 50 | 80 | 30 |
| 11 | 25 | 60 | 35 |
| 12 | 35 | 60 | 25 |
| 13 | 50 | 60 | 10 |
| 14 | 55 | 70 | 15 |
| 15 | 35 | 60 | 25 |

Testing the data in table 1 uses the Wilcoxon test. The following are the results of Wilcoxon testing using SPSS software :

Table 2 Results of Bivariate Analysis (Wilcoxon Test) Stunting Prevention Education

| Variable | mean | SD | N | P. Value |
|----------------------------|-------|-------|----|----------|
| Knowledge before Education | 47.33 | 12.23 | 15 | 0.002 |
| Knowledge after Education | 62.66 | 7.04 | 15 | |

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Table 2 shows an increase in the average (mean) knowledge of pregnant women before education, which is 47.33 and after education, which is 62.66. The difference in standard deviation before education is 12.33 and after education is 7.04. The p-value was obtained from the Wilcoxon test because the data were not normally distributed. The significance value for knowledge of pregnant women about stunting prevention based on the Wilcoxon test is 0.002 (p-value <0.05) so H_0 is rejected, meaning that there is an increase in knowledge of pregnant women about stunting prevention significantly before and after being given education in the class of pregnant women.

3.2 Discussion

The number of pregnant women participants in Kaway XVI District in this activity was only 150 people. The class activity for pregnant women begins with the distribution of pre-test questionnaires, then after filling is complete, it is continued by providing education on stunting prevention in the class for pregnant women. After being given education, the post-test questionnaire was distributed again to see and find out how much knowledge increased pregnant women about stunting prevention after being given education. The results of filling out the questionnaire were analyzed first to find out the difference in knowledge before and after education (Table 1).

Good knowledge of nutrition in pregnant women can affect the nutritional status of pregnant women. This is in accordance with the results of research by Ilmiani, Tasya, K, Anggarini, Dian I, and Hanriko R, (2018). Pretest and Posttest Comparison Results. Several studies have shown that mother's knowledge is closely related to the nutritional status of children later. The better the mother's knowledge, the more normal the nutritional status of her child (Nindyna Puspasari & Merryana Andriani, 2017; Susilowati & Himawati, 2017). Increased knowledge of mothers can be obtained from various information both from posyandu, community health centers, which are provided by village midwives for issues of good nutrition for pregnant women. A mother who has high knowledge about poor nutrition will greatly affect her nutritional status, especially for pregnant women, because good knowledge will greatly affect the nutrition of her child later in order to avoid stunting.

Health education can improve knowledge and increase understanding of nutrition and be able to apply in everyday life, this is in accordance with the results of research Husna, PM and Pure, K, (2019) which states that health education indirectly influence on the understanding of the importance of intake good nutrition during pregnancy to prevent the incidence of KEK. Efforts made to prevent the occurrence of SEZ were also carried out by Lestari, Cahaya I et al (2020) who carried out community service, namely nutrition education for the prevention of SEZ in pregnant women. One of the nutritional factors in pregnant women is chronic energy deficiency (KEK) where in this condition there will be a risk of babies with LBW which will have an impact on stunting in these children in the future. Adequate balance and nutrition for prospective mothers will affect overall health conditions during conception and pregnancy and can break the chain of malnutrition problems during pregnancy (Susilowati et al., 2016), therefore the fulfillment of nutrients in pregnant women must be paid attention to so that the status of pregnant women becomes normal, so as not to experience KEK and anemia and disease. other. This is supported by the results of research

conducted in the city of Surabaya, suggesting that supplemental feeding is able to change the nutritional status of pregnant women with SEZ to normal (Arsy Prawita, 2017).

Nutritional regulation during pregnancy starting from the first trimester, second trimester and third trimester nutrition regulation during pregnancy starting from the first trimester, second trimester, until the third trimester is very important to pay attention to. This is because the nutritional status of pregnant women must be normal, so that they can carry out their pregnancies well and safely, and the babies born are physically and mentally healthy. One of the nutritional needs that need to be adjusted during pregnancy is related to vitamin and mineral intake (Ahmar Hamdiah, 2020). The things that are very important in maintaining health during pregnancy are eating healthy foods, doing sports regularly to avoid excessive stress, maintaining body weight and getting enough rest in order to increase endurance optimally. If daily nutritional needs cannot be met, you can take supplements and vitamins to get additional nutritional intake, but you need to be wise in choosing and using them (Lidia et al., 2020).

Based on the Wilcoxon test with (0.05) p value = 0.002, it is known that there is a difference in knowledge of pregnant women in Kaway XVI District between pretest and posttest. There was an increase in the average knowledge score of pregnant women from 47.33 to 62.66 (Table 2) .

The significance value for knowledge of pregnant women about stunting prevention based on the Wilcoxon test is 0.002 (p-value <0.05) so H_0 is rejected, meaning that there is an increase in knowledge of pregnant women about stunting prevention significantly before and after being given education in the class of pregnant women. The problem of stunting among the community still really needs to get more attention, there are still very many people who do not realize and know that children who have abnormal height (short) and low weight are a health problem, because basically the community sees that this incident is still said to be normal if the child's activities are normal. It is another thing, such as a child who is malnourished, whose playing activity is still very lacking, even though it occurs in a child's physical growth disorder, it can still be improved by providing an increase in better nutritional intake, but this is not with the development of intelligence.

To prevent stunting in children who are born later, a mother needs a fairly good intake of nutrients such as the fulfillment of macro and micro nutrients.

Eating habits that do not meet the standards, if it lasts a long time then WUS will be at risk of experiencing CED compared to those with a good diet, even though at the time of the study the state of Women of Childbearing Age (WUS) was categorized as not experiencing SEZ (Alam et al, 2020). Growth that is not optimal during the 1000 HPK period can have a long-term impact, if external factors do not support *stunting* growth can become permanent as a short teenager. Short growth is often considered as an influence of genetics, even though genetic factors only explain 15% of variation compared to nutritional factors (Rahayu, 2014). Research in Nepal shows that babies with low birth weight have a higher risk of experiencing *stunting* (Ni'mah, 2015). The incidence of *stunting* in children is influenced by nutritional conditions during pregnancy, therefore the provision of nutritional intake and administration of Fe tablets to pregnant women is highly recommended so as not to have an impact on anemia during pregnancy. Consumption of food with balanced nutrition is the prevention of *stunting* problems that must be started from a young age in order to break the *stunting* chain in the life cycle. Therefore, preparation for pregnancy regarding the importance of fulfilling nutrition needs to be carried out since the preparation period or before pregnancy so that *stunting* prevention can be carried out more optimally.

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Nutritional regulation during pregnancy starting from the first trimester, second trimester and third trimester nutrition regulation during pregnancy starting from the first trimester, second trimester, until the third trimester needs to be considered. This is because the nutritional status of pregnant women must be normal, so that they can have a good and safe pregnancy, and the babies born are physically and mentally healthy. One of the nutritional needs that need to be adjusted during pregnancy is related to vitamin and mineral intake (Ahmar Hamdiah, 2020). The maternal mortality rate per 100,000 live births in 2015 was 305. The results of the 2017 Demographic and Health Survey (IDHS) showed the infant mortality rate was 24 per 1,000 live births. The direct causes of maternal death are bleeding, infection, hypertension and anemia during pregnancy, while the indirect causes are pregnant women who are malnourished. One of the factors causing the still high mortality rate in pregnant women is anemia (Solehati et al., 2018). Based on the 2018 Basic Health Research, the prevalence of anemia in pregnant women reached 48.9% (Risksedas, 2018). Based on the results of the National Health Indicator System (Siskernas) in 2016 the incidence of anemia in pregnant women in Indonesia is still high, namely 37.1% (Soemantri, 2018). The prevalence of anemia in pregnant women in Indonesia increased compared to 2013 which was 37.1% of pregnant women who were anemic, while in 2018 it increased to 48.9% (Risksedas, 2018). About 95% of cases of anemia during pregnancy are caused by iron deficiency (Purwaningtyas & Prameswari, 2017). Lack of micronutrients (micronutrients) can cause a decrease in nutritional status and health problems, such as anemia (Ardiaria, 2017). To prevent anemia in pregnant women, the nutritional needs during pregnancy must be met (Ardiaria, 2017). Based on the research that there is a relationship between anemia and the incidence of postpartum hemorrhage ($p = 0.00 < = 0.05$) and the value of OR = 6.00 so that this result is important to anticipate the occurrence of bleeding caused by anemia because bleeding is the biggest contributor to maternal mortality. (Yunadi et al, 2019). Education about the prevention of anemia in pregnant women is an effort to increase knowledge and change behavior to be positive so that pregnant women can make various efforts to prevent anemia (Sukmawati et al, 2019).

4. CONCLUSION

The results of this study can be concluded that mothers who attend education in pregnant women classes, most of them have good knowledge, there is a significant relationship between giving pregnant women classes to increasing knowledge about *stunting* prevention behavior, one of the efforts that can be done to prevent *stunting* and improve The degree of health is that health workers must provide promotive services to the community, especially mothers. Providing education and motivation regarding the maintenance and fulfillment of nutritional status needs in pregnant women is a form of effort that can be made so that changes in family behavior occur towards families who are willing, know and able to prevent *stunting*.

5. SUGGESTION

From the results of the study, nutrition education for pregnant women should be carried out several times so that what is conveyed can be received and can be understood properly so that pregnant women understand the importance of adequate nutrition so that *stunting* does not occur in their future babies.

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