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THE EFFECT OF BALANCED NUTRITION EDUCATION ON NUTRITION FULFILLMENT BEHAVIOR IN AN EFFORT TO PREVENT STUNTING IN PRECONCEPTION WOMEN

Tutik Hidayati[1], Iis Hanifah[2]
[1] Hafshawaty Universitas, Probolinggo - Indonesia
[2] Departement of Midwifery Education Profession Program
Corresponding Email: afithuafda2702@gmail.com

ABSTRACT

Nutrition during preconception is the main factor that affects the condition of women of childbearing age during pregnancy and the well-being of the baby. Nutritional status during preconception is one of the determinants of the quality of human life, especially for mothers and babies, with the fulfillment of balanced nutrition. In 2020, the risk of KEK in Indonesia was 9.7% in pregnant women (Ministry of Health, 2021). In 2022, the number of pregnant women experiencing KEK was 5.6%. In Probolinggo Regency in 2021, 12.7% of pregnant women had KEK. Providing nutritional education is one effort to convey nutritional knowledge to preconception women. This study aimed to analyze the Effect of Balanced Nutrition Education on Nutritional Fulfillment Behavior in efforts to prevent stunting in Preconception Women. The research design used was cross-sectional. The population in this study were all preconception women in Gading Village, Probolinggo, totaling 67 people. The sampling technique used was simple random sampling. The sample in this study was some women in Gading Village, Probolinggo, totaling 46 people. The analysis used is the Wilcoxon test statistical test using SPSS. The results of the study obtained the results of the analysis test using the Wilcoxon test showed a sig value of 0.000. Preconception nutritional preparation for prospective mothers is very necessary in preventing stunting.

Keywords

Education, Balance Nutrition, Behavior, Stunting

INTRODUCTION

The preconception period is the period from three months to one year before conception and ideally should include the time when the ovum and sperm are mature, which is about 100 days before conception. The nutritional status of WUS or premarital women during the three to six months of the preconception period will determine the condition of the baby born. Nutritional status

during the preconception period is one of the determinants of the quality of human life, especially for mothers and babies, with the fulfillment of balanced nutrition. This is closely related to the incidence of illness and death caused by Chronic Energy Deficiency and Iron Deficiency (anemia) in mothers during pregnancy, childbirth, and postpartum. The preconception period is the period before pregnancy.

Maintaining adequate nutrition before pregnancy is very important for preconception women because good nutrition will support the function of the reproductive organs optimally such as a smooth egg maturation process, production of good quality egg cells, and perfect fertilization process. For prospective mothers, adequate and balanced nutrition will affect overall health conditions during the conception and pregnancy period and will resolve the problem of malnutrition during the pregnancy period (Doloksaribu & Simatupang, 2019). Poor nutritional conditions during preconception or even during pregnancy can cause illnesses such as anemia and KEK (Chronic Energy Deficiency) and even death in mothers. According to the 2015 Census Figure Survey (Supas), "the maternal mortality rate in Indonesia is still high, which is around 305 per 100,000/KH (Live Birth)" (Kemenkes, 2019a).

According to WHO, the incidence of Chronic Energy Deficiency in pregnancy is in the range of 35-75%. In 2020, the risk of Chronic Energy Deficiency in Indonesia was 9.7% in pregnant women (Kemenkes, 2021). In 2022, the number of pregnant women experiencing Chronic Energy Deficiency was 5.6%. In Probolinggo Regency in 2021, there were 12.7% of pregnant women with Chronic Energy Deficiency.

Research conducted by Rahim et al showed a change in knowledge about nutrition and reproductive health after the Prospective Bride Course was given to preconception women. Where before Suscatin only 70.4% of respondents had sufficient knowledge and 29.6% had insufficient knowledge. After Suscatin was conducted, there was an increase where all respondents had sufficient knowledge, namely 100% and none had insufficient knowledge. Saptawati revealed that knowledge about the importance of nutrition for prospective mothers can increase awareness of fulfilling nutrition before they become pregnant. This is in line with the results of Fauziyah's research in Tegal City which showed the influence of health education on preconception nutrition where there was an increase in knowledge and attitude scores before and after the intervention.

Based on a preliminary study of the average age of marriage and nutritional status through measuring the upper arm circumference (LILA) in premarital women who registered at the KUA Gading District, it was found that the average age of marriage of premarital women was 20 years, then the researcher measured the LILA and obtained data that out of 10 samples there were 4 (60%) premarital women who had a LILA measurement below 23.5 cm.

Preconceptional knowledge of women about nutrition is one of the indirect causes of malnutrition. However, increasing knowledge through nutrition education can prevent malnutrition and improve a person's behavior to consume food according to their nutritional needs. Good knowledge is one of the factors that influences a person's attitude (Rahmy et al., 2020). One of the efforts to convey nutritional knowledge to preconception women is by providing nutritional education. Health education or nutritional education is one of the behavioral modification processes that aims to influence or change community behavior that includes knowledge, attitudes, and

practices related to healthy living goals for individuals, groups, and communities and is part of a health program (Asnidar,2017). The importance of maintaining adequate nutrition for premarital women before pregnancy is because good nutrition will support the optimal function of reproductive organs such as smooth egg maturation, production of good quality egg cells, and a perfect fertilization process. Good nutrition can also play an important role in providing nutritional reserves for fetal growth and development. For prospective mothers, adequate and balanced nutrition will affect overall health conditions during conception and pregnancy and will be able to break the chain of malnutrition problems during pregnancy. (Susilowati & Kuspriyanto. 2016).

METHOD

The research design used was cross-sectional. The population in this study were all preconception women in Gading Village, Probolinggo, totaling 67 people. The sampling technique used was simple random sampling. The sample in this study was some women in Gading Village, Probolinggo, totaling 46 people. The researcher explained the purpose and procedures of the study and then distributed informed consent to be signed by preconception women. For preconception women who agreed to participate in the study, their data were taken by interview according to the items in the questionnaire. After completing the data collection, the researcher summarized and analyzed the research data. The data will be analyzed using SPSS with the Wilcoxon signed test analysis test.

RESULT

The analysis of research data using the Wilcoxon signed test. This test is used to compare observations before and after treatment. The results of testing behavior before and after being given balanced nutrition education to fulfill nutrition can be presented in the form of a table.

Table 1. Frequency distribution of respondents based on age level

Age	F	%
26-35	29	63
36-45	15	32,6
46-55	2	4,4
Total	46	100

Based on the table above, data was obtained from all respondents aged 36-45 years, amounting to 29 people (63%).

Table 2. Frequency distribution of respondents based on education

Education	F	%
No school	10	21,7
Elementary School	3	6,5
Junior High School	15	32,6
Senior High School	17	37,0

Based on the table above, data was obtained that the majority of respondents' last education of mothers of stunted toddlers was high school/Islamic high school, with as many as 17 people (37.0%).

Table 3 Frequency distribution of respondents by occupation

Occupation	F	%
Housewife	27	59
Trade	6	13
Self-employed	12	26
Government employees	1	2

Based on the table above, data was obtained that the majority of respondents with the highest education level of mothers of stunted toddlers were housewives, amounting to 27 people (59.0%).

Table 4. The Influence of Balanced Nutrition Education on Nutritional Fulfillment Behavior in Efforts to Prevent Stunting in Preconceptional Women in Gading Village

Behavior	Balanced Nutrition Education			
	Before		After	
	F	%	F	%
Good	6	13,0	27	58,7
Enough	26	56,5	16	34,8
Less	14	30,5	3	6,5
Total	46	100	46	100
P *Value =0,00*	*a = 0,05*			

Based on table 4 below, shows that before being given education, most respondents had poor knowledge (30.5%), amounting to 14 respondents. After being given education, good knowledge increased to 58.7% (27 respondents) and sufficient knowledge for 16 respondents, amounting to 34.8%. Based on the results of the analysis test using the Wilcoxon test, it showed a sig value of 0.000.

DISCUSSION

Nutritional Fulfillment Behavior in Stunting Prevention Efforts Before Being Given Balanced Nutrition Education

Based on table 4 above, shows that before being given education, the respondents with a low level of behavior (56.5%) were 26 respondents. Prospective brides are part of the group of women of childbearing age who need to prepare their nutritional adequacy because optimal nutrition in prospective mothers will affect the growth and development of the fetus, the health condition of the baby born, and the safety during the birth process. Preconception nutritional status is one of the factors that can affect the condition of pregnancy and the well-being of the baby. The health and nutritional status of pregnant women are determined long before, namely during adolescence and adulthood before pregnancy or during being a woman of childbearing age (Doloksaribu, 2019).

The nutritional status of the prospective mother during the three to six months of the preconception period will determine the condition of the baby born. So far, efforts to improve nutrition have been carried out when the mother is already pregnant, so it would be better if nutrition education, especially in preventing stunting, was carried out when the mother is not yet pregnant and is prepared for her pregnancy. Prospective mothers who suffer from anemia, malnutrition, or drastic weight loss during pregnancy will increase the risk of the prospective baby experiencing growth disorders. Comprehensive maternal nutritional interventions that begin during the preconception period or early pregnancy will result in greater length and weight of newborns and can reduce the incidence of stunting to a lower level compared to mothers who receive standard care (Fauziatin, 2019).

This improved growth pattern has an impact on infants during postnatal growth, even though there is no postnatal intervention for either the mother or the infant. In addition to pre-pregnancy nutrition, the growth period in the first 1000 days of life is also important in preventing stunting. Therefore, multi-micronutrient supplement intervention as a stunting prevention program targeting prospective brides and pregnant women is very important (Krebs, et al 2021).

Nutritional Fulfillment Behavior in Efforts to Prevent Stunting After Being Given Balanced Nutrition Education

Based on table 4 above, it shows that after being given education, good knowledge increased to 58.7% of 27 respondents. Providing nutritional interventions is not enough to prevent stunting because it must be followed by changes in community behavior that can be done through interventions in the form of education. Information in health education can change mindsets for the better so that there is a change in attitude (Lewa, 2021).

This is by the theory put forward by Azwar that personal experience, culture, other people, mass media, institutions or religious institutions, and individual emotional factors are factors that can influence the formation of attitudes. Rusmiati and Hastono stated that the formation of attitudes begins with knowledge that is perceived as positive or negative, then internalized in a person. In addition, the increase in positive or good attitudes is due to information when providing health education, which suggests that fulfilling nutrition to prevent stunting is important. Efforts to increase knowledge can be made by providing nutrition education or counseling so that it can encourage someone to change their attitudes and behavior. Maternal education can be a predictor and can be modified to increase growth and reduce the incidence of stunting (Unicef, 2017).

Other studies show that there is a change in knowledge and attitudes of prospective brides and grooms after being given nutrition education, where on average respondents have started to improve their diet to prepare for pregnancy from the nutrition education that has been given previously. Health education aims to increase knowledge so that they can change behavior towards a healthier life.

The Influence of Balanced Nutrition Education on Nutritional Fulfillment Behavior in Efforts to Prevent Stunting in Preconception Women

Based on the results of the analysis test using the Wilcoxon test, the sig value is 0.000.

Preconception health is part of the overall health of women and men during their reproductive period. Preconception health care is useful for reducing risks and promoting a healthy lifestyle to prepare for a healthy pregnancy. Comprehensive preconception health includes reproductive life planning related to postponing pregnancy, obstetric history, nutrition, vaccination, sexual health, chronic medical conditions, current medications, psychosocial health, and contraception. Pregnancy that is not well prepared is at risk of pregnancy problems that will affect the baby that will be born later. Conversely, a well-planned pregnancy will have a positive impact on the condition of the prospective mother and fetus (Yulivantina, 2021)

Research by Patata et, al (2021) shows that there is a change in the knowledge and attitudes of prospective brides and grooms after being given nutritional education, where on average respondents have started to improve their diet to prepare for pregnancy from the nutritional education that has been given previously. Health education aims to increase knowledge so that it can

change behavior towards a healthier life. Prospective brides and grooms with good knowledge will influence their attitudes and behavior in preventing stunting (Rusman, 2020). This is also supported by the research results of Sumarmi, et al. showing that multi-micronutrient supplements given since preconception can reduce the incidence of stunting compared to iron folate supplements given only during pregnancy. Provision of multi-micronutrients since preconception can prevent stunting since the baby is born.

CONCLUSION

Preconception nutritional preparation for prospective mothers is very necessary in preventing stunting. Balanced nutritional education in the future should be started since adolescence, not only focusing on pregnancy, after the baby is born, toddlers, and young children. Interventions for prospective mothers can also be done by providing education about nutrition, reproductive health, and about 1000 HPK to increase the knowledge of prospective mothers in preventing stunting.

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