

## EDUCATION OF MAKING ROTO SNACK AS A NUTRITIONAL AND DELICIOUS LOCAL FOOD SNACK FOR PREGNANT WOMEN

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### ABSTRACT

Stunting is a condition of growth disorders caused by lack of nutrition and health problems that occur in the long term. Stunting needs to be prevented early on because stunting can have a negative impact on children's growth and development which tends to be irreversible. Provision of nutritious, tasty, and affordable food is one of the efforts that can be done to prevent stunting during pregnancy. Based on this, we chose partners in Posyandu Melati IX, Bedahan Village, Sawangan District, Depok City which is also a location with a priority stunting prevalence. The activity was carried out at partner locations, namely PPosyandu Melati IX, Bedahan Village, Sawangan District, Depok City. The activity was carried out in June 2022. The targets of this community service activity are cadres and pregnant women in Posyandu Melati IX, Bedahan Village, Sawangan District, Depok City. This Community Development activity is carried out in several stages consisting of: 1) Identification of Partner Needs; 2) Review of materials according to the needs of Partners and Creation of Educational Materials, 3) Educational Activities and Practice Making Menus and Evaluation of a nutritious menu. Based on this activity, it can be concluded that nutrition education activities about making nutritious menus is one thing that can be done as an effort to prevent stunting. ROTO snack is an alternative snack menu that pregnant women can choose as a nutritious menu with eggs and other animal ingredients as the main ingredients, easy to make, delicious and affordable. Based on the preference test, it was found that the participants liked the ROTO snack in terms of texture, taste, portion size, cleanliness, and color.

**Keywords:** Education, Menu, Pregnancy, Stunting

### 1. BACKGROUND

Stunting is a condition characterized by an inappropriate growth in length or height of children under five compared to normal growth standards. Stunting is caused by lack of nutritional intake and health problems that occur over a long period of time (de Onis & Branca 2016; TNP2K 2017). Factors that can cause stunting include nutritional intake and health status as direct factors and health services, parenting patterns, food availability, and environmental sanitation conditions as indirect factors (TNP2K 2018, Bappenas 2018). Stunting needs to be prevented early on because stunting can have a negative impact on children's growth and development which tends to be irreversible (Beal et al. 2018; Titaley et al. 2019; Raiten & Bremer 2020). If allowed to occur in the long term, stunting can have an impact on the cognitive abilities, productivity and health status of children in the future which will affect the quality of human resources (Vaivada et al, 2020).

Some of the efforts that can be done are preventive activities carried out since before marriage through the prevention of anemia in adolescents. Prevention of stunting is also carried out in the next phase, namely the fulfillment of adequate nutritional intake during the pregnancy period to prevent anemia and Chronic Energy Deficiency (KEK) conditions, and continued during the breastfeeding period and the provision of complementary feeding (MP-ASI) (BKKBN. 2021). Provision of nutritious, tasty and affordable food is one of the efforts that can be done to prevent stunting during pregnancy. The pregnancy period is one of the critical periods in fetal growth and development, because if during this period nutritional intake is not in accordance with the needs, there will be a risk of low birth weight babies (LBW) which will also be at risk of stunting (de Onis & Branca 2016; TNP2K 2018). Currently, activities to accelerate stunting reduction are also a priority in Indonesia, which are embodied in Presidential Regulation (Perpres) No. 72 of 2021 concerning the Acceleration of Stunting Reduction.

Currently, the prevalence of stunting in Indonesia based on the Indonesia Nutrition Status Survey (SSGI) data in 2021 shows that stunting still occurs around 24.4% of children under five in Indonesia. Depok City has a stunting prevalence of 12.3% (Kemenkes RI 2021). Based on this, we chose partners in Posyandu Melati IX, Bedahan Village, Sawangan District, Depok City which is also a location with a priority stunting prevalence. The Bedahan Village is one of 10 sub-districts that are included in a special location for handling stunting reduction in Depok. Currently, there are various stunting prevention programs in the Bedahan village, Sawangan Depok. Program enrichment in Posyandu is needed, especially in relation to strengthening stunting prevention programs starting from gestational age. Some of these activities will be enriched by us related to making nutritious menus for pregnant women as an effort to prevent stunting.

Based on the problems experienced by partners, there are several solutions offered, including: 1) Education on the use of local food for making delicious and affordable nutritious menus, 2) Training on making nutritious menus for pregnant women using local food ingredients, and 3) making of one of the nutritious snack menus for pregnant women as an effort to fulfill nutritional intake.

**2. METHOD**

The activity was carried out at partner locations, namely PPosyandu Melati IX, Bedahan Village, Sawangan District, Depok City. The activity was carried out in June 2022. The targets of this community service activity are cadres and pregnant women in Posyandu Melati IX, Bedahan Village, Sawangan District, Depok City. This Community Development activity is carried out in several stages consisting of:

**First Stage (Identification of Partner Needs)**

This first stage is a program preparation that begins with obtaining permits, coordinating with partners including posyandu, village midwives and the Rumpin sub-district health center. Next, target identification will be carried out with an initial approach to cadres and village midwives who are difficult to identify problems and obtain data on the number of pregnant women in Bedahan Village as well as a description of stunting conditions. Identification activities are also carried out through secondary data obtained from stunting prevalence data which is the locus of stunting in Depok City.

**Second stage (Review of materials according to the needs of Partners and Creation of Educational Materials)**

This stage is the creation of materials that will be used during education and training. This is based on the results of joint discussions between a team of lecturers and students together with village cadres and midwives regarding the needs of the target audience and local food ingredients that can be used during demonstrations of making balanced nutritious menus. The activity continued with the creation of educational materials and educational media as well as developing the training methods to be used. After all the materials and media are ready for use, a trial of educational models, training and questionnaires for the target is carried out. The results of the trial were evaluated and improved on the media to be used

**Third stage (Educational Activities and Practice Making Menus and Demos of a nutritious menu)**

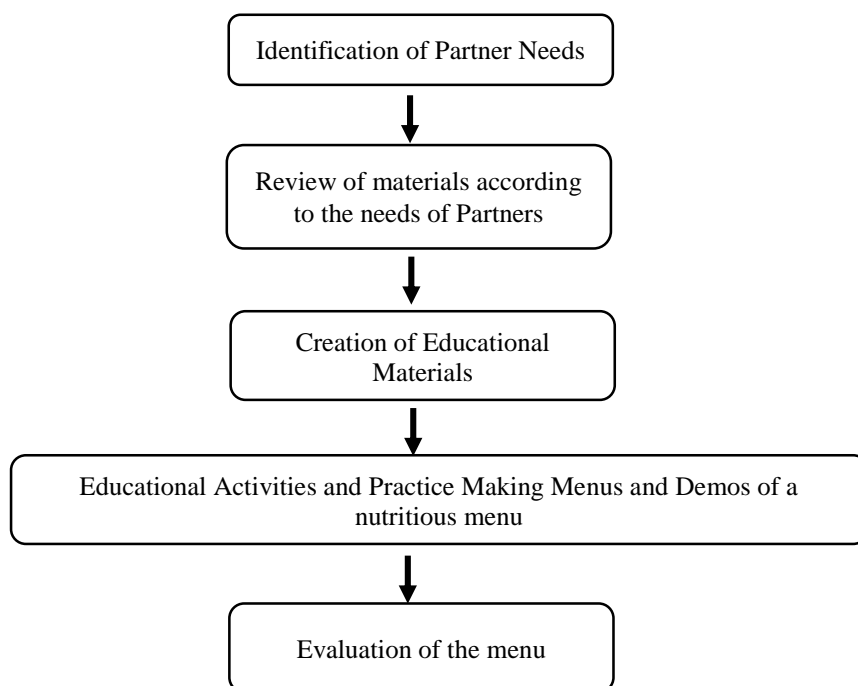


Figure 1. Stages of Educational Activities for Making Nutritious Menus for Pregnant Women

Educational activities provided to partners with an active participation method involving partners in discussions. Education is provided using materials that have been prepared and followed by a discussion session about the material provided and sharing about what partners have done related to the topics given by the team of lecturers and students. The education provided included the use of local food to make nutritious and affordable menus, training on making nutritious menus for pregnant women using local food ingredients, and a demonstration of a nutritious snack menu for pregnant women as an effort to fulfill nutritional intake. Evaluation The prepared menu is a menu that is in accordance with the principle of balanced nutrition containing carbohydrates, protein, fat, vitamins, minerals and water according to the needs of pregnant women. In addition, the menu that is made is also in accordance with the typical local food at partner locations. The practice of making menus is carried out in order to improve the ability of cadres and pregnant women in making delicious and affordable balanced nutrition menus in the form of snacks made from local food at partner locations. The snacks made are expected to fulfill nutritional intake for pregnant women. Menu evaluation was carried out using a questionnaire distributed to participants. the questionnaire includes several menu indicators, namely 1) taste, 2) large portion, 3) texture, 4) color and 5) cleanliness. Menu assessment was carried out using a five-level preference scale, namely: very dislike (1), dislike (2), normal (3), like (4) and really like (5). The scores obtained were then averaged to obtain the overall evaluation score of all participants.

**3. RESULT AND DISCUSSION**

Based on the results of the activities that have been carried out, there are several results obtained based on the methods that have been prepared, namely: 1) Identification of partner needs, 2) Review of materials according to partner needs, 3) Preparation of educational materials; 4) Educational Activities, 5) Menu Making Practices and a demonstration of a nutritious menu, and 6) Menu evaluation. Identification of partner needs is carried out through discussions with relevant stakeholders such as the Chair of the Posyandu, RT and the Bedahan Village Party. Based on this identification, it was found that in surgery there are several stunting prevention programs that are in line with the activities that will be carried out by the nutrition lecturer team. Some of the things that are part of the program include providing additional food for pregnant women and target families, education for pregnant women, as well as weighing and checking the health of pregnant women regularly. The identification discussion can be seen in Figure 2 below.



Figure 2. Discussion with the posyandu chair partner

Based on the results of the identification of the problems found, the lecturer team reviewed the materials and prepared educational materials that were used as educational media to target pregnant women in partner locations. Based on the results of the review and preparation of materials that have been carried out in the form of PPT and one pocket book material that is given as an educational medium. The material presented was material with the topic of Making a Balanced Nutritious Menu for Pregnant Women and Pocket Books compiled by a team of lecturers and students of the Nutrition Study Program. The PPT and the pocket book used can be seen in Figure 3 below:



Figure 3. PPT materials and pocketbooks used as educational materials

The next activity is education and the practice of making nutritious menus that have been carried out at partner locations. This activity involved a student team consisting of three nutrition study students. The educational activity began with the provision of material by Mrs. Almira Nuraelah, SGz, MSi, followed by the provision of material by Mr. Khoirul Anwar, SGz, Msi followed by the practice of making nutritious menus for pregnant women. The menu made on this occasion is ROTO SNACK which is a nutritious snack dish with local ingredients which is a source of various types of nutrients for pregnant women. Educational activities and practice of making menus can be seen in Figure 4.



Figure 4. Educational activities and practice of making nutritious menus for pregnant women

ROTO Snack (Roll Toast Snack) is a homemade snack food menu for pregnant women. This menu is like a sandwich, with modified flat bread, covered in egg, stir-fried chicken and sausage, vegetable Kool and lettuce, combined with bangkok chili sauce that is not too spicy, to beautify the appearance made in the form of a roll. Menu modifications are made to increase the appetite for balanced and delicious nutritious snacks, especially for pregnant women. Details of ROTO Snack and its nutritional content can be seen in Figure 5 below.



Figure 5. ROTO Snack and its nutritional content

Based on the menu evaluation activities carried out, the results showed that participants had a level of preference with a value of 4 (likes) on the taste, large portion and cleanliness of the ROTO Snack. The highest value was obtained for texture with a value of 4.3 out of a maximum value of 5, and the lowest value was obtained for the color indicator with points of 3.9 out of a maximum value of 5. Based on these results, it can be concluded that participants liked the menu made by the community service team. Improvements need to be made to the color indicators to make them more attractive. Details of menu evaluation values can be seen in Table 1 below:

Table 1. Evaluation of the ROTO Snacks preference test (maximum value of 5)

<i>Indicators</i>	<i>Value</i>
Taste	4
Large portion	4
Texture	4,3
Color	3,9
cleanliness	4,1

#### 4. CONCLUSION

Based on this activity, it can be concluded that nutrition education activities about making nutritious menus is one thing that can be done as an effort to prevent stunting. Education on making nutritious menus can be done through the practice of making menus while also evaluating the menu preference test to find out whether the menu made can be well received by the participants. ROTO snack is an alternative snack menu that pregnant women can choose as a nutritious menu with eggs and other animal ingredients as the main ingredients, easy to make, delicious and affordable. Based on the preference test, it was found that the participants liked the ROTO snack in terms of texture, taste, portion size, cleanliness, and color.

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