

## Implementation of Balanced Nutrition Literacy in Vulnerable Groups in the Community Health Centre (*Puskesmas*) Cipadu Work Area

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### Abstract

Nutrition is one of the factors in the rate of adequate growth and development. Balanced nutritional needs are needed to maintain and maintain health for mothers and children. The purpose of community service activities is to increase the knowledge of pregnant, and lactating women, and mothers who have children aged 6-24 months. The methods used are lectures, Focus Group Discussions (FGD), and cooking demonstrations. With a total of 8 respondents consisting of 3 pregnant women, 3 breastfeeding mothers, and 2 mothers under five in the Cipadu Health Center area. This activity begins with three stages, namely the preparation, implementation, and evaluation stages. The results of the activity, it was carried out well because it could determine whether parents understood the nutrients for pregnant and lactating women and the provision of good and correct complementary feeding. This service can show a change in behavior and an increase in young mothers' knowledge about nutrition for pregnant and lactating women and the provision of complementary feeding.

**Keywords:** Community Service, Pregnant Women, Exclusive Breastfeeding, MP-ASI

### INTRODUCTION

Balanced nutrition is a daily diet with appropriate amounts and types of nutrients based on the body's needs by observing physical activity, food diversity, clean and healthy living behavior, and monitoring weight regularly (Almatsier, 2019; Kemenkes RI, 2014). Nutrition is one of the factors that can affect children's growth and development rate. Providing good nutrition can stimulate growth and adequate development in children. If untreated earlier, malnutrition can inhibit growth and development into adulthood (Ulfa, 2012). An imbalance in dietary intake causes malnutrition. If malnourished children are not treated early, it will increase their risk of morbidity and mortality (Septikasari, 2018).

The World Health Organization (WHO) recorded that 51% of mortality in children under five years old is caused by diarrhoea, pneumonia, measles, and malaria. Most of the mortality in children is associated with nutritional problems. In 2018, more than 40 million were obese, and more than 49 million

were underweight, and 17 million were severely underweight children from all over the world younger than five years old (WHO, 2018). Indonesia Basic Health Research (Riskesmas) 2018 stated that 17.7% of children had nutritional problems, with 13.8% categorized as malnutrition and 3.9% as severe malnutrition. Currently, Indonesia is facing a serious problem related to children's nutrition.

Indonesia Basic Health Research (Riskesmas) 2013 stated that about 50% or one in two Indonesian pregnant women do not meet their nutritional needs. Nutritional intake in pregnant women is crucial in fulfilling their nutrition and supporting the growth and development of the fetus. Food dominates nutritional intake. Hence, pregnant women must choose the right type of food to fulfill their nutritional needs. Pregnant women need nutrients, and if the mother lacks nutritional intake, it will cause fetal growth and development to be disrupted. Malnourished pregnant women affect growth and cause miscarriages, congenital disorders, abortions, and low fetal weight. Contrarily, excessive food intake in pregnant women can cause the baby to

gain excess weight and can cause preeclampsia. Therefore, monitoring health, such as nutritional intake and weight during pregnancy, is essential (Zulhaida, 2005).

Infants aged 0-6 months must be given exclusive breastfeeding because breast milk contains antibodies that protect babies from infectious diseases. Breast milk also benefits mothers in preventing bleeding, anemia, and breast carcinoma, increases self-confidence, and accelerates uterus involution. (Nugroho, T. 2011). The quantity of breast milk consumption is as important as the quality. Quality of nutrition determines breast milk quantity and quality, which is also affected by the mother's eating habits, frequency, and good income. The fulfillment of breastfeeding in Indonesia is still far from the target, especially when there was a decline in exclusively breastfed babies by 54.0% in 2016 (Kemenkes RI, 2016). Based on research by Prabiswi et al. in 2015 stated that the failure of exclusive breastfeeding is caused by mothers who believe that their breast milk is not enough to fulfil their children's needs. The perception of insufficient breast milk causes 35% of breastfeeding mothers to give additional food before the baby is 6 months old. The failure was caused because of the lack of understanding about exclusive breastfeeding.

However, breast milk cannot continuously meet the baby's nutritional needs. Thus, after 6 months, it is necessary to give them complementary food to meet their nutritional needs. Complementary food is food or drinks with nutrients to fulfill infants' nutritional needs. Complementary food cannot be introduced and given carelessly and must be done gradually following the baby's nutritional needs and digestive readiness. The portion, type, and frequency of complementary feeding can be adjusted based on age and readiness.

Good quality complementary feeding increases the growth and development of children to adulthood. However, it is essential to know the conditions that must be met in complementary feedings, such as having a composition of macronutrients (energy, protein, and fat) and micronutrients (vitamins and minerals) based on their needs. Complementary foods must contain 1.8-4.0 grams of protein per 100 calories and 3.3-6.0 grams of fat per 100 calories will be easy to digest and absorb, have a high nutrient density (small volume with optimal nutrients), have a high biological quality of nutrients, good quality of organoleptic based on children's sensory development, safe or hygienic, and easy to prepare. Rozanna, 1998).

The results stated that most breastfeeding mothers had not provided adequate complementary feeding to their babies due to the lack of understanding about the correct principle of complementary foods. Lack of knowledge about complementary feeding and harmful habits can directly or indirectly cause nutritional problems in children. Thus, mothers need a proper understanding to give appropriate complementary feeding. If mothers understand complementary feeding well, they will be encouraged to give it properly and correctly.

Counselling is a way to educate young mothers about nutrition for pregnant and breastfeeding women and how to breastfeed and give complementary food. Counselling maternal knowledge is essential to improve society's health. Counselling about complementary feeding was conducted for pregnant, breastfeeding, and mothers with babies aged 6-24 months. Based on the description, this community service aims to increase the understanding of pregnant, breastfeeding, and mothers with babies aged 6-24 months about complementary feeding.

## **METHOD**

### **Subject**

The subjects in this community service were young mothers aged <20 years old who were pregnant, breastfeeding, and had babies aged 6-24 months in the Puskesmas Cipadu working area. There were 8 respondents consisting of 3 pregnant women, 3 breastfeeding mothers, and 2 mothers with babies.

### **Location**

The activity was conducted in the Puskesmas Cipadu meeting hall, Larangan Sub-district, Tangerang.

### **Methodology**

This study used counselling techniques with the lecture method. The preparation stage started with acquiring permits from the community health center (PUSKESMAS) and preparing the required instruments, media, and equipment such as questionnaires, teaching properties (Food Model), and media (leaflets and power points). Media leaflets containing the same counselling material will be given to participants as learning materials. The general steps of the counselling process:

- Explaining learning material about important food substances, including the function of nutrition in the body in supporting the metabolism of the human body
- Explaining food sources, including nutrients from vegetables and animals. This activity was assisted by lecturers and college students
- Simulating implementation of food portions. This activity was assisted by lecturers and college students

The counselling of balanced nutrition followed the 4 pillars principle, such as consuming various foods, clean living behavior, physical activity, and monitoring body weight. In the counselling, respondents were given varied tips on healthy eating patterns following the 'tumpeng gizi seimbang.'



**Figure 1.** Healthy eating patterns “Tumpeng Gizi Seimbang”

After the counselling, a pre-test and a post-test using a food model were conducted to determine the difference in understanding and changes in perception. The pre-test and post-test consist of various food ingredients, and participants must choose and classify food ingredients with certain nutrients value. The post-test results determine the impact of counselling conducted. Focus Group Discussion (FGD) was required to determine the result of the counselling. Participants participated quite actively and were very open in sharing their experiences.

## RESULTS AND DISCUSSION

### Preparation Stage

This stage consists of processing permits for the community health center, preparing instruments and electronic equipment such as laptops and LCDs, and the media such as leaflets and power points.

### Implementation Stage

The first implementation stage involved discussions and socialization with related parties such as cadres and the community health center. Afterward, socialization was carried out for young couples and young mothers. The activity arrangement consists of the following:

- Counselling about nutrition for pregnant women, exclusive breastfeeding, and complementary feeding
- Demonstrate how to breastfeed properly and correctly
- Making food products for pregnant women, breastfeeding mothers, and complementary foods based on portion, texture, and others.

### Evaluation Stage

The evaluation stage was conducted after the mothers properly understood the counselling material, using a pre-test. This stage aims to determine the mother's knowledge

level before and after the counseling. Young mothers were given leaflets containing the presented material.

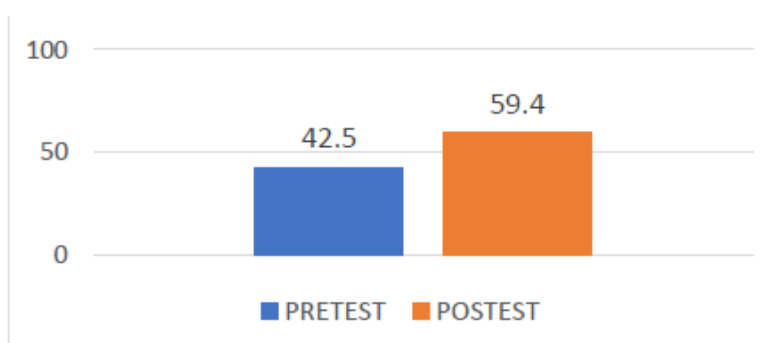


**Figure 2.** Counseling about 'Gizi Seimbang'

Their experience and knowledge are closely related to preparing and choosing good and correct food for pregnant women, breastfeeding mothers, and complementary feeding. This study found that there were still mothers who did not understand complementary feeding properly and correctly. Thus, cadres need to do socialization and assist mothers in providing complementary foods.

Moreover, this research found that there was an influence on the mother's knowledge after the counseling, which allowed them to classify food ingredients according to their nutrients. Their improvement in understanding would be helpful in the future.

Counseling is introducing objects and demonstrating processes to be understood by mothers (Syaiful S, 2011). Therefore, demonstrations were carried out on preparing and making foods for pregnant women, breastfeeding mothers, and complementary feeding by explaining the ingredients, types, and methods so mothers could understand and apply them at home. The participants are very interested in the activities and materials presented with the lecture method. The more information and knowledge mothers have about complementary feeding, the better they are at providing complementary foods. A good level of maternal knowledge was expected to change food consumption patterns and improve nutritional status. After conducting activities to improve the knowledge and understanding of respondents about balanced nutrition, the improvement of respondents can be seen from the pre-test and post-test results.



**Figure 3.** Pre-test and Post-test results

The pre-test and post-test results showed an increase in understanding in pregnant and breastfeeding women from 42.5% to 59.4% after the counseling. The results of the pre-test and post-test mean that there is a significant increase in knowledge before and after the counseling. Before the counseling, the level of knowledge only reached 42.5%, and after counseling, it increased to 59.4%.





**Figure 4.** Pre-test and Post-test about food ingredients

Previous studies about balanced nutrition counseling revealed increased participant understanding (Purba et al., 2020; Supriyatni et al., 2020; Utaminingtyas, 2020; Afriani et al., 2022). Most participants have a low level of education, which means that a level of education in mothers can affect their knowledge about balanced nutrition.

### CONCLUSION AND RECOMMENDATION

The community service activities were conducted properly and smoothly based on the prepared schedule. Based on the results, it can be concluded that nutrition counseling for pregnant women, breastfeeding mothers, and mothers with babies has a positive impact on the community because they can now understand the importance of nutrition and the right way to apply it in daily life. Successful implementation of good food intake needs assistance from cadres and health workers of the posyandu, and everyone's enthusiasm in providing adequate food intake to pregnant women, breastfeeding mothers, and mothers with babies.

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