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Administration Of Moringa Leaf Meatballs to Prevent Stunting in Toddlers

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Abstract

The problem of malnutrition in Indonesia can have a serious impact on the decline in the quality of Human Resources (HR). One of the problems of malnutrition is the high number of cases of stunting children under five, stunting can be said to be toddlers who experience chronic nutrition due to low nutritional intake, and the lack of knowledge of housewives in meeting the availability of nutrition in the family. This community service activity aims to provide education through health promotion to parents of PAUD children about stimulating healthy menu choices for PAUD children in preventing stunting. This activity was carried out at PAUD Melati in West Bandung, involving children, parents, and school stakeholders. Starting with the introduction of food ingredients, demonstration of making Moringa Leaf Pentol, education about nutrition to parents. The results of the activity showed that during the implementation, children showed high interest in making Moringa Leaf Pentol, especially when they saw interesting shapes and colors. Parents were also seen actively participating in the activities and giving full attention to the nutrition education provided.

Keywords: stunting, nutrition, toddlers

Introduction

Toddlerhood is one of the most important phases for human growth and development. In the toddler period, there is rapid growth and development and will affect later life. The continuity of growth and development of toddlers is influenced by nutritional status. The nutritional status of toddlers is the nutritional condition of children aged 0-59 months determined by anthropometric methods, based on the index of Body Weight according to Age (BB/U), and Body Weight according to Height (BB/TB) [1].

One of the nutritional intakes obtained by infants is by providing adequate food intake such as exclusive breastfeeding until the age of 6 months and complementary breastfeeding (MPAS). Nutrient intake in toddlers is very important in supporting growth so that there is no failure to grow (growth fathering) which can cause stunting. Nutrient intake in toddlers is very important in supporting growth so that there is no failure to grow (growth fathering) which can cause stunting [1].

The high incidence of malnutrition in Indonesia can have a serious impact on the decline in the quality of human resources (HR) because it can cause suboptimal brain development which can hinder the development and growth of both cognitive and motor [2].

One of the problems of malnutrition is the high incidence of stunting among children under five. Stunting is a condition of toddlers who have a length or height that is not proportional to age [1]. This condition is measured by length or height that is more than minus two standard deviations of child growth from the WHO world health agency. These conditions can make children physically grow shorter than normal children their age and have delays in thinking. Thus, stunting can be said to be toddlers who experience chronic nutrition due to low nutritional intake.

Based on the Indonesian Nutrition Status Survey (SSGI), the number of toddlers at risk of stunting in Indonesia in 2022 reached 4.7 million (21.6%), this figure has decreased compared to 2021 by 24.4% from the target of 14% (Ministry of Health, 2023). The 3 (three) regions with the highest prevalence in Indonesia in 2022 are East Nusa Tenggara (35.3%), West Sulawesi (35%) and Papua (34.6%) while West Java ranks 22nd (20.2%) and the lowest is Bali (8%) (Ministry of Health, 2023). The

government has made various efforts to overcome stunting including specific nutrition interventions and nutrition-sensitive interventions. Specific nutrition interventions are carried out to prevent and reduce nutrition problems directly, including activities carried out by providing immunizations, Supplementary Food Provision (PMT) for pregnant women and toddlers at posyandu. However, stunting prevention programs still encounter various obstacles and challenges, especially in rural areas [3].

One of the causes of toddler stunting is the low intake of nutritious food, so that mothers experience nutritional deficiencies during pregnancy and breastfeeding (Komalasari et al., 2020). One of the problems faced in preventing stunting is the lack of knowledge of housewives in meeting the availability of family nutrition. Housewives still think that fulfilling nutrition must be at a high cost. This lack of knowledge makes parents unable to meet children's nutritional adequacy amid low economic capacity. In fact, the knowledge sector and civic culture are the sectors that contribute the most to handling cases of stunting in children [1].

According to Achadi (2020) [4], the factors that cause stunting are divided into 3, namely direct factors, indirect factors and basic causes. The direct causes of stunting consist of infectious disease factors and nutrient intake. Then indirect factors are parenting factors (IMD and exclusive breastfeeding), access to food, access to health services (Immunization), environmental sanitation (clean water sources, places to defecate), child characteristics (birth weight, birth length) and maternal characteristics (maternal height, pregnancy distance, upper arm circumference.

Method

This community service was carried out at Paud Melati 02 School, Tanjung Wangi Village, located in West Bandung, on Thursday, December 19, 2024. This activity aims to provide education through health promotion to parents of PAUD children about stimulating healthy menu choices for PAUD children in preventing stunting, encouraging parents to be more creative in processing healthy food ingredients for their children, especially in a fun and interesting way. Providing alternative healthy snacks that children can enjoy and support their nutritional fulfillment at home.

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Figure 1. Before Extension Activities

The implementation process began with formal licensing with the school, collecting baseline data on children's nutritional needs, and analyzing the data to ensure appropriate interventions. Prior to the intervention, a focus group discussion (FGD) was held involving several stakeholders to determine priority issues that require special attention. On the day of implementation, the activity was attended by the Head of the PAUD Foundation, the Principal, PAUD teachers, and the students involved in this community service program.

Figure 2. Providing Education to Students & Parents

The activity begins with a food introduction session that provides a deep understanding to children and accompanying parents or guardians about healthy ingredients, namely moringa leaves, chicken breast, egg whites and tapioca flour,

introducing the benefits and how to process them into delicious food that is more attractive to children. Students and the service team showed the steps of making Moringa Leaf Pentol in the form of PowerPoint and Video. The demonstration is done in detail, so that parents and children can follow the steps easily.

Figure 3. Demonstration of Making "Moringa Leaf Pentol"

After the demonstration, parents were given an explanation of the importance of the nutrients contained in the food. This includes how to organize a healthy and nutritious diet for children. This education is important to provide parents with an understanding of simple ways to introduce nutritious foods that are easily available and processed at home.

Results

The implementation of community service activities at the Melati PAUD School, West Bandung, on December 19, 2024, successfully achieved the stated objectives, namely providing education through health promotion to parents of PAUD children about stimulating healthy menu choices for PAUD children in preventing stunting, encouraging parents to be more creative in processing healthy food ingredients for their children, especially in a fun and more interesting way, providing alternative healthy snacks that children can enjoy and support their nutritional fulfillment at home. The following are the results of the activity, along with a discussion of the impact and

benefits of providing Moringa Leaf Pentol.

The first activity was the introduction of food ingredients. The activity began with the introduction of healthy ingredients, namely moringa leaves, chicken breast, egg whites and tapioca flour. Children and parents were introduced to the benefits of these food ingredients and simple ways to process them into delicious and more interesting food for children.

The food introduction session was enthusiastically attended by children, parents, and PAUD teachers. The material presented, the benefits of food ingredients and simple ways of processing them succeeded in increasing participants' understanding of the importance of a healthy diet. Most participants expressed a new awareness of how unbalanced nutrition can affect children's growth and development in the long run.

After the counseling session, the activity continued with a demonstration of making Moringa Leaf Pentol. Presented in the form of PowerPoint and video, we gave a demonstration of how to make “Pelor” using natural ingredients such as moringa leaves, chicken breast meat, egg whites and tapioca flour. The demonstration was done in detail, so parents and children could follow the steps easily.

A nutrition education session was presented at the end of the activity, explaining the importance of the nutrients contained in these foods, including how to organize a healthy and nutritious diet for children. This education is important to provide parents with an understanding of simple ways to introduce nutritious foods that are easily obtained and processed at home.

Discussion

The study successfully showed that during the implementation, children showed high interest in making “Moringa leaf pentol”, especially when they saw the interesting shapes and colors. Parents also actively participated in the activity and paid full attention to the nutrition education provided.

After the activity, most parents reported that they plan to try making “Moringa leaf pentol” at home and introduce more vegetables in their children's diet. This shows that this activity not only provides direct benefits in the form of healthy snacks, but also provides an understanding of the importance of nutrition for their children's growth and development.

However, to ensure a wider impact, similar activities should be carried out regularly by introducing various other types of healthy food ingredients that can be processed into attractive snacks for children. Parents need to be more actively involved in the nutrition education process, so that they can become agents of change in shaping children's healthy diets. Continuous nutrition education through various media and activities involving PAUD, medical personnel, and the community is needed to increase awareness of the importance of nutrition in early childhood.

Further research could measure the effectiveness of these snacks in the long term, and evaluate their effect on children's weight gain and nutritional status. It is also important to conduct ongoing education for parents on the importance of nutritious feeding, so that this solution can be adopted consistently in children's daily lives.

Conclusion

This community service activity successfully demonstrated that through the innovation of “Moringa leaf pentol”, children are expected to be more interested in consuming healthy and nutritious snacks. In addition, this activity also provides an opportunity for parents to better understand how to serve nutritious food for their children at home. In the future, it is hoped that this activity can be a useful example in improving the nutritional quality of children in the West Bandung Regency area.

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Conflict of Interest

The authors have no conflict of interest.

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