International Journal of Public Health
Volume. 1 Nomor. 4 Tahun 2024
e-ISSN: 3047-5228; p-ISSN: 3047-5236, Page. 193-198
DOI: https://doi.org/10.62951/ijph.v1i4.225
Available online at : https://international.arikesi.or.id/index.php/IJoPH

The Effect of Healthy Eating Education on the Knowledge of Mothers

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Abstract. The problem of under-five nutrition, especially stunting, is still the focus of the government. Stunting in toddlers can have an impact on physical, mental and emotional development, as well as brain development. Children who suffer from stunting, as adults, will be more susceptible to diseases, both infectious and non-communicable diseases. Jambi Province's stunting prevalence of 13.5% in 2023 has not yet reached the reduction target. Based on SSGI in 2021, the stunting prevalence rate in Jambi City is 14.0%. This study aims to determine the effect of healthy food education on the knowledge of mothers of toddlers. This study is a quasi-experimental study (pre- test and post-test), the respondents were mothers of toddlers in Pinang Merah Village, Jambi City. Data analysis using the Wilcoxon test. The results of the study were an increase in knowledge seen from the results of the pre- test and post-test which statistically proved a significant increase in knowledge (p-value <0.001). It is concluded that there is an effect of healthy food education on the knowledge of mothers of toddlers. It is hoped that local health centers will often carry out counseling or educational activities to the community to increase knowledge, attitudes and behavior so as to increase the degree of public health.

Keywords: Education, Food, Healthy, Knowledge, Mother

1. INTRODUCTION

The nutritional problem of under-fives that the government is currently focusing on is stunting. Stunting is a condition of under-five growth failure that is the result of chronic malnutrition (Pee, et.al., 2017). Stunting affects physical, mental and emotional development, as well as brain development. Children who suffer from stunting, as adults, will be more susceptible to diseases, both infectious and non-communicable diseases (Anggraini, et.al., 2021). Therefore, it is necessary to prevent and overcome stunting by providing nutritious healthy food.

According to the World Health Organization (WHO) in 2022, there were 148.1 million children under the age of 5 who were too short for their age (stunting), 45.0 million children were too thin for their height (wasting), and 37.0 million children were too heavy for their height (overweight) (WHO, 2023). Based on data from the Indonesian Nutrition Status Survey (SSGI) in 2021, the prevalence rate in Indonesia was 24.4%. In 2022, Indonesia succeeded in reducing the stunting prevalence rate by 2.8% to 21.6%, and in 2023 there was an insignificant decrease of 0.1% to 21.5% (Indonesian Ministry of Health, 2023). This figure is still far from the target stunting prevalence rate in Indonesia, where Indonesia based on Presidential Regulation Number 72 of 2021 concerning Acceleration of Stunting Reduction targets a stunting prevalence rate of 14% by 2024 (Perpres, 2021).

Received:October 12,2024; Revised: November 24,2024; Accepted: December 27,2024; Published: December 30,2024

The stunting prevalence rate in Jambi Province in 2021 was 22.4% and decreased to 18.0% in 2022, and 13.5% in 2023. This prevalence rate has also not reached the target of reducing stunting prevalence in Jambi Province, where based on the RPJMD 2021-2026, Jambi Province targets the stunting prevalence rate to be 12% by 2024 (Jambi Provincial Government, 2021). Based on the SSGI in 2021, the stunting prevalence rate in Jambi City was 17.4%, this figure decreased to 14.0% in 2022 (Indonesian Ministry of Health, 2023).

One of the healthy foods based on local food is made from Moringa. Moringa (Moringa oleifera) is one type of plant that is very rich in nutrients. Several previous studies have analyzed the nutritional content of moringa leaves by taking young leaves (2 stalks below the shoot to stalk 9 or 10). The study showed that the content of moringa leaves includes protein (28.25%), Beta carotene (Pro Vitamin A) 11.93 mg, Ca (2241.19) mg, Fe (36.91) mg, and Mg (28.03) mg (Zakaria, et.al., 2013). In addition, the nutritional content of moringa leaves as functional food is complete macro and micro nutrients to maintain health and body stamina (Budiani, et.al., 2020).

One of the areas in Jambi City, namely Pinang Merah Village, there are many Moringa plants planted in the yard of residents' homes (Community). Moringa plants have many health benefits, especially in the leaves, but based on observations, moringa plants have not been maximally utilized by the community as healthy food ingredients. In addition, the community does not know the benefits of moringa leaves for health, including the prevention of stunting in toddlers. Then it is supported by the statement of the community who stated that they had never received socialization, counseling or training on the use of moringa leaves as healthy food.

2. LITERATURE REVIEW

There are several similar previous studies related to counseling or healthy food education on the knowledge of mothers of toddlers. The results of a study entitled education of supplementary feeding based on local ingredients for stunting toddlers with animated media , showed that there was an effect of providing education on supplementary feeding based on local ingredients with the knowledge of mothers of stunting toddlers (Wiliyanarti, et.al., 2022). Furthermore, research by Rehena, et.al. (2020) on the effect of nutrition education on maternal knowledge about stunting in Kamal Village, West Seram Regency found that there was an increase in maternal knowledge with a good score category (> 60) in the posttest compared to the pretest. Next research by Putri, et.al. (2022) on Infant and Young Child Feeding (IYCF)

education to improve the nutritional knowledge of mothers of toddlers at Posyandu Anggrek, South Bogor, West Java showed that there was a significant difference ($p \leq 0.05$) between the knowledge of mothers of toddlers before and after the IYCF education program was given.

3. METHODS

The type of research used is quasi-experimental research using a one-group pretest-posttest design where measurements and observations are made before and after treatment. This study measured the dependent variable as a group before (pre-test) and after (post-test) a treatment was given, then the values before and after treatment were compared.

In this research framework, research participants take a pre-test. first to assess respondents' knowledge about healthy food made from Moringa, then continued by providing education in the form of counseling. Furthermore, respondents will be given a final test (post-test) to assess the effect of healthy food education on changes in respondents' knowledge. The research was conducted in Pinang Merah Village, Jambi City in 2023. The respondents were mothers who had toddlers as many as 30 people. Data analysis was performed using the Wilcoxon test because the data was not normally distributed.

4. RESULTS

The study was conducted on 30 respondents who were mothers of toddlers. The study began with a pre-test to determine the respondents' initial level of knowledge, then continued with the provision of education about healthy food made from Moringa, after which a post-test was conducted to determine changes in the level of knowledge of mothers of toddlers related to healthy food made from Moringa. The level of knowledge of respondents was measured twice, namely before (pre test) and after (post test) providing education about healthy food made from moringa. The results of measuring the level of knowledge before and after providing education can be seen in table 1 below:

Table 1. Pre Test and Post Test Measure Results

Variables	*Mean*	*Min*	*Max*
Pre-test	5,83	4	8
Post-test	8,33	6	10

From the table, it can be seen that the average value (mean) related to the level of knowledge of participants before (pre test) and after (post test) is from 5.83 increased to 8.33. This shows that there is an increase in respondents' knowledge after receiving education on healthy food made from Moringa as an effort to prevent stunting in toddlers.

Next, to determine whether there is a change in the level of knowledge before and after the educational activities on healthy food made from Moringa, the Wilcoxon Test was conducted because the data were not normally distributed. The test results can be seen in table 2 below.

Table 2. Changes in Respondents' Knowledge

	n	**Median (Min-Max)**	**Mean± SD**	**Sig**
Knowledge *Pretest*	30	6 (4-8)	5.83± 0.986	0,001
Knowledge *Posttest*	30	8 (6-10)	8.33±1 ,061	

Based on the analysis results in Table 2, it is known that the Sig (2-tailed) value is 0.001, which means it is still below the significance level of 0.05. This means that there is a significant difference between the average value before socialization activities (pre-test) compared to after socialization activities (post-test). The difference shows an increase in knowledge scores after being given education about healthy food made from Moringa.

5. DISCUSSION

The results showed that there was an effect of healthy food education on the knowledge of mothers of toddlers (p-value = 0.001) with an average pretest knowledge value of 5.83 and an average post-test knowledge value of 8.33. This shows that there is a positive influence in the form of increasing the knowledge of mothers of toddlers after getting education about healthy food made from moringa. This study is in line with research by Wiliyanarti, et.al. (2022) on education of supplementary feeding based on local ingredients for stunting toddlers with animated media, showing that there is an effect of providing education on supplementary feeding based on local ingredients with the knowledge of mothers of stunting toddlers. Likewise, the results of research conducted by Putri, et.al. (2022) on Infant and Young Child Feeding (IYCF) education to improve the nutritional knowledge of mothers of toddlers at Anggrek Posyandu, South Bogor, West Java showed that there was a significant difference ($p \leq 0.05$) between the knowledge of mothers of toddlers before and after the IYCF education

program was given. Also supported by the results of research by Rehena, et.al. (2020) on the effect of nutrition education on maternal knowledge about stunting in Kamal Village, West Seram Regency found that there was an increase in maternal knowledge with a good score category (> 60) in the posttest compared to the pretest. Based on some of the results of this study, it shows that there is an effect of healthy food education on the knowledge of mothers of toddlers.

Education affects the level of knowledge and attitudes of individuals (Amalia, et.al., 2021). Knowledge is something that comes from the five senses and experiences that have been processed by the mind and arise spontaneously, knowledge is also true because it is in accordance with existing reality (Notoadmojo, 2010). Good maternal knowledge about toddler nutrition in the fulfillment of additional food can prevent serious complications in the nutritional status of toddlers and can even improve stunting toddlers regardless of nutritional problems. The positive effect of education on the knowledge of mothers of toddlers is expected to be the first step for mothers of toddlers to prevent nutritional problems in toddlers related to stunting and wasting. This is as it is known that low maternal knowledge can cause children / toddlers to experience malnutrition, due to lack of insight into food ingredients that contain high nutrition so that it will result in the lack of diversity of food given to toddlers. The family, especially the mother, will be more. Thus, the increase in knowledge of mothers of toddlers after getting education about healthy foods can be used as one of the efforts to prevent nutritional and other health problems through promotional activities through health education.

6. CONCLUSION

Based on the results of the study, it is known that there is an effect of healthy food education on the knowledge of mothers of toddlers. It is expected that related parties such as the Puskesmas and the Health Office to routinely provide education / counseling about health including related to healthy and nutritious foods made from local food to meet the nutritional needs of toddlers and the community independently.

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