

Stunting Prevention through Training Processed Cork Fish for Parents in Kenagarian Kinali, Kinali District, West Pasaman

Serli Marlina¹, Pudia M Indika²

¹Early Childhood Education, Universitas Negeri Padang

²Sports Education, Universitas Negeri Padang

Email: serlimarlina@fip.unp.ac.id

ABSTRACT

West Pasaman is the area with the highest stunting cases in West Sumatra. Prevention and handling of stunting cases are dominantly centered in the district in West Pasaman so that areas far from the district center are often unreachable. Poverty arising from this pandemic has triggered an increase in stunting cases in Kinali region. The purpose of the activity is to provide skills related to stunting prevention strategies through processed snakehead fish which can later be applied by child health services (*Posyandu*) cadres during their routine activities and parents in daily life. The implementation method given as the realization of the solution is using the lecture method, problem solving method, direct practice and demonstration. The description of the training activities is to provide counseling, education about stunting and the importance of preventing stunting from an early age. Direct practice activities by demonstrating how to process snakehead fish to prevent stunting.

Keywords: *Stunting Prevention Strategy; Processed Cork Fish; Parent*

1. INTRODUCTION

Stunting is a chronic nutritional problem due to lack of nutritional intake in the long term, resulting in impaired growth in children. Stunting is a chronic nutritional problem due to lack of nutritional intake for a long time [1]. Stunting is also one of the causes of stunted children's height, so that the children who are stunting are shorter than children their age. This stunting case is also found in West Sumatra. One of the areas with the highest stunting cases in West Sumatra is the West Pasaman Regency. The results of the annual recap of the nutritional status of toddlers in the 2020 ePPGBM, obtained stunting under five in West Pasaman district of 20.5%. This figure is higher than the prevalence of stunting in 2019 [2]. Prevention and handling of stunting cases are dominantly centered in the district so that areas far from the district center are often unreachable. Especially during this pandemic, training activities are limited. The activities for preventing stunting cases is also hampered during covid Pandemic. In fact, poverty arising from this pandemic has triggered an increase in stunting cases in Kinali Village.

One solution for stunting can be by consuming fish. The best fish to eat for stunting prevention is snakehead fish. Snakehead fish has a higher nutritional content, especially compared to other animal foods such as eggs, chicken and meat [3]. The protein content in wet

snakehead fish is 19.26% and dry is 79.9% [4]. [5] found that the protein content in wet snakehead fish was 25.5%. Snakehead fish contains a number of other micronutrients such as amino acids, albumin and essential fatty acids. The essential amino acid content of snakehead fish is arginine 1.34%, alanine 1.32%, tyrosine 0.67%, methionine 0.62%, valine 0.85%, phenylalanine 0.84%, isoleucine 0.85%, leucine 1.13% and lysine 1.67% [4]. The essential amino acids arginine and histamine are very important for growth in children [6]. Arginine is very important for children to increase the production of growth hormone. Lysine functions as the basic ingredient of blood antibodies, strengthens the circulatory system, maintains normal cell growth, together with proline and vitamin C will form collagen and reduce excessive blood triglyceride levels [7]. Snakehead fish also contains non-essential amino acids such as glutamate which is the highest at 2.94% and aspartic acid at 1.90%. Glutamic acid and aspartic acid are important because they create the characteristic aroma and taste of food [8].

The results of material analysis in this study also found albumin content of 14.65 ug/g in snakehead fish. Albumin is one type of protein that is very important to protect children from infectious diseases [9]. Lack of albumin in the body causes the transportation of nutrients in the blood to be less smooth and tissue cells. Children who are a lack of albumin cause a decrease in their immune system so they are at risk of suffering from a disease. The results of previous studies showed that the use of local food products or substituted for

local foods was proven to improve the nutritional status of undernourished children under five. Giving PMT for 2 months has an effect on changes in the nutritional status of malnourished children under five. The provision of local supplementary food enriched with animal and vegetable protein in undernourished children under five can improve nutritional status. Based on interviews with community leaders. In Kinali, snakehead fish is easily and cheaply obtained by local people because this fish lives in swamp and forest areas in Kinali. However, the fish is consumed as a side dish only. The appearance is ordinary and unattractive so that this fish is not very liked by the public, especially children. While this fish has high nutritional value and is able to prevent stunting. For this reason, this community service will later discuss the Stunting Prevention Strategy through processed snakehead fish with the aim of helping to solve health problems in Kinali District.

Based on the analysis of the situation above, the descriptions of the partner problems found are: a. The results of interviews with community leaders to Nagarian Kinali and data on nutritional status of children under five that stunting cases in their area are still high, b. There is no training related to stunting prevention in the Kinali Nagari community. What is often carried out is stunt handling activities, which are carried out predominantly in the district so that areas far from the district center are often unreachable.

The solutions offered are providing knowledge related to stunting prevention strategies through processed snakehead fish. The output of this solution is in the form of one scientific article published in a national journal and one article in mass/electronic media. Another solution is by giving skills on how to make processed snakehead fish to prevent stunting. The output of this solution is an activity video with a maximum duration of 5 minutes, the additional output is an increase in the application of science and technology in the community and processed snakehead fish recipes.

2. RESEARCH METHOD

The implementation method given as a realization of the solution in the Community Service program is using the lecture method, problem solving method, direct practice and demonstration. The description of the training activities is as follows: a. provide counseling, education about stunting and the importance of preventing stunting from an early age. b. Direct practice activities by demonstrating how to process snakehead fish to prevent stunting.

3. IMPLEMENTATION AND RESULTS

The Stunting Prevention Strategy Training event through Processed Snakehead Fish for Parents in Nagarian Kinali, Kinali District, West Pasaman Regency was held on 29 June, 6 - 27 July 2021, at the Walinagari Office, Kinali District. The participants were 25 people,

consisting of kindergarten teachers throughout Kinali District. The results of the implementation of this community service are: 1. Increased parental insight in stunting prevention strategies through processed snakehead fish for parents throughout Kinali District, Kinali District, providing counseling, education about stunting and the importance of preventing stunting from an early age. 2. Direct practice activities by demonstrating how to process snakehead fish to prevent stunting provide skills to parents, so that various creations from processed fish appear. 3. The results are increased insight and skills due to the transformation of science and technology between health practitioners, AUD education practitioners and parents.

Registration of participants will be held on June 29, 2021, at 08.00-09.00 WIB.

Opening At 09.00 WIB the event was opened by the MC and the reading of the holy verses of the Koran from one of the parents (participants). The event was continued with a word by the Wali Nagari. Kinali hoped that training activities for parents in Kinali District through collaboration with UNP lecturers could be developed and continued for the future. At 09.15 WIB a word was also conveyed by the Chief Executive who explained the purpose of the event, the target of the event and the importance of the training event for the participants.

Core activities

The core activity is counseling in the form of seminars and presentations from three resource persons. Followed by a question and answer session at the end of each presentation section, as well as demonstrations.

Counseling

Counseling in the form of seminars and presentations was delivered by the resource persons/instructors as follows:

Day One: "The problem of stunting in West Pasaman District", discussed stunting data in West Pasaman, the causative factors and government policies.

Day Two: "Stunting Prevention Strategy" discusses how stunting prevention strategies have been carried out in various regions.

Day Three: "Prevention of stunting by families" discusses how families prevent stunting by families.

Day Four: "Snakehead Fish, its benefits and preparations" the activity is to explain what snakehead fish is, where it can be obtained, its benefits and preparations

Fifth Session: "Demonstration of making processed snakehead fish" demonstrates how to process snakehead fish into nutritious food that is liked by children.

4. DISCUSSION/QUESTION AND ANSWER

Discussion / question and answer activities were carried out after the counseling session. In this section, participants are given the widest opportunity to provide responses and questions related to the subject and its application in teaching

and learning activities. After completion the instructor provides input, improvement and enrichment.

Supporting and Inhibiting Factors 1. Supporting Factors a. The Wali Nagari Kinali and the head of the puskesmas responded positively to the activities carried out and gave full support by facilitating communication with various parties and participants. b. The response of the participants was very good, making it easier for the instructor to provide training. c. The participants have a high desire and enthusiasm to learn and are willing to develop themselves to get a special skill. This can be seen from the spirit of learning and cooperation during the activity.

Inhibiting Factor a. The large number of parents who have a high school education background and the low number of early childhood education graduates have an impact on the slow response to receiving training materials. b. The lack of related training so that the child health centre (posyandu) cadres and parents so far in preventing stunting are still using the old patterns. c. Parental insight is very minimal about stunting prevention, so short-term training actually cannot meet the needs of parents.

5. EVALUATION RESULTS

The training participants received relatively little counseling and training specifically discussing stunting prevention strategies through processed fish. So that all this time parents do not make fish as food that must be consumed by children. This can only be felt very useful when parents understand the importance of consuming fish, especially snakehead fish for stunting prevention. With this training, the parents feel that it is easy and cheap to process snakehead fish into food that children like. Besides that, the most important thing is that the food has high nutritional value and is able to prevent stunting in the family. In order to find out the extent to which the Training on Stunting Prevention Strategies through Processed Cork Fish for Parents from Se Ke Nagarian Kinali, Kinali District, West Pasaman Regency can be said to be successful, both technically and the benefits obtained by the participants, an assessment was held on the following matters: 1. Participants are asked to explain the Stunting Prevention Strategy. 2. Participants are asked to demonstrate the process of processing snakehead fish into food that is liked by families, especially children.

6. CONCLUSION

This training activity can be said to have been carried out well and smoothly. The objectives and benefits of the Stunting Prevention Strategy Training through Processed Cork Fish for Parents in Nagarian Kinali, Kinali District,

West Pasaman Regency can be said to have achieved maximum results. In particular, the results of this training activity can be concluded as follows: 1. The training that was carried out seemed to provide great benefits because the participants got an enrichment of abilities in teaching and learning activities. Besides that, participants can know and understand the Stunting Prevention Strategy through Processed Cork Fish for Parents in Nagarian Kinali, Kinali District, West Pasaman Regency. 2. Participants can show well the process of processing snakehead fish to prevent stunting. 3. Participants' responses to this training were considered good, as evidenced by disciplined attendance from beginning to end, actively participating in each training session and carrying out practical activities to the fullest.

ACKNOWLEDGMENT

Thank you to the Institute for Research and Community Service, Universitas Negeri Padang for providing the facilities and infrastructure for the perfection of this research.

REFERENCES

- [1] UNICEF, "Mengatasi Beban Ganda Malnutrisi di Indonesia," 2012, [Online]. Available: <https://www.unicef.org/indonesia/id/nutrisi>.
- [2] Sister, "Publikasi Hasil Analisis Data Pengukuran Stunting Tingkat Kabupaten di Kabupaten Pasaman Barat Tahun 2020," 2020.
- [3] M. Astawan, "Ikan Gabus Dibutuhkan Pascaoperasi," 2009.
- [4] D. Sari, S. A. Marliyanti, A. Khomsan, and Gantohe, "Uji Organoleptik Formula Biskuit Fungsional Berbasis Tepung Ikan Gabus (*Ophiocephalus Striatus*)," *Indones. Agritech*, vol. 34, no. 2, 2014.
- [5] A. Santoso, "Ekstraksi Albumin Ikan Gabus (*Ophiocephalus Striatus*)," Universitas Brawijaya, 2001.
- [6] A. Selcuk, O. Ozden, and N. Erkan, "Effect of Frying Grilling and Steaming on Amino Acid Composition of Marine Fishes," *J. Med. Food*, vol. 13, no. 6, pp. 1524–1531.
- [7] M. Harli, "Asam Amino Esensial," 2008, [Online]. Available: <http://www.supamas.com>.
- [8] A. M. Oladapa A and L. O. Olusegun, "Quality Change Of Nigerian Traditionally Processed Freshwater Fish Species," *J. Food Sci. Technol.*, pp. 341–348, 1984.
- [9] G. Wijaya, "Pengaruh Kapsul Ikan Gabus (Chanata Triata) terhadap Kadar Albumin pada Pasien TBC Paru Pengobatan Fase Intensif," 2015.