

EMPOWERING MOTHERS IN THE PROCESSING OF LOCAL CLARIAS NUGGETS DIVERIFIED FOODS INTO HEALTHY MPASI FOR STUNTING UNDER-FIVES IN THE WORKING AREA OF KASEMEN PUSKESMAS IN 2023

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Abstract

Community service in the form of health education activities for the target community through 2 activities in the form of providing education about stunting and appropriate feeding patterns for toddlers based on the contents of my plate, and the second stage is demonstrating the steps for cooking one of the fish-based complementary food menus (catfish) become a food that is often in demand by children in the form of processed "nuggets". the activities were carried out face-to-face on February 13 and February 21 2023 with the target of mothers who have toddlers who are stunted. The purpose of this activity is to add information and strengthen mother's knowledge in understanding stunting, prevention and how to provide proper feeding patterns to children. In addition, it equips mothers with skills and motivates them to process healthy fish-based food into delicious, healthy and of course nutritious catfish nuggets in a way that is easy to do through cooking classes. This was done by looking at the phenomenon of the problem from the results of the research conducted which found field data that the incidence of stunting in children in Margaluyu Village, the Working Area of the Kasemen Health Center has increased every year. This activity was attended by 17 mothers and toddlers in one of the village cadres' houses. The stages of the activities carried out in the education class were in the form of giving questionnaires to explore the mother's knowledge and feeding patterns (pre-test), then measuring the growth curve with a microtoise and checking the development of toddlers using the KPSP. Followed by giving material for 25 minutes and a question and answer process and evaluation. The second stage was carried out 1 week later with a series of activities in the form of a cooking class for processed MPASI side dishes in the form of catfish nuggets by conducting direct demonstrations to mothers with stunting toddlers who previously carried out a post test first with the same questionnaire. The evaluation stage is by conducting follow-up through village cadres regarding knowledge and patterns of feeding to mothers whether there have been changes, mothers' ability to make processed catfish nuggets independently at their respective homes and given them routinely to children. The final stage is to carry out follow-up which is still ongoing regarding the improvement of the child's growth curve measured for 3 months.

INTRODUCTION

Stunting is a chronic nutritional problem in toddlers which is characterized by decreased growth and development. The problem of stunting is caused by a lack of nutritional needs and walking for a long time. Stunting will be seen when a child is 2 years old, if this is not pursued from the process of growth and development with good nutritional intake, for example not being given proper breast milk or MP-ASI, then the toddler will have below standard height and cognitive ability, the child will easily illness or poor immune system and impaired mental growth (Alvita et al., 2021).

During the toddler years, nutritious food and adequate quantity and quality are needed to achieve optimal growth and development accelerations. Especially in children under the age of two, which is usually called the Golden Age Period, nutritional needs absolutely must be met. The content of amino acids and fatty acids and minerals in fish can improve nutritional status and brain cells, so as to improve health (Widayani et al., 2018).

In addition to parenting, family support feeding also influences the growth and development of children under five, a very important factor when facing health problems and as a preventive strategy to reduce chronic malnutrition problems that have an impact on stunting. Based on research results Danna, (2019) there is a relationship between family independence in stunting children, namely with less family support shown by the lowest score results with the level 1 family category of 21 families or 100%. All members must play a role in providing support such as reminding to eat and meeting children's nutritional needs.

Based on data World Health Organization (WHO) explained that in 2018 there were 21.9% of children under five years old (toddlers) in the world experiencing stunting. More than half of stunting toddlers come from Asia by 55%. The proportion of stunting under five in Indonesia is the second highest at 36.4% One of the countries in Southeast Asia with the highest stunting prevalence is Indonesia at 36.4% after Timor Leste (Kemenkes RI, 2018). Meanwhile, the condition of stunting in Indonesia is based on Kemenkes RI (2021) is still relatively high, where the prevalence of stunting is 27.67%. In addition, Banten Province is designated as the top five regions with the highest stunting rate in Indonesia, reaching 294,862 toddlers who are stunted.

Based on notes Kementrian Kesehatan RI, (2018) The Ministry of Health shows that there is an improvement in stunting status in toddlers in Indonesia. The proportion of stunting decreased from 37.2% to 27.7% (Riskesmas 2019). Although the numbers have decreased, the recorded decline is still considered insignificant. This is because the World Health Organization (WHO) sets a prevalence limit of 20% for malnutrition. Because WHO wants to achieve the goal of ending all forms of malnutrition by 2030.

In 2020, the percentage of very short toddlers was 349,157 (3.0%) and as many as 980,565 (8.5%) short toddlers. The province with the highest percentage of very short and short toddlers in 2020 is East Nusa Tenggara, while the province with the lowest percentage is the Bangka Belitung Islands province, while Banten province is in 22nd position out of 34 provinces with very short toddlers (3.1%)) and (5.8%) short toddlers (Kemenkes RI, 2020).

According to Banten Health Profile data (2019) it shows that Serang Regency is ranked first with the highest prevalence of stunting in Banten Province with a total of 9/797 or around 6.9% of the total sample of around 141,802 children whose development was observed. Several districts and cities in Banten Province also show a fairly high prevalence of stunting, with this

the government of Banten Province needs to increase knowledge about stunting, this is the basis for taking policy steps to prevent and treat stunting in Banten Province.

Based on data from the Central BKKBN, the prevalence of stunting in 245 districts/cities in 12 priority provinces for the Indonesian Nutrition Status Study (SSGI) 2021, The City of Serang enters the 11th position. There are 5 yellow zones in Banten, namely Lebak Regency with 27.3%, Cilegon City with 20.6%, Serang City with 23.4%.

Stunting is caused by various factors, one of which is parents and family, family functioning is needed for the welfare of family members, including in fulfilling the nutritional status of toddlers. Family functions from external sources, namely social conditions, culture, religion, education level, family economy, to regulations in the health sector and internal sources, namely psychological functions in the family such as family satisfaction, how to decide and solve problems, communication between families and how to share time between family. Parenting education in determining eating patterns in children is also very important because parents are family members who are very close to children, one of the functions of the family in family care is providing healthy and balanced food. (Hartono et al., 2017).

Diet in toddlers plays a very important role in the process of growth in toddlers, because food contains lots of nutrients. Nutrition is a very important part of growth. Nutrition and health are closely related to health and intelligence. If exposed to nutritional deficiencies, children are susceptible to infection and if the diet in toddlers is not achieved properly, the growth of toddlers will also be hampered. Research result Nuzula et al., (2019) shows that children with food intake below the average have a 4 times chance of becoming undernourished, mothers with knowledge of nutrition and nutrition on average 2 times for their children to experience malnutrition, and inappropriate parenting styles have 3 times the chance of causing children to experience malnutrition not enough. Parenting style greatly contributes to the nutritional status of children, one of the parenting styles that is related to the nutritional status of children is the parenting style of feeding children..

Providing food at home is influenced by the attitude of the family, especially the mother in fulfilling child nutrition. Children need the attention and support of the family in facing very rapid growth and development (Oktaningrum, 2018). Provision of nutritious food for toddlers is not only the mother's responsibility but also shared responsibility and support such as the support of husbands, family and the community as well as other related parties such as health workers and health service facilities and the government is urgently needed to reduce the incidence of stunting.

Seeing that stunting regarding stunting has not yet decreased, the government has attempted various stunting control programs including the Provision of Supplementary Food (PMT) for toddlers and pregnant women, Provision of Supplementary Blood Tablets (TTD) for young women and pregnant women, increasing the coverage of complete immunization in infants and toddlers, giving vitamin A and giving supplementary food (PMT) to toddlers (Alvita et al., 2021). However, the rate of reduction in cases is still far from the national target. This is because the government's program in tackling stunting has not been maximized and the Provision of Supplementary Food (PMT) has not been modified enough so that it is less attractive to children and toddlers. So that a solutive effort is needed in the form of modification of processed food to support the government's program in Providing Additional Feeding (PMT), one of which is by processing high-protein fish processed foods such as fish into diversification

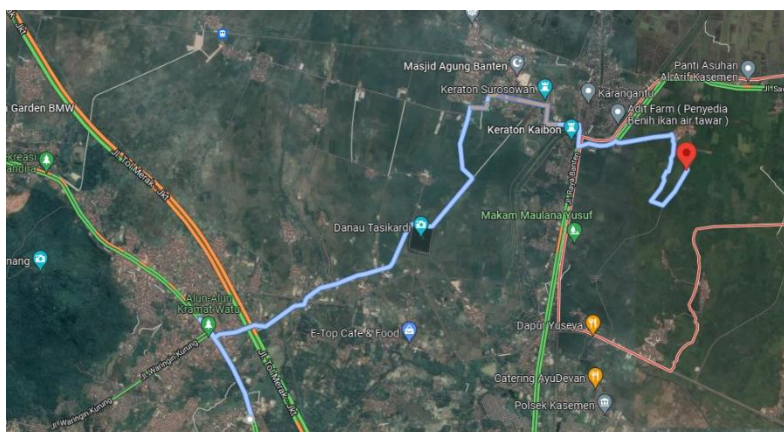
ingredients.

Catfish (*Clarias*) is a type of fish that is very popular with various groups because of its very delicious meat. Catfish has a high protein and calcium content. Based on research, the nutritional content of catfish is quite high, namely protein (17.7%), fat (4.8%), minerals (1.2%) and water (76%). The advantage of catfish compared to other animal products is that it is rich in leucine and lysine and omega-3 and omega-6 fatty acids. Protein in catfish can increase body weight and increase muscle mass (Dermawan, E. 2022). This can be used as one of the processed fish which can be modified in Supplementary Feeding (PMT), one of which is by processing catfish into *Clarias* Nuggets.

Based on the survey results in the Kasemen Health Center Work Area, Serang Regency, in 2022 there were 100 cases of stunted toddlers. It was recorded at 1.1% in the Kasemen area, 1.2% in the Kasunyatan area, 1.9% in Margaluyu, and 1.6% in Banten, 1.3%. The achievement of exclusive breastfeeding coverage was 45%, while the coverage of underweight toddlers who received PMT was 52%, which was still lower than the government's target of 85%. In addition, based on the results of interviews conducted with midwives at the Kasemen Health Center, data was obtained that the people in the Kasemen area on average work as laborers and it was identified that the mother's behavior was not appropriate in providing supplementary food (PMT) for stunted toddlers, in addition, environmental conditions the people of the Kasemen area who show the results of the family health index (IKK) of less than 0.5, which means they are not healthy.

Seeing the phenomenon of the problem above, there is a need for a joint solution with the community by holding a diversification program for processing local catfish food into *Clarias* Nuggets for healthy MP-ASI for toddlers with stunting. This program is expected to be able to contribute to the health aspect in the form of increasing the nutritional status of stunted children which can be assessed by increasing the growth curve. In addition, it is indirectly able to empower the community, especially mothers who have toddlers to be given knowledge and skills in modifying food that can be offered to the surrounding community to increase family income. Another positive impact from the implementation of this program is that it is hoped that it will be able to educate mothers of toddlers with stunting regarding appropriate parenting behavior in the provision of various MP-ASI, one of which is processing the basic ingredients of catfish into processed nuggets called *Clarias* Nuggets.

Margaluyu Village is one of 10 Villages in Kasemen District, Serang City with a distance of ± 2 km to Kasemen District, ± 15 Km to the Capital City of Serang, ± 20 Km to the Capital City of Banten Province. The area of the Margaluyu Village, Kasemen District is 358.1 Ha with 12 Neighborhoods, 7 RWs and 25 RTs and the Margaluyu Village Area Consists of ± 450 Ha of Agricultural Land and ± 96 Ha of Settlements. The location of the Magaluyu Village is an area close to the waters where access to fish products will be very easy to obtain. In addition, access to get there can be reached using public transportation such as motorcycles and cars.



Picture 1. Location Map of Margaluyu Village

Source: Google Maps

Based on the data obtained from the Puskesmas, there were 98 cases of stunted toddlers. It was recorded at 1.1% in the Kasemen area, 1.2% in the Kasunyatan area, 1.9% in Margaluyu, and 1.6% in Banten, 1.3%. From the results of interviews with village midwives, the people in the Kasemen area on average work as laborers and it was identified that the behavior of mothers was inappropriate in providing supplementary food (PMT) for stunting toddlers, besides that the environmental conditions of the Kasemen area community showed the results of the family health index (IKK) less than 0.5 which means unhealthy.

There are several factors that make toddlers in the Margaluyu Village area suffer from stunting, one of which is economic factors, health and mother's behavior. The average income of the people in the Margaluyu area is around Rp. 20,000 to Rp. 50,000 per day by working as farm laborers. Mother's behavior in giving MP-ASI is inappropriate and modified into more attractive dishes so that toddlers don't like food made from processed fish.

Toddlers with stunting in Margaluyu Village on average do not like fish because it smells bad and the food processing has not been cooked in a variety of ways, which makes it difficult for their toddlers to consume animal protein and lack of appetite. Therefore, it is necessary to innovate food processing that can be liked by toddlers, such as making fish-based MPASI whose raw materials are cheap, easy to obtain and easy to process in the form of catfish nuggets (*Clarias nuggets*). By holding this community service activity, it is hoped that it can help mothers who have toddlers to modify processed fish that toddlers like, so that it can be a simple solution to be able to meet nutritional needs, one of which is animal protein and high calcium which can increase the growth curve of toddlers who experience stunting.

Based on this phenomenon, the authors formulated the problem in the form of "How are efforts to empower mothers through health education for Stunting Classes and MPASI and Cooking Classes to be a solution to overcome the problem of stunting in toddlers in the Work Area of the Kasemen Health Center?".

The purpose of this activity is to find out how to empower mothers through health education for Stunting Classes and MPASI and Cooking Classes to overcome the problem of stunting in toddlers in the Kasemen Health Center Work Area. The implementation of this community service is a form of effort to prevent stunting from increasing in the Kasemen Region as well as a form of empowering mothers in carrying out appropriate parenting patterns to improve the nutritional status of their children who are stunted.

METHOD

The target of implementing this education is mothers who have toddlers with stunting status and mothers who have good nutritional status (not stunting). This activity involved lecturers in medical surgical, child and psychiatric nursing courses. Activities have been carried out and taken place at the Village Hall or Puskesmas in the Kasemen Area, especially in the Margaluyu Region. These activities are given to the community (mother and toddler groups). The evaluation that has been carried out is to measure the growth curve of toddlers with a microtoise, a survey of satisfaction of toddlers with stunting for giving Clarias Nuggets in the form of a pie chart or chart and a survey of the ease of processing Clarias Nuggets. In addition, there is monitoring carried out by the LPPM team when the intervention and evaluation is carried out. Activities have been carried out in October 2022 to May 2023. The chief executive is responsible for leading the implementation of health education. The executors of the activities consist of two to five people. The following is an explanation and flow of community service activities.

1. Stunting and MP-ASI Education Class

Mother's knowledge has a very important role in improving the physical and cognitive quality of toddlers. The stunting and MP-ASI education class is one of the strategies that is adjusted to the baseline from the conditions of the partners identified in the preliminary study which shows that there is still a lack of knowledge in knowing the condition of stunted children and not yet optimal in preparing MP-ASI. With this activity, it is hoped that it can empower mothers with stunted toddlers in providing healthy MP-ASI.

2. Cooking Class for Making Catfish into Clarias Nuggets for Mothers Who Have Toddlers with Stunting

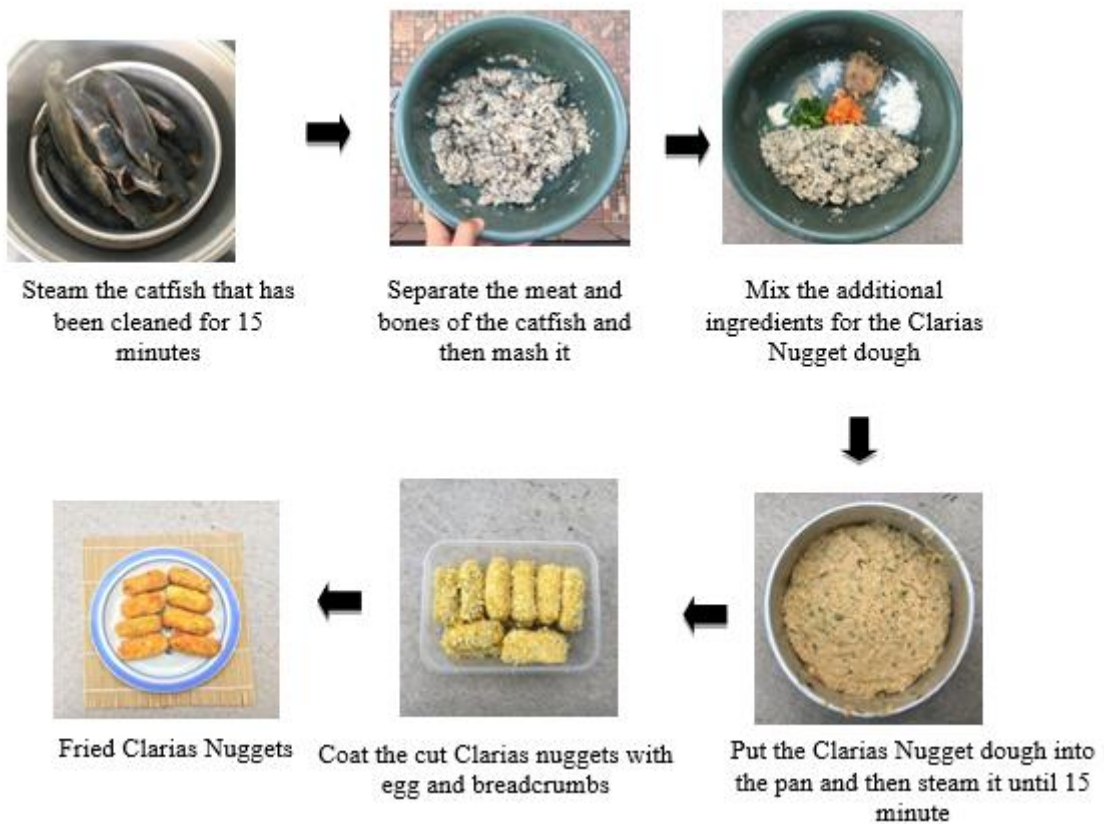
This activity was carried out through training in fish nugget cooking classes for partners of mothers with stunting as an effort to reduce the incidence of stunting in Margaluyu Village. The purpose of this activity is as a form of effort to reduce stunting rates in Margaluyu Village by increasing the knowledge and skills of mothers in providing good parenting styles for children. In addition to partners, this catfish processing class is also taught to PKK cadres or mothers who will become holders of this sustainable program from PKM-PM. The stages of processing catfish into Clarias Nuggets can be said to be simple to do. The materials needed are also easily available at a fairly economical price. In addition, many of the tools used in the processing of Clarias Nuggets can be found in the house. That way, it is hoped that mothers who have toddlers with stunting will not experience difficulties in processing Clarias Nuggets so that they can be a solution for providing healthy MP-ASI.

The tools used in the processing of Clarias Nuggets are stoves, pans, steamers, tins, mortar and pestle, plastic containers, plates, knives, spoons, graters and plastic cutlery. While the ingredients needed are 1 kg of catfish meat, 150 grams of carrots, 30 grams of green onions, 500 grams of bread flour, 2 chicken eggs, 1 teaspoon of fine salt, 3 tablespoons of flour, ½ tablespoon of cornstarch, ½ teaspoon of ground pepper and 1 tsp mushroom stock.

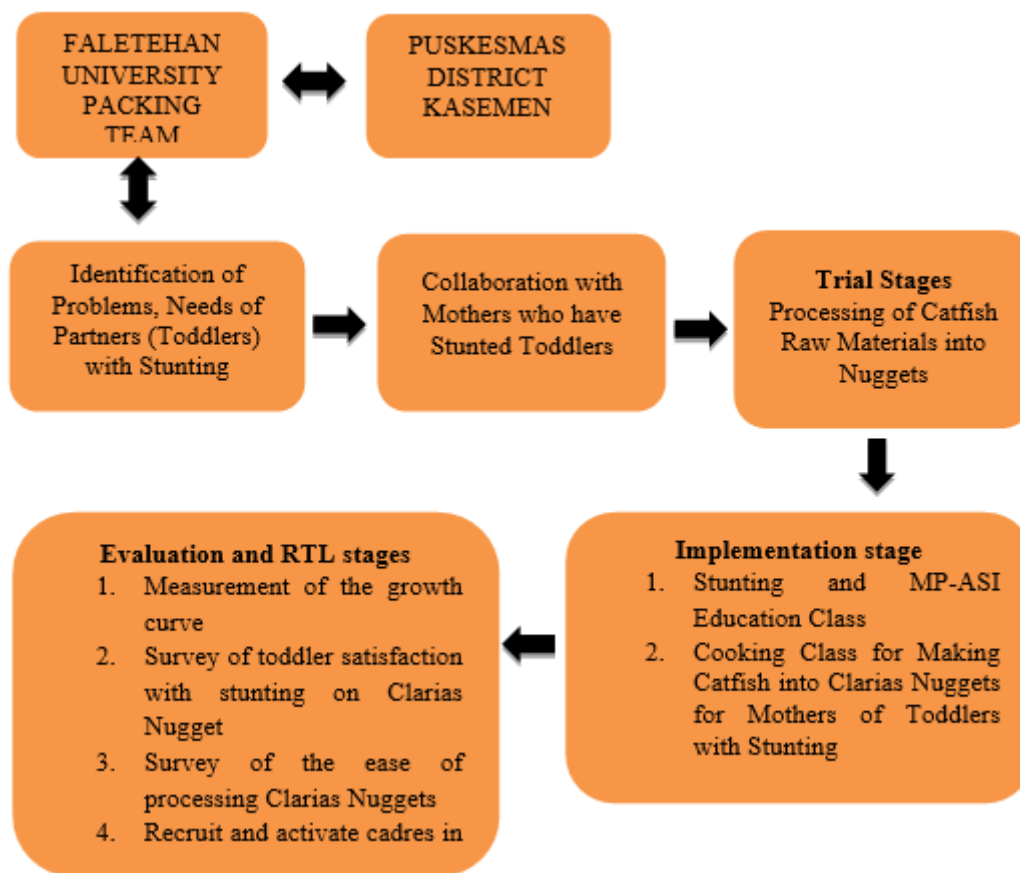


Picture 2.1. Tools and Materials for Processing Clarias Nuggets

The process for processing Clarias Nuggets is quite simple and easy to do, the following are the stages in processing Clarias Nuggets:



Picture 2.2 Stages of Processing Clarias Nuggets



Bagan 2.1 Implementation Flow

The entire series of implementation of this activity is carried out online and offline. Activities carried out online consist of the stages of coordinating the UF PKM team together with Parties at partner locations and the stages of the proposal creation process. Furthermore, offline activities are carried out starting from the preliminary study stage to identify partner problems and needs, the catfish nugget processing stage by the UF PKM team, then the implementation and evaluation stages are also planned to be carried out directly to the field.

RESULTS AND DISCUSSION

1. Distribusi Frekuensi Stunting Frequency Distribution In The Working Area Of The Puskesmas Kasemen In 2023.

Tabel 4. 1 Distribution of Toddler Stunting Frequency in Working Area of Puskesmas Kasemen in 2023

Toddler Height	Amount	Presentase
Stunting	15	88,2 %
Stunded	2	11,8 %
Amount	17	100

Source: Primary Data (2023)

2. Frequency Distribution Of Feeding Patterns Prior To Intervention In The Working Area Puskesmas Kasemen In 2023.

Tabel 4. 2 Frequency Distribution of Parenting Patterns of Feeding Prior to Intervention in Working Area of Puskesmas Kasemen in 2023

Feeding Patterns	Amount	Presentase
Seldom	15	88,2 %
Often	2	11,8 %
Total	17	100%

Source :Primary Data (2023)

3. Frequency Distribution of Feeding Patterns After Intervention in Working Area of Puskesmas Kasemen in 2023.

Tabel 4. 3 Frequency Distribution of Parenting Patterns of Feeding After Given Intervention in Working Areas Puskesmas Kasemen in 2023

Pola Pemberian Makan	Amount	Presentase
Seldom	1	5,9
Often	16	94,1
Total	17	100%

Source :Primary Data (2023)

4. Frequency Distribution of Knowledge of Mothers with Stunted Toddlers Prior to Intervention in Work Areas Puskesmas Kasemen in 2023.

Tabel 4.4. Distribution of Knowledge Frequency of Mothers with Stunted Toddlers Prior to Intervention in Work Areas Puskesmas Kasemen in 2023

Knowledge	Amount	Presentase
Low	15	88,2
Tall	2	11,8
Total	17	100,0

Source :Primary Data (2023)

5. Knowledge Frequency Distribution of Mothers with Stunted Toddlers After Intervention in Work Areas Puskesmas Kasemen in 2023.

Tabel 4.5 Distribution of Knowledge Frequency of Mothers with Stunted Toddlers After Intervention in Work Areas Puskesmas Kasemen in 2023

Knowledge	Jumlah	Presentase
Low	0	0
Tall	17	100,0
Total	17	100,0

Source :Primary Data (2023)

Stunting is a condition where a person's height is less than normal based on their age. Height is a type of anthropometric examination and shows a person's nutritional status. The presence of stunting indicates a poor nutritional status or malnutrition in the long term or chronic (Candra, 2020). Short body or stunting in toddlers is caused by chronic malnutrition or malnutrition which results in failure in growth and is used as an indicator in the long term. Children who experience stunting are caused by five main things, namely poor nutrition in infants or pregnant women, during pregnancy and childbirth, problems with health services, especially during antenatal care, post-natal care, and poor sanitation (KDPDTT, 2017).

In this study, the results showed that 88.2% of toddlers had stunting, while 11.8% were in the stunted category. This shows that most of the total number (17) toddlers who attended community service activities were stunted. There are several factors that influence parenting patterns of feeding by the mother, namely parents' education, number of family members, mother's age, socio-economic, and culture. Based on the results of the study, it was found that the factors influencing the incidence of stunting in the Kasemen Health Center Work Area were in terms of the dominant mother's education having graduated from elementary school.

This can be proven from research results Rosadi et al., (2016) which suggests that the mother's education level has a significant relationship with the incidence of stunting. Where the higher the mother's education, the risk of children experiencing stunting is 5 times lower than mothers with low education levels. This is because the level of education also determines good knowledge about nutrition and child health, so if working mothers will still pay attention to good nutrition and nutrition and can obtain nutrition and health information through methods other than posyandu.

Another factor that triggers the incidence of stunting is the pattern of feeding. Study Loya & Nuryanto, (2017) explained that the direct cause of stunting was nutritional intake from the food provided and the pattern of feeding by the mother. Mothers are required to provide good feeding patterns for their children, especially if the children are still under five, they are very dependent on mothers, especially in feeding them to support their growth process so that their nutritional intake is properly met. This is in line with the results of interviews conducted with mothers who were in Kasemen, they stated that their children tended to dislike fish consumption because it felt a fishy and unpleasant smell and the mother respondents said they did not know the proper and varied processing methods so that children would be willing consuming fish. They only process fish by roasting or frying it as a whole.

Other research conducted by Fahulpa, (2019) describes eating styles related to feeding practices and stimulation given to children. Poor feeding practices in children will contribute to stunting. Parenting is based on parents' beliefs about why a child behaves well or badly, including eating behavior. Parenting style consists of two basic components, namely parental demands and parental responsiveness. Parental demandingness is a type of parenting in terms of food in the form of controlling, demanding and supervising children. Meanwhile, parental responsiveness is a type of parenting that involves parents or families with the warmth and effectiveness of parents in caring for children.

The phenomenon during community service above is strengthened by research results Gunawan et al., (2020) using the Spearman Rank test with a significant level of 0.05, the results obtained were p value = 0.000 ($p < 0.05$). So it can be concluded that there is a relationship

between parenting style feeding and the incidence of stunting. The results of this study are in line with the research of Yudianti & Saeni, (2017) which states that there is a significant relationship (p value = 0.02) between feeding practices and the incidence of stunting. In this study, stunting toddlers received more poor parenting in the form of neglect by 62.7%.

Parenting is a way of feeding, caring for children and educating children that is carried out by the family and is carried out regularly so as to form a pattern or habit. Parenting can be in the form of parent-child interaction by providing good knowledge, behavior and normal values for parents to their children, the goal is for children to grow and develop optimally and can be well-directed in life in their environment (Fahulpa, 2019). When it is related to nutrition, parenting by parents is a way of giving food to children that is done by parents or family regularly so that it becomes a pattern every day.

From the results of direct observations in the field, most mothers or parents if the child does not want to eat what has been provided and the child prefers to eat snacks outside, mothers tend to allow their children to eat these snacks, the most important thing is that their children want to eat without paying attention to the nutrition and nutrition in these foods. . And most mothers prefer to drop out of school and marry at a fairly young age. This is of course related to the understanding and culture of the local community which is still followed by the local community, which states that women do not need to go to higher education because they will work in the kitchen.

The phenomenon of the problem of knowledge in mothers who are not good at dealing with stunting is of course necessary to provide education in the form of audiovisual and direct simulation classes with the aim of providing knowledge and direct simulation to mothers in understanding stunting and practicing directly how to process fish into food that children like . One of these community service programs is to utilize local food ingredients which have become local wisdom in the Banten area, especially in Kasemen where access to fish is quite easy. One of them is catfish which is a fish with high protein and is relatively cheap.

Catfish (*Clarias*) is a fresh water fish that is easy to get. Catfish has a good nutritional content, even 14 times higher in protein than other freshwater fish. The content in catfish consists of omega-3 fatty acids which are beneficial for heart health and brain function to work properly. In addition, it is rich in calcium and vitamin D which can help strengthen baby's bones, contains lots of vitamin B12 which functions in the formation of erythrocytes, brain health and DNA synthesis. The advantage of catfish compared to other animal products is that it is rich in leucine and lysine and omega-3 and omega-6 fatty acids. Protein in catfish can increase body weight and increase muscle mass (Dermawan, 2022 ; Kemenkes RI, 2022). On the basis of good nutritional content, catfish can be processed into modified food additives (PMT), one of which is by processing catfish into *Clarias* Nuggets.

Information about the benefits of fish itself is provided to mothers in the Kasemen Area by means of Audiovisual-based Education with 2 programs in the form of educational classes and cooking classes which are made in the form of cooking tutorial videos as well as being practiced directly with mothers at community service locations. This activity was carried out for 2 weeks and there was enthusiasm which was felt positively during the activity process because the community came and took part in the activities for 2 stages until it was finished. In the first week, before giving material in the education class, the community service team first conducted a pre-test by distributing questionnaires to identify mothers' knowledge about

stunting and feeding patterns for infants and toddlers. Next, conduct a child growth and development survey to identify stunting conditions and growth delays. This process involves pediatric nursing lecturers who are experienced in assessing stunting conditions. After that, education was given for approximately 25 minutes followed by a question and answer and evaluation process. Then in the second week, the mothers were given the same questionnaire (post test) and then did a cooking tutorial by first showing a video on how to process catfish nuggets and practicing it directly in a cooking class with the mothers. The activity ended with a question and answer, giving gifts and giving PMT (catfish nuggets) which had been processed together to the children and it was seen that the children liked and ate the catfish nuggets that were given. The following is documentation of community service activities from the Faletahan University Community Service Team.



Picture 1. Documentation of Community Service Activities in the Kasemen Serang Region

The results of the above activities showed positive results for mothers, especially in increasing mothers' knowledge about stunting, knowledge about healthy MPASI and teaching one of the skills in processing fish into PMT, namely catfish nuggets. The provision of education which is carried out in combination between audiovisual, visual video and given

leaflets is felt to be more effective than the provision of conventional knowledge such as lectures with only a single media such as leaflets or booklets. This is in accordance with research results Pratiwi (2022) that there are significant results in providing education using a combination of audiovisual and booklets as seen from changes in the average value of knowledge of mothers with stunted children (p value: 0.000). The combination of using various health promotion methods is proven to increase the absorption of information more optimally because it involves more than 2 senses namely hearing and sight in the process. This is related to the stimulus in humans that will be captured by humans through the five senses in absorbing information, the highest proportion is the sense of sight by 82% and the sense of hearing by 11%. so that if the provision of information optimizes the functions of the two senses through combined media, the material to be conveyed will be easily absorbed and stored in a stronger memory (Khotimah et al, 2019).

The above results form the basis of the service which is carried out using 2 methods at once and there are also visible results of significant changes in the knowledge of mothers in the Kasemen Region.

CONCLUSION

Community service that has been carried out regarding education classes and cooking classes to empower mothers to process complementary foods made from catfish which is a rich source of protein needed to support the growth and development of children, especially those with stunting conditions. The results of the implementation show that the provision of education regarding education classes and cooking classes has proven to increase the knowledge of mothers regarding knowledge related to stunting and feeding patterns, one of which is processing local food ingredients that are easy to become the type of food that children like, in the form of catfish nuggets. There is an increase in appetite in toddlers who are initially not interested in consuming fish, but have not measured it in the form of weight gain. The implementation of this education can be carried out continuously at the same or different places. There needs to be follow-up for a longer period of at least 6 months to find out a significant increase in the nutritional status of children under five who regularly consume catfish nuggets by activating the role of village cadres in measuring children's growth and development in Posyandu activities.

REFERENCES

- Alvita, G. W., Winarsih, B. D., Hartini, S., & Faidah, N. (2021). Peningkatan Pemahaman Masyarakat Pentingnya ASI dan MPASI yang Tepat dalam Pencegahan Stunting di Wilayah Kerja Puskesmas Rejosari di Desa Cranggung. *Jurnal Pengabdian Kesehatan*, 4(2), 123–135.
- Candra, A. (2020). *Epidemiologi Stunting*.
- Danna, M. O. (2019). *Hubungan Pengetahuan, Sikap, Dukungan Dengan Kemandirian Keluarga Pada Anak Stunting Di Puskesmas Bulak Banteng Surabaya Halaman*. Skripsi, Sekolah Tinggi Ilmu Kesehatan Hang Tuah Surabaya.
- Darmawan, E. 2022. *Nugget Antistunting dengan Memanfaatkan Hidrolisat Protein dari Ikan*

- Lele Dumbo (*Clarias gariepinus*). 4(1).
- Hartono, Widjanarko, B., & EM, M. S. (2017). Hubungan Perilaku Keluarga Sadar Gizi (KADARZI) dan Perilaku Hidup Bersih Sehat (PHBS) Pada Tatanan Rumah Tangga Dengan Status Gizi Balita Usia 24-59 Bulan. *Jurnal Gizi Indonesia*, 88–97.
- Helmyati, S., Atmaka, D. R., Wisnusanti, S. U., & Wigati, M. (2022). Stunting Permasalahan dan Penanganannya (Sifa (ed.); Cetakan ke). Gadjah Mada University Press Anggota IKAPI dan APPTI.
- KDPDTT. (2017). *Buku Saku Desa Dalam Penanganan Stunting*.
- Kementerian Kesehatan RI. (2011). *Standar Antropometri Penilaian Status Gizi Anak*. Direktorat Bina Gizi Kementerian Kesehatan RI.
- Kemendes RI. (2018). *Buletin Stunting*. In Kementerian Kesehatan RI (Vol. 301, Issue 5).
- Kemendes RI. (2018). *Situasi Balita Pendek (Stunting) di Indonesia*. Edisi Ke-I. *Jendela Data dan Informasi Kesehatan*.
- Kemendes RI. (2020). *Health Information Systems*. In *IT - Information Technology* (Vol. 48, Issue 1). <https://doi.org/10.1524/itit.2006.48.1.6>
- Kemendes, RI. (2020). *Situasi Stunting di Indonesia*. Edisi Ke-II. *Jendela Data dan Informasi Kesehatan*.
- Khotimah, H., Supena, A., Hidayat, N. (2019). Meningkatkan attensi belajar siswa Kelas Awal Melalui Media Visual. *Jurnal Pen didikan Anak*, 8(1), 17-28. <https://doi.org/10.21831/jpa.v8i1.22657>.
- Nuzula, F., Oktaviani, M. N., & Anggari, R. S. (2019). Analisis Terhadap Faktor-Faktor Penyebab Gizi Kurang Pada Balita di Desa Banyanyar Kecamatan Kalibaru Banyuwangi. *Jurnal Imliah Kesehatan Rustida*, 3, 2.
- Oktaningrum, I. (2018). Hubungan Pengetahuan dan Sikap Ibu Dalam Pemberian Makanan Sehat Dengan Status Gizi Anak di SD Negeri 1 Beteng Kabupaten Magelang Jawa Tengah. Universitas Negeri Yogyakarta.
- Pratiwi (2022). Pengaruh Edukasi Stunting Menggunakan Metode Audiovisual dan Booklet terhadap Pengetahuan Ibu dengan Anak Stunting. <https://DOI:10.52299/jks.v13i1.95>.
- Riestamala, E., Fajar, I., & Setyobudi, S. I. (2021). Formulasi Ikan Lele Dan Bayam Hijau Terhadap Nilai Gizi, Mutu Organoleptik, Daya Terima Risoles Roti Tawar Sebagai Snack Balita. *Journal of Nutrition College*, 10(3), 233–242. <https://doi.org/10.14710/jnc.v10i3.30749>
- Supariasa, I. D. N., Bakri, B., & Fajar, I. (2022). Penilaian Status Gizi. In *Stunting Permasalahan dan Penanganannya* (p. 31).
- WHO. (2016). *Global Strategy For Infant and Young Child Feeding*. In *Stunting Permasalahan dan Penanganannya* (p. 55).
- Widayani et al., (2018). Penyuluhan Gizi dan Pemberian Ketrampilan Kreasi Nugget Bergizi Kepada Ibu Balita Untuk Mencegah Kejadian Stunting Di Wilayah Gunungpati. *Seminar Nasional Kolaborasi Pengabdian Pada Masyarakat Pendahuluan*, 1, 297–301.