



Mitigating Stunting Cases Through Community Empowerment and Local Potential

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ABSTRACT

Stunting is a nutritional problem in children that is caused by prolonged malnutrition, characterized by lower body height and stunted brain development. If this condition is not handled, it will result in human resources not being optimal and will also result in the emergence of disease in the future. Stunting is caused by multi factors, namely economic, social, environmental, health and nutrition. Nutrition plays a very important role in the process of growth and development of a child during the introduction of foods during the MP-ASI (Complementary Food-Mother's Milk) period. Improper provision of MP-ASI will increase the potential for children to become stunted. The urgency of this activity is to prevent and alleviate cases of stunting in partner locations. This is important because toddler age is a golden period of growth. On the other hand, Guwosari Village has problems, namely: (1) Community knowledge about stunting is still low. (2) The use of food ingredients has not been varied and has minimal nutrition. The objectives of this activity are (1) Increase public knowledge and awareness about the dangers and ways to prevent stunting. (2) The community can create a variety of foods made from local potential which are guided by improving children's nutrition.

Keywords: *Local Potential, Nutrition, Stunting.*

1. INTRODUCTION

Stunting is a chronic nutritional problem that occurs in children, characterized by shorter height and more difficult learning abilities [1]–[4]. Stunting can affect motor and mental development in pre-school children, cognitive achievement and poor school performance in school-aged children [5]–[7]. Apart from that, stunting can also have a long-term impact, namely it can hamper economic growth, increase poverty rates, widen inequality and increase the risk of chronic diseases such as diabetes, hypertension and obesity. If stunting is not addressed, the Indonesian generation will not be able to compete in facing future challenges. Stunting is caused by many factors, including health and nutritional factors from pregnancy until the child is 2 years old, economic, social and environmental factors. The nutrition obtained from the time a baby is born greatly influences its growth, providing inadequate nutrition during the toddler's growth period will increase the risk of stunting [8], [9]. At the age of 6 months, children are introduced to Complementary Foods for Breast Milk (MP-ASI). Several studies show that giving MPASI has an effect on the incidence of stunting. Improper provision of MP-ASI

can be a factor causing stunting. Several things that need to be considered when giving MP-ASI are sufficient quantity, time of administration, food texture, menu variations, method of administration and hygiene principles. The intake of children under five tends to consume food sources of carbohydrates and less consumption of animal protein sources. This causes toddlers' nutritional intake to be inadequate, because animal protein is needed for growth. Indonesia's stunting prevalence in 2022 will be 21.6%, this figure is still far from the target of the National Medium Term Development Plan (RPJMN), which is 14% in 2024 and still does not meet WHO standards, namely a maximum of 20% each year.

Counseling is needed to increase access to information and support services for families at risk of stunting. Counseling can be provided to the community, by recognizing the problems in that community. An approach to the community is very necessary before information is provided, because the problem of stunting is caused by many factors, so that if the problem is known, the causes can be handled appropriately. Mother's education and knowledge play a very important

role in providing MP-ASI. Good education and knowledge of MP-ASI will tend to choose and provide good MP-ASI, in terms of quality and quantity [10], [11].

Pajangan District has an area of 33.25 km² with 3 villages, namely Triwidadi, Sendangsari and Guwosari. With this area, Pajangan will only have 2 nutritionists in 2022, this number has decreased from the previous year, even though nutritionists play a very important role in efforts to reduce stunting. The decreasing number of nutritionists is not commensurate with the stunting rate in Pajangan District which is still high. Guwosari Village has 11.7% or 113 stunted toddlers, this figure is higher than other villages, namely Triwidadi 10.16% and Sendangsari 8.65%.

Based on observations from Guwosari Village 1) Community knowledge about stunting is still low and they do not have access to information about nutrition and health. This is important to handle, because treating stunting too late will cause the child's growth and development to be less than optimal. The information that needs to be given to mothers of toddlers in Guwosari is about stunting and its impacts, because some people only know that stunting is short, even though the main problem of stunting is brain development is hampered, and the next problem is 2) the use of food is not yet varied and lacks nutrition, even though partners have the potential for local food that is rich in nutrients and easily affordable. There needs to be examples of menu processing and creativity in providing MP-ASI with local food so that it becomes a high-nutrient food, because MP-ASI that is not appropriate, in texture, composition and processing will cause many health problems. By using local food, creativity in food processing can increase, because these food ingredients are easily found nearby.

2. METHODS AND MATERIALS

The stunting instructor explained the mitigation of stunting cases, including the impact of stunting, the causes and prevention factors, explaining health information for optimal child growth and development. Evaluation was carried out with partners filling out questionnaires, 80% of partner members understood about stunting.

The practice of cooking with local food shows the differences in food for toddlers and adults by processing food from local food, including catfish, moringa leaves, coconut and others. Create a creative menu from several local foods that toddlers like. For example: catfish nuggets, moringa catfish rolls, moringa chips, catfish meatballs and others. Evaluation is carried out by partners in creating food menus using local food. The use of menu creativity increases resulting in high nutritional value.

Hold a forum to hold discussions regarding toddler growth and development. Inviting the community to

actively participate in the growth and development of toddlers [12]. By checking if the toddler's growth and development is not good for 2 months in a row, and looking for solutions to the problem.

3. RESULTS AND DISCUSSIONS

3.1. Results

Before carrying out PKM, the service team sought permission to carry out this PKM with permission from LPPM UPY to Guwosari Pajangan village. In implementing this PKM activity, it begins with taking an approach to support the realization of this program through approaching village/district officials, then the Head of the Hamlet, and the Head of the Padukuhan Health Cadre to plan PKM activities regarding stunting mitigation. Based on this approach, the implementation of the planned PKM program can run well with the support of village officials and community members. Based on talks and discussions with village officials, in this case Kamituwo, it was said that Guwosari village has 17 padukuhans, and quite a lot of them have stunting problems. So it is recommended to choose only a few hamlets, based on the results of coordination with nutrition experts from the local health center. Based on talks and discussions with village officials, in this case Kamituwo, it was said that Guwosari village has 17 padukuhans, and quite a lot of them have stunting problems. So it is recommended to choose only a few hamlets, based on the results of coordination with nutrition experts from the local health center.



Figure 1 Approach



Figure 2 Approach with the Village Head of Gowosari Village

After approaching Guwosari Village, the team continued its approach with the hamlet head and cadres in Padukuhan Kembang Gede and Santan to explore the problem of stunting and various prevention efforts that have been carried out, so that PKM can be right on target and useful for the community in preventing stunting. Based on the results of discussions and coordination with hamlet heads and health cadres, the time and techniques for implementing stunting prevention counseling and training are determined.



Figure 3 Santan Hamlet Stunting Mitigation Counseling



Figure 4 Kembang Gede Hamlet Stunting Mitigation Counseling

Observations were carried out to determine the real conditions of the location and see the natural potential of Guwosari Village so that Community Service could be carried out. Based on the results known from observations made in the field, the potential food from Guwosari Village is Moringa leaves, spinach, sweet potatoes, cassava, and other potential foods that are easily available, namely catfish and chicken. Meanwhile, the price is relatively affordable for the public. Another potential food that is easy to obtain is bananas, namely the Raja Bandung type of banana (uter banana) which grows a lot in the village. Based on several potentials and descriptions of existing food ingredients, food ingredients are actually easy to obtain, but parents don't understand how to process food so children don't have a good appetite.

After carrying out this initial approach, discussions continue to determine the targets and types of activities to be carried out according to the needs and potential conditions of the targets. As a result of the discussion, it was discovered that several residents whose children were stunted felt embarrassed and were reluctant to join the gathering. According to the cadres, there were several problems, including:

1. Knowledge of Stunting is Still Low

The public lacks health information, due to limited and reduced health human resources to tackle stunting. There are still many people who don't know about stunting mitigation. Many myths that develop in society then become habits and carried out continuously, even though the information is wrong and interferes with children's healthy growth and development. For example, children should not be given eggs, because eggs can cause allergies and itching. In fact, eggs are a good food for children to consume, because they contain nutrients that can optimize children's brain growth and development and prevent stunting.

2. Lack of Use of Local Food and Low Nutrition

Local people think that healthy food is expensive food, which is quite difficult for people from middle to lower economic groups to obtain and the variations are not diverse. In fact, healthy food can be obtained from local food, and can be processed into several kinds of dishes.

3.2. Discussions

The results of discussions with cadres were agreed for PKM activities to be carried out with stunting mitigation counseling, so that parents of toddlers know very well what stunting is and how to prevent it. In addition, to better introduce healthy food preparations for toddlers, a demonstration training was conducted on the preparation of local food for toddler menus to prevent stunting.

In accordance with the agreement with the village, stunting socialization is carried out in Padukuhan Kembang Gede and Santan. The method of kalasnaa is as follows:

1. Opening

The stunting counseling activity at Padukuhan Kembang Gede was held on Wednesday, September 6, 2023 at the house of the father of Kembang Gede Hamlet, and in Santan it was held on Wednesday, September 13, 2023 at the Joglo Padukuhan Santan Activities.

The socialization activity began with an opening with prayer. which was attended by health

cadres and mothers and their toddlers, as well as all members of the PKM Team. This is done so that the activities to be carried out are known and get attention also from the local government and get support, and to provide motivation to training participants. In this opening event, there was an introduction to the PKM team and an explanation of the purpose of PKM.

2. Exploring toddler problems

To find out the right activities to be given to the group in this initial meeting, activities were carried out to explore toddler problems, especially in terms of health and food for toddlers, the results of the discussion emerged the following problems:

- a) What exactly is meant by stunting, what are its symptoms and consequences.
- b) Difficulty feeding toddlers.
- c) How safe, easy and cheap and healthy food for children under five?

3. Extension

The counseling material provided is the understanding of stunting, stunting symptoms, causes of stunting, the impact of stunting, and stunting prevention. Counseling on the potential benefits of local food for processed food under five to prevent stunting.

4. Training and cooking demonstrations to diversify local food preparations to prevent stunting

The training and cooking demo will be held on Wednesday, September 20, 2023 at the house of the father of Kembang Gede. This training was attended by mothers and toddlers in Kembang Gede and Santan as well as health cadres.



Figure 5 Menu of Lele Nugget and Ati Goreng Tepung Asam Manis



Figure 6 Cooking Menu Soup Chicken Balls Quail Eggs



Figure 7 Catfish Ball Steak Cuisine Menu



Figure 8 Steak Dish Menu Sweet and Sour Chicken Balls

The purpose of this training is so that mothers who have toddlers know and can practice healthy food patterns for toddlers based on local ingredients. So as to increase appetite in children..

3.3. Conclusions

This activity took place with the support of the Ministry of Education and Culture of the Republic of Indonesia, as well as the support of Guwosari residents. The implementation is in accordance with the plan that has been set and is going well. This can be seen from the participation and enthusiasm of residents starting from approach, planning, implementation to evaluation. The results of the activity showed that community members became more aware and understood about the potential of local food for stunting prevention. This can be seen

from the results of residents' testimonials after the activity was completed. The results of the activity showed that community members became more aware and understood about the potential of local food for stunting prevention. This can be seen from the results of residents' testimonials after the activity was completed.

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5. REFERENCES

- [1] A. Widiyanto, J. T. Atmojo, and T. D. Darmayanti, Aquartuti, "118-Article Text-225-1-10-20190614," *J. Terpadu Ilmu Kesehat.*, vol. 8, no. 1, pp. 2016–2021, 2018.
- [2] S. H. Waliulu, D. Ibrahim, and M. T. Umasugi, "Pengaruh Edukasi Terhadap Tingkat Pengetahuan Dan Upaya Pencegahan Stunting Anak Usia Balita," *J. Penelit. Kesehat. Suara Forikes*, vol. 9, no. 4, pp. 269–272, 2018.
- [3] S. Efendi, N. Sriyanah, A. S. Cahyani, S. Hikma, and K. K., "Pentingnya Pemberian Asi Eksklusif Untuk Mencegah Stunting Pada Anak," *Idea Pengabd. Masy.*, vol. 1, no. 02, pp. 107–111, 2021, doi: 10.53690/ipm.v1i01.71.
- [4] R. D. Widjayatri, Y. Fitriani, and B. Tristyanto, "Sosialisasi Pengaruh Stunting Terhadap Pertumbuhan dan Perkembangan Anak Usia Dini," *Murhum J. Pendidik. Anak Usia Dini*, vol. 1, no. 2, pp. 16–27, 2020, doi: 10.37985/murhum.v1i2.11.
- [5] E. N. Hasanah, "Hubungan Perkembangan Motorik Halus, Perkembangan Motorik Kasar dan Sosial Emosional terhadap Kejadian Stunting pada Usia 24 – 59 Bulan di Puskesmas Karet Kuningan Kecamatan Setiabudi Tahun 2022," *Open Access Jakarta J. Heal. Sci.*, vol. 2, no. 4, pp. 681–687, 2023, doi: 10.53801/oajjhs.v2i4.128.
- [6] W. Wahidamunir, "Hubungan Kejadian Stunting dengan Tingkat Perkembangan Anak Usia 48-59 Bulan di TK Pertiwi Majene," *J-HEST J. Heal. Educ. Econ. Sci. Technol.*, vol. 2, no. 1, pp. 26–37, 2022, doi: 10.36339/jhest.v2i1.34.
- [7] F. Ernawati, S. Muljati, M. S. Dewi, and A. Safitri, "Hubungan Panjang Badan Lahir Terhadap Perkembangan Anak Usia 12 Bulan (the Association of Body Length With Level of Mental Development of Children At 12 Month Old)," *Penel Gizi Makan*, vol. 37, no. 2, pp. 109–118, 2014.
- [8] G. S. Papotot, R. Rompies, and P. M. Salendu, "Pengaruh Kekurangan Nutrisi Terhadap Perkembangan Sistem Saraf Anak," *J. BiomedikJBM*, vol. 13, no. 3, p. 266, 2021, doi: 10.35790/jbm.13.3.2021.31830.
- [9] M. Banjarmasin and P. Asuh, "Hubungan Pola Asuh Ibu dengan Kejadian Stunting Anak Usia 12-59 Bulan," *J. Ilmu Keperawatan Anak*, vol. 4, no. 1, pp. 37–42, 2021, doi: 10.32584/jika.v4i1.959.
- [10] L. L. S. Mariana Nina Ayu, "Pendampingan Ibu Menyusui Tentang Makanan Pendamping Asi (Mp-Asi)," *Indones. J. Community Serv.*, vol. 1, no. 4, pp. 730–735, 2021, [Online]. Available: <http://ijocs.rcipublisher.org/index.php/ijocs/article/view/146>
- [11] D. W. Puspita Sari, "Kelompok Pendamping Makanan Pendamping Asi (Kp-Mpasi) Di Rumah Sehat Anti Stunting (Rs-As)," *Int. J. Community Serv. Learn.*, vol. 4, no. 1, pp. 44–51, 2020, doi: 10.23887/ijcsl.v4i1.24168.
- [12] P. Jana, Danuri, I. H. Indriati, and I. Asriyanti, "Pendampingan Wirausahawan Menuju UMKM Bangkit Kembali Pasca Pandemi Di Yogyakarta," *JAIM UNIK J. Abdi Masy. Univ. Kadiri*, vol. 6, no. 2, pp. 121–134, 2023.

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