



Training on Providing Additional Food For Prospective Mothers As The Importance of Balanced Nutrition 1000 HPK

Bernadetha*, Joko Sapto Pramono, Yona Palin T

Department of Health Promotion, Poltekkes Kemenkes Kalimantan Timur, Indonesia

*Corresponding author Email: bernadetha93@yahoo.com

The manuscript was received on 1 February 2024, revised on 10 April 2024, and accepted on 3 September 2024, date of publication 4 September 2024

Abstract

According to data from the Health Center Profile, the majority of the population at the trauma center, specifically 10,327 individuals, or 49.1%, are private employees. At the same time, the smallest group, consisting of only 28 people, are scavengers. The health center employs 67 health workers, while the trauma center has 35 integrated health posts, with one integrated health post housing 6 people. In 2022, the prevalence of balanced nutrition in East Kalimantan will be 23.9%, placing it 16th among 34 provinces in Indonesia (SSGI, 2022). In Samarinda City, the prevalence of stunting is 25.3% (SSGI, 2022). This makes the government more aggressive and focused on the stunting problem. However, underweight and wasting strongly influence stunting in East Kalimantan; a decrease in underweight and wasting also reduces stunting. The challenges include a lack of achievement targets for balanced nutrition in the Trauma Center Health Centre's work area, which can be attributed to economic factors and parenting patterns that affect food provision. The Trauma Center Health Center faces several challenges, including a lack of knowledge among health workers, a low community economy, and suboptimal participation from health workers in promoting balanced nutritional health. This study aims to enhance the understanding and accessibility of balanced dietary food for prospective mothers by facilitating simulations and demonstrations of food portioning techniques.

Keywords: *Mentoring, Training, Balanced Nutrition, Practice.*

1. Introduction

Balanced nutrition is an important concept in preventing growth failure in children, especially stunting. Stunting is a condition in which a child appears physically proportional but has a shorter height compared to children of the same age. Extremely poor nutritional intake during pregnancy often triggers this condition before birth. In addition, poor parenting and low-quality food, as well as a high frequency of infection, can significantly inhibit child growth. In addition to nutritional factors, community knowledge also plays an important role in the implementation of balanced nutrition [1]. Previous researchers stated that low levels of knowledge are one of the obstacles to the community's implementation of balanced nutrition guidelines. This obstacle also pertains to the effectiveness of counseling and promotion activities, which continue to encounter numerous challenges in the field. One of these obstacles is the use of ineffective promotional media, which often results in the community not understanding the conveyed information [2]. We need a new strategy to overcome these various obstacles and implement balanced nutrition guidelines in the community. To ensure long-term understanding and maintenance of nutritional information, this strategy must enhance the effectiveness of counseling and promotion, and employ more targeted media. We hope that a more effective approach will lead to a positive change in community nutrition behavior, ultimately achieving the goal of preventing stunting and improving children's health [3].

Balanced nutrition is one of the main problems in community nutrition, particularly for toddlers. The Length for Age (PB/A) or Height for Age (TB/A) index measures this balanced nutrition, categorizing it as stunted (very short). The previous researcher states that a toddler is considered stunted if their Z-score for height for age falls below the normal line, specifically less than -2SD (short) or -3SD (very short). Stunting in toddlers is a worrying indicator because it reflects chronic nutritional problems that affect child growth [4]. The Central Statistics Agency (BPS) projects that Indonesia's population will surpass 275 million in 2022. With a huge population, Indonesia still faces serious challenges in improving the quality of its human resources. Toddlers often experience chronic malnutrition, contributing to the low quality of human resources in Indonesia [5]. This malnutrition not only affects physical growth but also



permanently limits children's cognitive capacity, causing long-term impacts that are difficult to repair. Chronic malnutrition that causes stunting is a problem that requires serious attention because of its broad and permanent impacts. If not handled properly, stunting can limit children's ability to contribute optimally in their adult lives [6]. Therefore, we need to intensify our efforts to raise public awareness about the importance of balanced nutrition and implement effective interventions from the government and other stakeholders to combat malnutrition and enhance the quality of life for Indonesian children [7].

The nutritional status prevalence data collected by Riskesdas and SSGI show that stunting rates in Indonesia are slowly decreasing. The stunting prevalence rate was still 30.8% in 2018, according to Riskesdas (2018). However, in 2022, Indonesia recorded a decrease of 2.8% from 2021, where the stunting prevalence fell from 24.4% to 21.6% based on SSGI 2022 data [8]. Despite the decrease, stunting remains a serious problem in Indonesia, as the prevalence rate is still above 20%. According to SSGI 2022 data, East Kalimantan recorded a prevalence of balanced nutrition at 23.9% in 2022, ranking it 16th out of 34 provinces in Indonesia. In Samarinda City, the stunting prevalence was even higher, reaching 25.3% based on the same data [9]. These figures show that despite efforts to reduce stunting prevalence at the national level, the challenges faced in several regions, including East Kalimantan, are still significant. This condition encourages the government to be more aggressive and focused when dealing with stunting issues. Underweight and wasting factors also strongly influence stunting in East Kalimantan [10]. According to the East Kalimantan City Health Office's data, reducing the prevalence of underweight and wasting can potentially lower the stunting rate. This suggests that comprehensive stunting management is necessary, taking into account various factors that contribute to malnutrition problems in the area [11].

According to the Health Center Profile, the majority of the population at the Trauma Center Health Center works as private employees, with a total of 10,327 people, or around 49.1%. Meanwhile, the smallest group of residents, 28 people, are scavengers. This health center employs 67 health workers, and there are 35 integrated health posts in the area, each with six active cadres [12][13]. A lack of nutritional intake, starting in the womb and continuing after birth, causes nutritional problems in East Kalimantan. Minister of Health Regulation No. 41 on balanced nutrition guidelines regulates the importance of good nutrition for infants during the first 1000 days of life [14]. However, many individuals have not implemented an adequate nutritional intake, primarily due to a lack of knowledge about the importance of balanced nutrition during this critical period [15]. This indicates the need for more attention to increasing public awareness of the importance of nutrition. Therefore, health promotion programs are very important to increase public awareness of balanced nutrition, especially in the work area of the Trauma Center Health Center. This plays a crucial role in educating the community, enabling them to incorporate a healthy diet and balanced nutrition into their daily lives. We expect this effort to contribute to the reduction of nutritional problems in the area [16].

To address these issues, a health promotion program must be developed in collaboration with the Trauma Center Health Center and the local government. We will implement this program through counseling and group discussion methods, using posters and leaflets to provide easily understood information [17]. We expect collaboration with local officials to enhance community participation, particularly in raising awareness about toddler nutritional intake. Thus, we can implement efforts to prevent stunting in the Trauma Center Health Center work area more effectively [18]. According to data from the Trauma Center Health Center profile in 2021, the level of achievement or coverage of nutritional problems in the Tani Aman Village area is still lacking, only reaching 54% of the programmed target. This data also reveals that we have not achieved the 100% target for malnutrition incidence. This less-than-optimal achievement indicates an urgent need for more intensive and focused interventions in efforts to improve nutrition in the area. Given the background outlined above, we will hold a community service program with the theme of education through mentoring. This program aims to increase knowledge about balanced nutrition for prospective mothers in Tani Aman Village. It is hoped that through this program, prospective mothers can better understand the importance of balanced nutrition so that they can prevent stunting and improve nutritional status in the region.

2. Research Method

This research's implementation follows the general stages of preparation, implementation, monitoring, and evaluation. Before the activity begins, the preparation stage meticulously plans to meet all resources and research needs. Moreover, the implementation stage concentrates on carrying out various interventions and data collection in the field, following the prepared plan. Periodic monitoring and evaluation ensure that activities align with the set targets and assess the effectiveness and outcomes of the implemented interventions. Partner participation in this research is very important. Partners play an active role in supporting the implementation of activities through their involvement and participation. They also play a role in encouraging the community to participate in the various activities carried out during the research. We expect active participation from partners and the community to enhance the quality of research results and accomplish predetermined targets. We conducted this research at the Integrated Service Post, located in the Trauma Center Health Center area, from May 8 to August 30, 2024. We chose this location due to its relevance and research needs, which align with the conditions and characteristics of the local community. The long implementation period allows for continuous monitoring and evaluation to ensure the research's success.

3. Result And Discussions

The community service program, which ran from May 8 to August 30, 2024, included mentoring and training in the practice of providing additional food. The Trauma Center Health Center and Tani Aman Village, Samarinda City, East Kalimantan, served as the sites for this activity. During this period, the program aims to improve mothers' knowledge and skills in providing additional food, which is beneficial for their health and that of their children. Of the 86 mothers involved in this program, almost 95% did not know what additional food is or how it benefits mothers and babies. This shows a significant need for further education regarding the importance of providing additional food in supporting children's growth and health. This community service program began with the preparation stage, continued with activity implementation, and ended with an evaluation of the results to assess the effectiveness and impact of the interventions carried out. Overall, this program was successful in equipping mothers in the area with new information and skills, but it also revealed knowledge gaps that require further attention. The evaluation of this program's results will assist in formulating the next steps to improve the program's effectiveness and expand the scope of education regarding the provision of additional food in the future.

To address the existing knowledge gap, the team provided advice on providing additional food. This counseling encompasses a range of crucial topics, from comprehending the fundamentals of additional food provision, its purpose and advantages, to the nutritional value of such food and the necessary preparation ingredients. We anticipate that this counseling will help mothers understand the purpose of providing additional food and its health benefits for both mothers and babies. Additionally, we provide them with information on the correct schedule for providing additional food, enabling them to implement this practice effectively in their daily lives. We expect mothers to better understand and apply the knowledge they have gained about providing additional food after the counseling, enabling them to prepare and serve additional food that supports their children's health and growth. After demonstrating how to make additional food, the community service team continued mentoring the mothers to ensure that the results were as expected. This mentoring aims to control and monitor mothers' compliance in providing nutritional intake to their children. The team will monitor and evaluate the application of the provided knowledge during the mentoring process, and provide additional guidance as needed. We expect mothers to become more consistent in implementing the practice of providing correct and effective additional food with this assistance. Assistance also ensures that the nutritional intake provided is following the established standards so that the final results achieved can meet the program's objectives and provide maximum benefits for maternal and infant health.

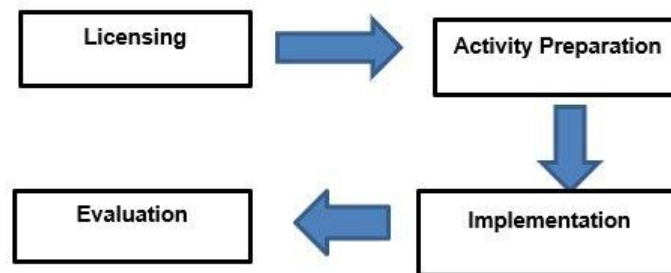


Fig 1. Flow of Activities

Table 1. Success of Community Service Programs

No	Activity	Team Name	Day/Date of Implementation	Place	Results of Program Activities/Achievements
1	Agreeing with the safe farmer village	Bernadetha Joko Sapto Yona Palin	Thursday, June 22, 2023	Tani Aman Village	From the results of the agreement with the Tani Aman sub-district to prepare the implementation location.
2	Coordination with the trauma center health center related to implementing community service activities.	Bernadetha Joko Sapto Yona Palin	Monday, February 5 and 12, 2024	Trauma Center Health Center	From the results of coordination with the health center, they are ready to help participate in the implementation of community service activities.
3	Arranging the baby, toddler, and child food menu	Bernadetha Joko Sapto Yona Palin	Tuesday, March 18, 2024	Ms. Detha's Room	Printing media to be distributed during implementation
4	Creating Community Service Media	Bernadetha Joko Sapto Yona Palin	Tuesday, March 19, 2024	Nutrition Lab Room	Printing questionnaires for Organoleptic Testing (Like Testing) activities
5	Creating a Questionnaire	Bernadetha Joko Sapto Yona Palin	Monday, March 25, 2024	At the House of one of the Integrated Service Posts	Additional food preparation carried out
6	Re-trialing the practice of providing food on the importance of balanced nutrition	Panelist Test to respondents	Tuesday, March 25, 2024	Nutrition Lab Room	Implemented and successful in preliminary testing for panelists
7	Panelist test respondents	Bernadetha Joko Sapto Yona Palin	March-August 2024	At-home integrated service post	Conducting additional food training for mothers
8	Additional food practice training for healthy lifestyles in choosing healthy foods to increase balanced nutritional intake	Bernadetha Joko Sapto Yona Palin	March and August 2024 according to the integrated health post-schedule	Integrated Health Post in the Trauma Center Health Center area of Tani Aman Village	Practice making additional food The activity was attended by 86 mothers, health centers, and the sub-district
9	Implementation of Empowerment with the Mentoring method to improve health knowledge and skills, health workers and target partners with food portion demonstrations	Bernadetha Joko Sapto Yona Palin	July 2, 2024	Implementation team, health center, Integrated Service Post, and village	1. Monev was conducted by the community service team 2. Monev was conducted at the integrated service post in the Trauma Center Health Center and Tani Aman Sub-district
10	Implementation	Bernadetha	August 8, 2024	Implementation team	Report and Activity Attachments have

Monitoring and Evaluation	Joko Sapto Yona Palin	been completed
---------------------------	--------------------------	----------------

We implemented the community service program, focusing on mentoring and education about providing additional food, after obtaining permission from the Trauma Center Health Center and Tani Aman Village. We designed this mentoring program to enhance the awareness and understanding of residents in Tani Aman Village and the surrounding area of the Trauma Center Health Center, emphasizing the significance of providing a balanced diet for infants, toddlers, and children. This program's primary goal is to make sure the community comprehends the essential nutritional requirements for their children's growth and development. The mentoring process began by providing basic information regarding the definition of supplementary food, its purpose, and benefits, as well as the nutritional content required in supplementary food. In addition, the community service team demonstrated how to prepare supplementary food, giving mothers practical examples of how to prepare nutritious food. We designed this approach to simplify the information and facilitate its application in daily life. Following the demonstration, the team proceeded to provide direct mentoring to the mothers, ensuring their adherence to the imparted knowledge. Regular visits and question-and-answer sessions were part of this mentoring, aimed at addressing any potential problems or challenges in the practice of providing additional food. This way, the team can ensure that the nutritional intake provided is in accordance with children's standards and health needs. The results show that this assistance has succeeded in increasing residents' knowledge and information about the importance of achieving balanced nutrition. The community now has a better understanding of how to provide the right supplementary food for infants and toddlers. This approach not only helps to prevent stunting, but it also contributes to improving the health and well-being of children in Tani Aman Village and the area around the Trauma Center Health Center.

In developing a nation, improving human quality must start early, namely in infants, toddlers, and children. It is crucial to provide proper nutritional intake from an early stage of life to realize and build quality human resources. Community service programs that focus on providing supplementary food aim to support optimal nutritional fulfillment for children in the surrounding environment, thereby helping to achieve better overall health. The community and mothers have implemented the practice of providing supplementary food, and many have begun to apply the correct methods in preparing and serving it. This not only helps ensure that children get the necessary nutrition, but also improves mothers' skills in preparing nutritious food. Thus, this program serves as a means to improve mothers' knowledge and skills in terms of nutritional fulfillment. In addition to improving mothers' skills in making supplementary foods, this program has additional benefits as a means of education. This program provides important information on how to provide appropriate and nutritious supplementary foods to support optimal child growth and development. The knowledge gained by mothers through this program is very valuable in efforts to optimize children's health and prevent nutritional problems such as stunting. We hope that this program's increase in knowledge and skills will improve the quality of nutrition for children in their surrounding environment. This is an important step in building a healthy and quality future generation, as well as supporting the development of better human resources for the nation.

The community, particularly local mothers, greatly needs the demonstration of supplementary feeding methods. This activity provides practical guidance on how to apply supplementary feeding techniques in everyday life. With this demonstration, mothers can directly see and learn the steps needed to prepare nutritious food that is suitable for their babies and toddlers. Through the demonstration, mothers gain a better understanding of how to process available ingredients into supplementary food that meets their children's nutritional needs. This activity aids in dispelling any confusion or uncertainty about preparing and administering supplementary feeding, offering practical examples for follow-up. In addition, this demonstration also provides an opportunity for mothers to ask questions and get direct answers from experts or facilitators. This way, they can overcome problems or challenges they may face when applying knowledge about supplementary feeding at home. Overall, the demonstration of making supplementary feeding serves as a very effective educational tool, facilitating a better understanding of balanced nutrition practices and supporting mothers in directly improving their children's nutritional quality.

We hope that the demonstration of supplementary food preparation will enable residents, particularly mothers, to incorporate this practice into their daily lives. The purpose of this is so that mothers who have obtained the right knowledge can effectively apply it in providing supplementary food to their children. Having a thorough understanding of how to provide supplementary food significantly impacts the nutritional intake children receive, thereby promoting their growth and development more effectively. This demonstration equips mothers with both theoretical knowledge and immediately applicable practical skills. This allows them to be more confident in preparing nutritious supplementary food, as well as making better decisions about fulfilling their children's nutrition. Through the application of this knowledge, we aim to accomplish the program's objective, which is to enhance the nutritional intake of children in their surroundings. Good nutrition is a critical factor in developing quality human resources. By ensuring that children get adequate nutritional intake, we contribute to the formation of a healthy and productive generation in the future. We expect this program to sustainably improve children's health and welfare, while also fostering the development of quality human resources.

4. Conclusion

From May 8 to August 30, 2024, the Trauma Center Health Center and Tani Aman Village in Samarinda City, East Kalimantan implemented the program, which significantly improved mothers' knowledge and skills regarding supplementary feeding. During the 8-month period, the program succeeded in educating 86 mothers, almost 95% of whom previously did not know about supplementary feeding and its benefits. This activity involved mentoring, training, and demonstrations on how to make supplementary food to support maternal and infant health. The counseling provided a basic understanding of supplementary feeding, including its purpose, benefits, nutritional content, and the necessary ingredients for preparation. The demonstration of making supplementary feeds provided practical guidance that was much needed by local mothers. The demonstration allowed mothers to directly practice making supplementary food in their daily lives, thereby increasing their compliance in applying the acquired knowledge. The mentoring carried out after the demonstration aimed to ensure that mothers could apply their knowledge well, as well as monitor compliance in providing nutritional intake to their children. The program not only provides practical skills but also increases understanding of the importance of achieving balanced nutrition to support children's growth and health. Overall, the program has effectively enhanced the residents' knowledge and skills in supplementary feeding, while also pinpointing knowledge gaps that require further attention. We hope that improved implementation and increased knowledge will enhance the nutritional intake quality for children in the environment, thereby supporting the development of quality human resources and fostering a healthy and productive future generation.

References

- [1] Kemenkes RI, “*Balitbangkes, Hasil Utama Riskesdas.*” Jakarta, (2018).
- [2] Menteri Kesehatan RI, “*Buku Saku Hasil Studi Status Gizi Indonesia (SSGI) Tingkat Nasional, Provinsi, dan kabupaten/kota tahun 2022,*” Menteri Kesehatan RI, (2022).
- [3] Dinas Kesehatan Kota Samarinda, “*Jumlah Kasus Gizi Berbasis Puskesmas Kalimantan Timur,*” (2018)
- [4] Profil Puskesmas Trauma Center Tahun (2022)
- [5] Hermina and Prihatini, “*Gambaran Konsumsi Sayur dan Buah Penduduk Indonesia dalam Konteks Gizi Seimbang : Analisis Lanjut Survei Konsumsi Makanan Individu (SKMI),*” Buletin Penelitian Kesehatan, (2016).
- [6] Prawirohartono, E. P, “*Stunting dari Teori dan Bukti ke Implementasi di Lapangan,*” Sleman: Gajah Mada University Press, (2021).
- [7] Badan Pusat Statistik (BPS), 2022.
- [8] BPS Indonesia, “*Jumlah Penduduk Pertengahan Tahun 2020-2022,*” <https://www.bps.go.id/indicator/12/1975/1/jumlah-penduduk-pertengahan-tahun.html>, (diakses pada 20 April 2023).
- [9] Puskesmas Trauma Center, “*Laporan Tahunan 10 Penyakit Terbanyak Puskesmas Trauma Center,*” Kota Samarinda, (2022).
- [10] Wibisono, G, “*Antara Kaltim: BKKBN: Prevalensi stunting Kaltim naik menjadi 23,9 persen,*” (2023), <https://kaltim.antaranews.com/berita/178764/bkkbn-prevalensi-stunting-kaltim-naik-menjadi-239-persen>,(diakses pada 20 April 2023)
- [11] Annur, C. M, “*Databoks: Calon Ibu Kota Baru, Bagaimana Angka Balita Stunting di Wilayah di Kalimantan Timur?*” (2023), <https://databoks.katadata.co.id/datapublish/2023/02/27/calon-ibu-kota-baru-bagaimana-angka-balita-stunting-di-wilayah-di-kalimantan-timur>, (diakses pada 20 April 2023).
- [12] Intoniswan, “*NIAGA.ASIA: Pemda di Kaltim Perlu Konsisten Mengatasi Masalah yang Berkontribusi Terjadinya Stunting,*” (2023), <https://www.niaga.asia/pemda-di-kaltim-perlu-konsisten-mengatasi-masalah-yang-berkontribusi-terjadinya-stunting>, (diakses pada 19 April 2023).
- [13] Widiyanto, D, “*SCRIBD: Proposal Stunting,*” (2009), <https://www.scribd.com/document/440725936/proposal-stunting-docx#> (diakses pada 18 April 2023).
- [14] Sarman, & Darmin, “*Epidemiologi Stunting,*” Kab. Pidie: Yayasan Penerbit Muhammad Zaini, (2021).
- [15] Ruswati, & dkk, “*Risiko Penyebab Kejadian Stunting pada Anak,*” *Jurnal Pengabdian Kesehatan Masyarakat*, (2021), pp: 34-38.
- [16] Liem, S., Panggabean, H., & Farady, R. M, “*Persepsi Sosial Tentang Stunting Di Kabupaten Tangerang,*” *Jurnal Ekologi Kesehatan*, Vol. 18, No. 1, (2019), pp: 37-47.
- [17] Diskes, “*Diskes Kalimantan Timur: Cegah Stunting! Ibu Hamil Wajib Konsumsi Protein Hewani,*” (2023), <https://diskes.badungkab.go.id/artikel/47972-cegah-stunting-ibu-hamil-wajib-konsumsi-protein-hewani>, (diakses pada 19 April 2023)
- [18] Yuni Tamara Lubis, “*Hubungan Penerapan Prinsip Gizi Seimbang Dengan Status Gizi Pada Mahasiswa Jurusan Gizi Poltekkes Kemenkes Medan,*” Medan: Politeknik Kesehatan Kemenkes Medan, (2018).