



Cadre Empowerment In Diversification Of Locally Sourced Complementary Feeding: Community Based Research Through Smart Integrated Service Post (Posyandu)

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Abstract: *Inappropriate feeding practice is one main cause of malnutrition onset among infants and toddlers. Community service program in diversification of locally-sourced complementary feeding (MPASI) in Subdistrict of Dukuh Menanggal, Surabaya City is aimed at the empowerment of integrated service post (posyandu) cadres employing Community Based Research (CBR). Workshop as the chosen learning model of diversification of locally-sourced complementary feeding plays a significant role in improving knowledge and attitude among the mothers of infants and toddlers. Poor knowledge (35.38%) increased to good (64.61%), while poor attitude (30.76%) also increased to good (69.23%) The best internalization of posyandu cadres' roles and functions is through the workshop activity and the integration of Smart Posyandu under the supervision of Community Health Center (Puskesmas), supported by the role of health academicians as assistants along with active participation of posyandu cadres as well as other community elements.*



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Introduction

Nutrition plays an important in the life cycle of humans. In infants and toddlers, undernutrition can result in growth and development disorder. Furthermore, when it is not immediately solved, it will further continue to adults. There are 4 (four) nutrition problems requiring special attention, i.e. weight faltering, underweight, undernutrition, and malnutirion. In overcoming those nutrition problems, interventions can be done since early pregnancy and during the period of complementary feeding (Makanan Pendamping ASI/MPASI).¹

¹ Cahyaningrum Hapsari W, Masrurroh, "Pemberian Informasi Tentang Pemberian Makan Bayi

According to Indonesia Nutrition Status Survey (SSGI) in 2022, stunting prevalence in Indonesia decreased from 24.4% in 2021 to 21.6% in 2022. Despite the decreasing tendency, it has not even yet reached the target of 14% in 2024. Meanwhile, in the Surabaya City of East Java Province, the stunting prevalence in the early of January 2023 was 923 cases and, in the end of 2023, it was 523 cases, aimed to reach the final target of zero stunting.² The nutritional status of infants/toddlers can be improved by administering Guiding Principles for Infant and Toddler Complementary Feeding (PMBA). Concerning PMBA, World Health Organization (WHO) recommends either early initiation of breastfeeding (Inisiasi Menyusu Dini/IMD), exclusive breastmilk, complementary feeding, and breastmilk up to 2 years of age. Nutritious complementary feeding (MPASI) is given to infants of 6 – 24 months of age.³

Provision of complementary feeding to infants aged 6 – 24 months is one of nutrition improvement programs aimed to improve both the quantity and the quality of the complementary feeding. Many children undergo undernutrition because of feeding which was too early. One effort in preventing undernutrition and stunting is by promoting complementary feeding in terms of its quantity, punctuality, and quality. Complementary feeding provisioned to 6-month infants serves to meet their nutritional needs in addition to breastmilk.⁴ The proper complementary feeding must not be expensive nor replicating complicated recipes with specifically purchased seasonings just as the ones overappeared in social media⁵ The provision of locally sourced complementary feeding or more commonly called “mother’s kitchen” has several positive impacts, i.e. mothers will better understand and be more skilled in making the locally sourced complementary feeding in accordance with local daily habits and sociocultural aspects. Hence, the mothers can independently administer locally sourced complementary feeding without having to purchase any ready-to-serve one. Sociocultural and empowerment aspects in provisioning complementary feeding are truly required

Dan Anak Usia 0–24 Bulan,” *Indonesian Journal of Community Empowerment (IJCE)* 1, no. 1 (2019): 23–28, <http://jurnal.unw.ac.id:1254/index.php/IJCE/article/download/321/276>.

² Pemkot Surabaya, “GOTONG ROYONG SURABAYA MENEKAN STUNTING, HINGGA ANGKANYA TERENDAH SE-INDONESIA,” 2023, <https://www.surabaya.go.id/id/berita/76370/gotong-royong-surabaya-menekan-stunting-hingga-angkanya-terendah-se-indonesia>.

³ WHO, *Guiding Principles for Complementary Feeding of The Breastfed Child*, 2001, https://www.who.int/nutrition/publications/guiding_principles_compfeeding_breastfed.pdf.

⁴ Anik Kurniawati and Rohmi Handayani, “Pelatihan Kader Posyandu Dalam Pembuatan Makanan Pendamping ASI (MP ASI) Dengan Konsep Empat Bintang Dalam Upaya Mendukung Tumbuh Kembang Balita,” *Kolaborasi: Jurnal Pengabdian Masyarakat* 3, no. 3 (2023): 187–92, <https://doi.org/10.56359/kolaborasi.v3i3.287>.

⁵ GKIA and Kemenkes RI, *Makanan Pendamping Air Susu Ibu*, GKIA, 2024.

in the diversification of complementary feeding.⁶

Knowledge on infant and toddler feeding must be possessed by each family having infants and toddlers aged 6 – 24 months so that they are able to prepare and administer appropriate complementary feeding in each family. Assistance from the closest people, in this sense, including from *posyandu* cadres, is essential. Consequently, *posyandu* cadres need to be trained in order to ensure that they have proper knowledge concerning complementary feeding.⁷ The skilled *posyandu* cadres play a huge role in the success of complementary feeding provision, the improvement of mother's empowerment, the improvement of family member support, as well as the quality improvement of the food of infants and toddlers which eventually will improve their nutritional status. Accordingly, *posyandu* cadres must be equipped with knowledge as the basic of assisting health service among infants and toddlers in their subdistrict/village due to their nearest proximity.⁸

Posyandu cadres are the main access to the mothers of infants in Dukuh Menanggal, Subdistrict of Gayungan, Surabaya to have better health. They are crucial because of the underlying issues of low level of self awareness and limited ability to gain access to knowledge regarding balanced nutrition fulfillment as well as any effort to improve the health of mothers and infants. *Posyandu* becomes the most appropriate medium to optimize the first 1,000 days of life (HPK) to manage the nutrition of infants and toddlers.⁹

This community service program involves all community elements, especially the *posyandu* cadres as the empowerment core. The empowerment concept of *posyandu* cadres is oriented to the improvement of understanding and awareness concerning the diversification of locally sourced complementary feeding, as well as the improvement of reeducating skills toward public group/mothers of infants within their environment. The empowerment also focuses on the internalization of function and active role of *posyandu* cadres as the driving force in cultivating understanding as well as manifesting community's awareness. The final aim is to manifest community empowerment, especially in terms of cadres in complementary feeding diversification.

⁶ Kemenkes RI, *Buku Kesehatan Ibu Dan Anak* (Jakarta, 2023).

⁷ Perinasia, *Modul Pelatihan Pembuatan Makanan Pendamping ASI*, 2019.

⁸ Wulan Margiana and Khamidah Achayar, "Menu Mpasi 4 Bintang Anti Balita Stunting Pada Kader Nasyiyatul," no. 2010 (2021): 2013–15.

⁹ Ria Nur Faizah, Iraini Ismail, and Netty Dyah Kurniasari, "Peran Kader Posyandu Dalam Penurunan Angka Stunting," *As-Syar'i: Jurnal Bimbingan & Konseling Keluarga* 6, no. 1 (2023): 87–96, <https://doi.org/10.47467/as.v6i1.5738>.

Method

The community service program was conducted in the Subdistrict of Dukuh Menanggal which becomes one of 4 (four) subdistricts located within the area of Gayungan District, Surabaya City, East Java Province. This subdistrict covers the total area of 143.395 Ha/143 km² dominated by residential areas comprising 57.743 Ha. The subdistrict's elevation is 5 meters above sea level and accessible by land transportations within the reach of 3 km from the downtown of Surabaya City. In terms of administrative affairs, the subdistrict consists of 9 RWs, 31 RTs, with a total number of 1,967 family heads and a total number of 110 *posyandu* cadres.

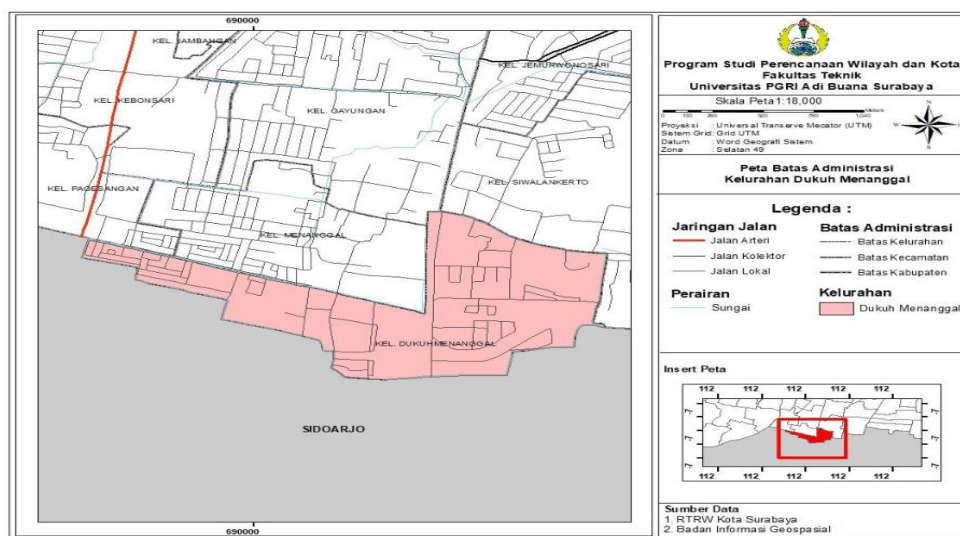


Figure 1. Administration Map of Dukuh Menanggal Subdistrict

The community service in Dukuh Menanggal Subdistrict, Gayungan District, Surabaya city also adopts Community Based Research (CBR) strategy. CBR is a research model prioritizing the community's needs as well as requiring active participation of all existing elements within the community to seek for solution to any problem emerging from it. *Community Based Research* (CBR) also known as *Community Based Participatory Research* (CBPR) emphasizes on collaborations between community elements and higher education elements which are action-based and service learning-based oriented to build social movements for social justice manifestation.¹⁰

¹⁰ Susilawaty A et al., *Panduan Riset Berbasis Komunitas (Community Based Research)* (Makassar: Penerbit Nur Khairunnisa, 2016).

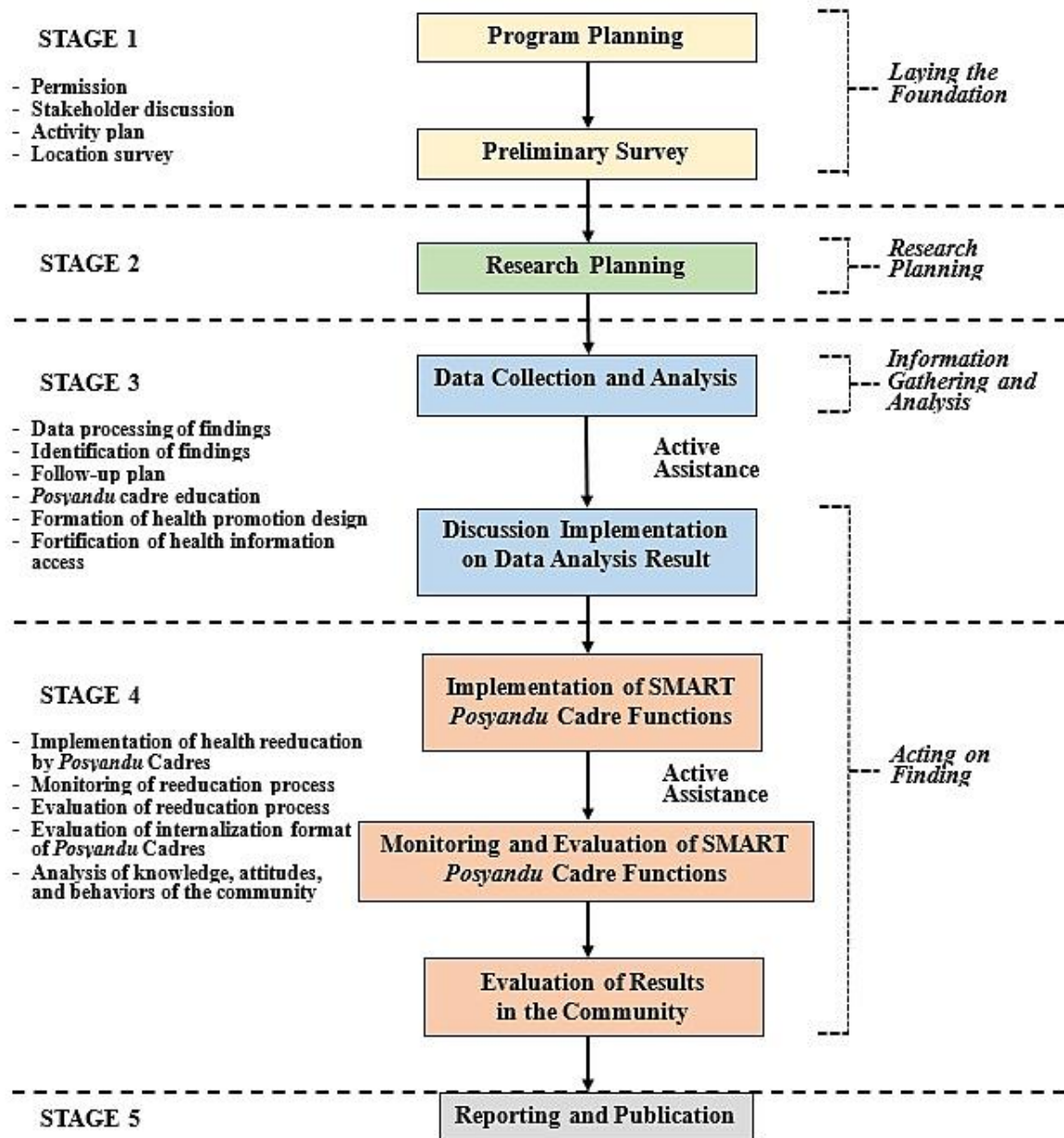


Figure 2 Operational Stages of Community Empowerment Activity Based on the *Community Based Research (CBR)* Approach

The monitoring and evaluation for each activity that has been carried out is in the form of direct observation during the activity or through a pretest-posttest instrument on knowledge and attitudes (cadres & mothers of toddlers) related to locally-based MPASI.

Result

Laying the Foundation (CBR)

The initial step of this activity was the activity socialization becoming a communication process of community service program to the public aimed to introduce the objectives, form, and background of the community service on the topic of the complementary feeding (MPASI) and make the community members understand them well. This step was done by lecturers belonging to the community service group on 15 August 2024 involving the participants, i.e. Head of Subdistrict, representatives of Community Health Service (Puskesmas), local health cadres, as well as the Committee of the Family Empowerment and Welfare (PKK).

During the socialization activity, the community members were educated that the community service is a response of the academicians to the needs, challenges, or problems faced by the community, either directly or indirectly, especially concerning the nutritional issues of infants and toddlers (MPASI) by means of strengthening knowledge, attitude, skills, and behavior changes. This community service requires targeted community's active and creative participation, i.e. The Great Surabaya Cadres (KSH) who will not only serve as the subjects of education and health promotion but also the health agents who actively partake in improving understanding, attitudes, and positive behaviors regarding complementary feeding in other community groups.

The next step was identifying the complementary feeding problems existing within the public utilizing *Focus Group Discussion* (FGD). FGD is a data collection technique where a small group of participants focusedly discusses along with the direction provided by a facilitator on a certain topic. This technique has five characteristics, i.e. participant restriction, participant independence, becoming a data collection tool, having qualitative data with open-ended questions, and utilizing focused discussion in its process.¹¹

The issue of providing complementary feeding (MPASI) in Dukuh Menanggal Subdistrict culminates in stunting problems. Stunting in toddlers is one of the factors triggering nutritional issues, including exclusive breastfeeding, Infant and Toddler Complementary Feeding (PMBA), developmental delays, and the provision of complementary feeding (MPASI). Problem identification was carried out using Focus Group Discussion (FGD) technique involving several participants who are considered to understand the issues of toddler nutrition and stunting in Dukuh Menanggal Subdistrict, starting with the distribution of a Screening Questionnaire.

The FGD process was guided by the use of an FGD manual containing a series of key questions related to nutrition/stunting issues in Dukuh Menanggal

¹¹ RA Krueger, *Focus Groups: A Practical Guide for Applied Research* (Thousand Oaks: CA: Sage Publication, 1998).

Subdistrict, along with alternative solutions that can be provided in handling them.

Table 1. Summary of FGD Results on Identifying Nutritional Issues and Complementary Feeding (MPASI)

Main Pattern	Remark
General understanding of nutrition issues in toddlers	<ul style="list-style-type: none"> - In general, most participants have adequate knowledge regarding the provision of complementary feeding feeding (MPASI) to infants. - This knowledge is also supported by positive attitudes toward nutrition problems and their relations to the provision of complementary feeding feeding (MPASI)
Scope of toddlers nutritional issues	<ul style="list-style-type: none"> - The nutritional issues in Dukuh Menanggal Subdistrict stem from the occurrence of stunting. - Nutritional issues are more understood as a matter of the habits of mothers of toddlers in providing complementary feeding (MPASI). - The impact of nutritional issues is more focused on health and economic aspects, with little attention to social aspects. - The causes of nutritional issues are not believed to be triggered by the low education level of mothers of toddlers, incorrect parenting in providing MPASI, mothers of toddlers working, and inadequate economic factors, while low health information and education receive less attention.
Practical education of locally-sourced complementary feeding	<ul style="list-style-type: none"> - The understanding of the actualization of MPASI education is more oriented towards economical, practical, healthy, and quality perspectives. - The complexity and difficulty in preparing and processing MPASI are reasons why MPASI education is rarely conducted, both formally and informally.
Responses related to the educational model of providing locally-sourced complementary feeding (MPASI) in community service	<ul style="list-style-type: none"> - Not all participants fully support the materials on providing MPASI, especially those related to the processing of MPASI ingredients - There is a prejudice that the direct educational approach of providing locally-based MPASI can actually trigger economic problems. - In general, participants support the P-Process concept as the <i>grand design</i> of community service, where cadres, in addition to being targets for education on providing locally-based MPASI, are also prepared, trained, and given the responsibility to re-educate other community groups (mothers of toddlers).
Suggestions related to the educational model	<ul style="list-style-type: none"> - Do not present complicated materials on providing locally-sourced complementary feeding (MPASI).

<p>of providing locally-sourced complementary feeding (MPASI) in community service</p>	<ul style="list-style-type: none"> - Do not conduct education on providing locally-sourced MPASI that is expensive and hard to obtain. - Strengthening education on providing locally-sourced MPASI through not only a health perspective but also economic and social perspectives. - Expanding education on providing locally-sourced MPASI to groups of mothers of toddlers so that in the future they can personally provide appropriate and correct MPASI.
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Conclusion:

- a. In general, knowledge and positive attitudes towards providing complementary feeding (MPASI) are quite good.
- b. Acceptance of the education on providing locally-sourced complementary feeding (MPASI) with some notes on the delivery concerning the nutritional status of children and stunting.
- c. There is support for the concept of P-Process-based education and re-education with the involvement of social and economic aspects.
- d. The hope that the activity program is not only instantaneous but can also be sustainable for other issues such as the detection of child growth and development.

Analysis

Initial data on the provision of locally-sourced complementary feeding (MPASI) in Dukuh Menanggal Subdistrict was obtained through observation or direct observation of the knowledge of cadres related to the provision of locally-sourced MPASI using a questionnaire. The questionnaire was aimed to gather information about the knowledge level and attitudes of cadres regarding locally-sourced MPASI. This observation and data collection through the questionnaire were conducted on August 15, 2024.

In general, the average education level of cadres in Dukuh Menanggal Subdistrict is equivalent to high school (SMA), with some having junior high school (SMP) education. The cadres spend most of their daily lives at home, with some working or helping with their husband's work. A total of 65 cadres (women) in Dukuh Menanggal Subdistrict were assessed for their knowledge level and general understanding of providing locally-sourced complementary feeding (MPASI) and their attitudes towards behaviors related to providing locally-sourced MPASI. The majority of cadres in Dukuh Menanggal Subdistrict have generally good knowledge regarding the provision of locally-sourced MPASI. Similarly, their attitudes towards the behavior of providing locally-sourced MPASI are also positive, with most cadres showing a positive attitude towards the provision of locally-sourced MPASI.

Table 2. Knowledge and Attitudes of Cadres Related to Locally-Sourced Complementary Feeding (MPASI)

Category	Knowledge		Attitude	
	Sufficient	Inadequate	Positive	Negative
Animal-sourced protein complementary feeding	42	23	45	20
Locally sourced complementary feeding	37	28	41	24
Complementary feeding period	35	30	36	29
Complementary feeding processing	38	27	34	31
Complementary feeding storing	34	31	37	28
Nutrient Adequacy Ratio	39	26	40	25

Most cadres have sufficient knowledge about complementary feeding (MPASI). Similarly, their attitudes towards providing MPASI show the same tendency, with most having a positive attitude.

Research Planning

Health education was conducted in the form of a one-day workshop on August 22, 2024. This training involved the community service team (lecturers), the health student team from UINSA, targeting the health cadres of Dukuh Menanggal Subdistrict. The content of the material included stunting, locally-based complementary feeding (MPASI), and health education techniques, which were tailored according to the results and input from community members from the previous FGD activities.

In this activity, the community service team, assisted by students, along with the target community (Health Cadres) actively participated in the design of health message content and health promotion techniques with the central theme of locally-based complementary feeding (MPASI). This activity represents the third step of the P-Process model (*development*), which focuses on the formulation of message design, media, and health promotion and education techniques.

The communication planning flow through media design is generally illustrated in a 5-step diagram. First is the analysis of epidemiological aspects (prevalence, characteristics of patients, risk factors, and main causes of disease) and behavioral aspects including behaviors, causes, modes of transmission, prevention methods, actions, and seeking treatment. Second is the design of health communication, such as determining targets, specific objectives, message content,

action strategies, and media development. Third is media development by directly involving the community participating in the program activities. Fourth is implementation, monitoring, and assessment, which encompasses short-term, mid-term, and long-term measurements. Fifth is program review as a continuous process. This means that the evaluation results of a communication program serve as feedback and input for the subsequent program.¹²



Figure 3. Cadre Education on Locally-Sourced Complementary Feeding (MPASI)

Information Gathering and Analysis

The workshop was held on August 29, 2024, at the Dukuh Menanggal Subdistrict Hall. This activity served as an educational practice in making locally-based complementary feeding (MPASI) by involving cadres and selected mothers of toddlers who have infants aged 6–12 months as participants in the practice of making locally-based MPASI. These participants played an active role in the training, particularly targeting groups of mothers of toddlers. Meanwhile, the community service team (lecturers) and the health student team from UINSA acted more as facilitators of the activity.



Figure 4. Workshop of the Making of Locally-Sourced Complementary Feeding

¹² Soekidjo Notoatmodjo, *Ilmu Kesehatan Masyarakat* (Jakarta: PT. Rineka Cipta, 2005).

A workshop is a period of discussion and practical work on a particular subject, where a group of people share their knowledge and experiences. In terms of learning methods, workshops use interactive learning methods and actively involve participants. Workshop participants are encouraged to discuss or practice. Through this workshop model, it is hoped that the mothers of toddlers in Dukuh Menanggal Subdistrict, as the target group, do not feel compelled to receive important information related to the preparation of locally-based complementary feeding (MPASI) from their instructors. Conversely, the instructors, who are the Health Cadre Team of Dukuh Menanggal Subdistrict, feel freer to convey information about locally-sourced MPASI to the target group, which is the mothers of toddlers. Additionally, the process of education and health promotion itself runs more dynamically in a two-way manner, as both the health instructors and the target group are very open in discussion and Q&A.

Acting on Findings

Basically, monitoring and evaluation activities have been parts of every stage of the community service process and are carried out in tandem with the activities that are part of the community service agenda in Dukuh Menanggal Subdistrict. The community service team consistently conducts monitoring and evaluation of each activity that has been carried out as input for the implementation of subsequent activities, both through direct observation during the activities and through pretest-posttest instruments on the knowledge and attitudes (of cadres and mothers of toddlers) related to locally-sourced complementary feeding (MPASI).

However, the final evaluation of the process and results of the community service activities was carried out on September 5, 2024, involving the apparatus of Dukuh Menanggal Subdistrict, health cadres, and other community members (mothers of toddlers), facilitated by the community service team. This evaluation activity is the 5th stage of the CBR approach, which includes the evaluation of the education and reeducation process of locally-sourced complementary feeding (MPASI), evaluation of the internalization of the health cadre function, and analysis of changes in knowledge and attitudes of the community (cadres) related to providing locally-sourced MPASI. The results of this evaluation will serve as input for replanning as a form of follow-up to community service activities in Dukuh Menanggal Subdistrict, especially for health cadres to independently maintain the sustainability of education and health promotion activities related to nutritional issues in other community groups (mothers of toddlers).

Changes in the level of knowledge about the preparation of locally-sourced complementary feeding (MPASI) were measured through a *pretest-posttest* instrument using *Paired T-Test* analysis with a 5% error rate.

Table 3. Paired T-Test of Knowledge Aspects

		Paired Samples Test					t	df	Sig. (2-tailed)
		Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1	Knowledge_Pre - Knowledge_Postt	-3.215	1.111	.138	-3.491	-2.940	-23.335	64	.000

Statistical tests showed that the practical training in the preparation of locally-sourced complementary feeding (MPASI) contributed to increasing the knowledge of health cadres in Dukuh Menanggal Subdistrict related to MPASI, with a significance value (2-tailed) of 0.0001 ($p < 0.05$).

Meanwhile, changes in attitudes about the preparation of locally-sourced complementary feeding (MPASI) were measured through a pretest-posttest instrument using *Paired T-Test* analysis with a 5% error rate.

Table 4. Paired T-Test of Attitude Aspects

		Paired Samples Test					t	df	Sig. (2-tailed)
		Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1	Attitude_Pretest - Attitude_Posttest	-4.092	1.355	.168	-4.428	-3.757	-24.355	64	.000

Statistical tests showed that the practical training in the preparation of locally-sourced complementary feeding (MPASI) contributed to positive changes in the attitudes of cadres in Dukuh Menanggal Subdistrict towards MPASI, with a significance value (2-tailed) of 0.0001 ($p < 0.05$).

The final evaluation form of the cadre empowerment activities in providing Nagita’s locally-sourced complementary feeding (MPASI) in Dukuh Menanggal Subdistrict was conducted as the final stage of community service, involving village officials, health cadres, health workers, and other community members using SWOT analysis.

Table 5. SWOT Analysis Related to the Provision of Complementary Feeding (MPASI)

Internal Factors	Strengths	Weaknesses
	<ol style="list-style-type: none"> 1. Conducted by, from, and for the cadres 2. The language of delivery is engaging and easily understood 3. More flexible time and activity format 	<ol style="list-style-type: none"> 1. Insufficient depth of materials 2. Insufficient counselling technique 3. Not all cadres are willing and able to participate in the activities
External Factors	Opportunities	Strategi (SO)
	<ol style="list-style-type: none"> 1. There is a Smart Posyandu (integrated health service post) 2. Good support from subdistrict apparatuses, health workers, and the community 	<ol style="list-style-type: none"> 1. Training of cadres on education and health promotion by puskesmas (community health center) cadres 2. Intervention by subdistrict apparatuses to strengthen youth involvement in activities
	Threats	Strategi (WT)
	<ol style="list-style-type: none"> 1. Lack of intensive assistance from external parties 2. Other activities that can distract the focus of the health cadres 	<ol style="list-style-type: none"> 1. Continuous assistance for cadres by health academics 2. Strengthening the culture of togetherness among health cadres
	Strategi (ST)	
	<ol style="list-style-type: none"> 1. Bridging between cadres and other parties regarding health programs 2. Increase the number of regular cadre agendas with health and nutrition themes 	

From the 8 alternative strategies obtained as input for the SWOT evaluation, priority strategies were then selected through scoring by all elements of the community participating in the evaluation activities. These priority strategies are used as input in the replanning of health-based activity programs as a form of future internalization of health cadres independently.

Discussion

The practice of diversification and providing complementary feeding (MPASI) to infants by mothers of toddlers in Dukuh Menanggal Subdistrict still faces difficulties in making and processing it independently. As a result, MPASI still uses factory-made ingredients that are not real food. For the preparation of liquid/pureed MPASI, mothers of toddlers usually choose the practical method of buying instant porridge, which is easy and quick to prepare. Meanwhile, for textured MPASI (ages 9-23 months), they more often buy meatballs and instant noodles, which are easy to obtain.

The problem-solving process for the nutritional status of toddlers, which lacks quick response from the community, causes various detrimental impacts in Dukuh Menanggal Subdistrict, especially in cases of undernutrition in toddlers. The role and awareness of the community, which is less concerned about the diversification of locally-sourced complementary feeding (MPASI), leads to stunting in toddlers. On the other hand, the solution to addressing undernutrition in toddlers tends to be slow. The busy work of parents (mothers) in the industrial and trade sectors makes them give their babies MPASI using factory-made, fast food ingredients. Given these conditions, health workers always strive to address the problem of providing MPASI to infants/toddlers. Various efforts have been made to solve the problem of MPASI provision, but they have not found the right solution to target the nutritional status and MPASI issues appropriately. Eventually, subdistrict apparatuses raised the issue of toddler nutrition problems in Dukuh Menanggal Subdistrict to the Surabaya City Government. Then, the issues of undernutrition and stunting were addressed by the Surabaya City Government in collaboration with the Puskesmas, forming the Smart Posyandu. Consequently, the Nutrition Study Program of the Faculty of Psychology and Health saw this opportunity to help solve toddler nutrition problems by focusing on the diversification of locally-sourced MPASI in Dukuh Menanggal Subdistrict. These activities included providing education and training to Surabaya Hebat Cadres (KSH) in Dukuh Menanggal Subdistrict, where KSH serves as the spearhead for providing health education related to locally-sourced MPASI to the community, especially to mothers of toddlers.

The utilization of the Community Based Research (CBR) model as the grand design of community service programs in Dukuh Menanggal Subdistrict is considered effective because the model is very comprehensive in its process. CBR functions as a strategic planning tool for the diversification of locally-sourced complementary feeding (MPASI) programs based on community participation and capacity building, in this case, strengthening the function of Posyandu cadres in Dukuh Menanggal Subdistrict. Additionally, CBR also functions as an assessment tool based on the priority needs and health problems of the Dukuh Menanggal

Subdistrict community related to the diversification of MPASI sourced from local ingredients, and involves all community elements, especially the active role of Posyandu cadres in addressing and solving the problem of undernutrition that arises within the community itself. Unlike some previous community service activities that only focused on improving the individual capabilities of cadre members, or in other words, emphasized personal empowerment over organizational functions.¹³ The *Community Based Research* (CBR) model, as the basic framework for community service in Dukuh Menanggal Subdistrict, is a comprehensive process that not only aims to enhance the knowledge and attitudes of *Posyandu* cadres individually, but also as an effort to strengthen the function of *Posyandu* cadres in terms of health promotion and education (MPASI), internalized as part of the role and responsibility of *Posyandu* cadres within the organizational context.

A workshop is a period of discussion and practical work on a specific subject, where a group of people share their knowledge and experiences. In terms of learning methods, workshops use interactive learning methods and actively involve participants. Workshop participants are invited to discuss or engage in practice.¹⁴ Through this workshop model, it is hoped that mothers of toddlers in Dukuh Menanggal Subdistrict, as the target audience, will not feel compelled to receive important information related to the preparation of locally-sourced complementary feeding (MPASI) from the counselors. Conversely, the counseling team, which is the Dukuh Menanggal Subdistrict Health Cadres Team, will have more freedom in delivering information about locally-sourced MPASI to the target group, which is none other than mothers of toddlers.

Moreover, the education and health promotion process itself runs more dynamically in a two-way manner, because the health counselors and the target groups are both very open in discussions and Q&A sessions. This aligns with the research by Sukandar (2019) titled "The Relationship Between Characteristics and the Level of Activity of Posyandu Cadres in Soreang District, Bandung Regency," which found that most of the cadres are over 40 years old, have secondary education, and have been cadres for more than 10 years.¹⁵ Likewise, the research by Fretty (2020) shows that the majority of cadre characteristics have secondary

¹³ Nikmatul Ikhrom Eka Jayani et al., "Empowerment of Medicinal Plant Gardens and Training on Herbal Tea Making Based on Medicinal Plants in Wage Permai-Sidoarjo," *Engagement: Jurnal Pengabdian Kepada Masyarakat* 7, no. 1 (2023): 211–25, <https://doi.org/10.29062/engagement.v7i1.1337>.

¹⁴ Dede Nurdiawati, Achmad Syauqi, and Sri Rejeki Pramudyawardhani, "The Community Service Program for Beginners to Improve the English Language Skills of Karang Taruna Youth through a Short Course in Dukuh Jetak Sindangwangi Brebes Central Java" 8, no. 1 (2024): 37–50.

¹⁵ Sukandar, "Hubungan Karakteristik Terhadap Tingkat Aktivitas Kader Posyandu Kecamatan Soreang Kabupaten Bandung," *Jurnal Sistem Kesehatan* 4, no. 3 (2019).

education¹⁶. Meanwhile, according to the research by Raiz (2022) titled "The Relationship Between Characteristics of Cadres and the Role of Posyandu Cadres in Preventing Stunting in the Working Area of Puskesmas Wapunto, Muna Regency," the results are almost the same, showing that the average educational characteristics of cadres are at the secondary level and that they have been cadres for more than a year.¹⁷ In the health cadre book, it is stated that cadres should be role models for all community members. Cadres assist officers in data collection, counseling, and skill demonstrations to enhance community participation; therefore, it requires someone with adequate education and experience in the community.¹⁸ In addition, cadres also become one of the managers and determinants of the success of Posyandu.^{19,20}

In this service process, of course there will be people who give a positive response to the issuance of this assistance. However, there are also a few people who give a negative response because this empowerment activity is felt to add to the burden of work as a cadre and takes a lot of time. However, through cooperation and collaboration with village officials, health centers and the community, this service activity went well and was successful.

This activity resulted in an increase in the knowledge and attitudes of cadres about the diversification of locally-sourced complementary feeding (MPASI). The majority of knowledge was good at the pretest, which was 60%, and the majority of knowledge was good at the posttest, which became 92.7%. Meanwhile, positive attitudes at the pretest were 62% and the majority of positive attitudes at the posttest became 95%. This is in line with the research by Kurniawati (2017) titled "Effectiveness of Supplementary Feeding with the Four-Star Concept on Weight Gain of Malnourished Toddlers at Posyandu in the Working Area of Puskesmas Ngawen, Klaten Regency," which found that feeding toddlers and children with the four-star concept (PMBA) can improve the nutritional status of toddlers. In this research, the diversification of MPASI was carried out by cadres, starting from food processing to reeducating mothers of toddlers. The empowerment activities for cadres about the diversification of locally-sourced MPASI can increase the knowledge of cadres, so they can provide health education to mothers of toddlers according to the locally-sourced MPASI during Smart Posyandu activities.

¹⁶ Fretty, "Hubungan Lama Kerja Menjadi Kader, Sikap Dan Pengetahuan Dengan Kinerja Kader Posyandu Di Kota Palembang," *Jurnal 'Aisyiyah Med* 5, no. 2 (2020): 67-81.

¹⁷ Raiz, "Hubungan Karakteristik Kader Dengan Peran Kader Posyandu Dalam Pencegahan Stunting Di Wilayah Kerja Puskesmas Wapunto Kabupaten Muna," [Http://Repository.Poltekkes Kdi.Ac.Id/3306/1/SKRIPSI_RIDHA%20SWASTIKA%20RAIS_P00313021.054.Pdf](http://Repository.Poltekkes Kdi.Ac.Id/3306/1/SKRIPSI_RIDHA%20SWASTIKA%20RAIS_P00313021.054.Pdf), 2022.

¹⁸ Kemenkes RI, *Pedoman Kader Seri Kesehatan Anak* (Jakarta, 2010).

¹⁹ Kemenkes RI, *Ayo Ke Posyandu Setiap Bulan* (Jakarta: Pusat Promosi Kesehatan, 2020).

²⁰ M Ridwan, Salsabila Nur Afifah, and Universitas Pendidikan Indonesia, "Posyandu Cadres Prevent Stunting by Providing MPASI in Cibarengkok Village," *Journal of Community Services* 2, no. 1 (2024): 151-60.

Conclusion

The implementation of community service activities related to stunting and toddler nutrition issues in Dukuh Menanggal Subdistrict, Gayungan District, Surabaya City, employing the *Community Based Research* (CBR) model, has been quite effective in both its process and output. Workshops as a learning model that focuses on cadre groups and mothers of toddlers also play a significant role in increasing the knowledge and positive attitudes of mothers of toddlers regarding toddler nutrition issues in Dukuh Menanggal Subdistrict, Surabaya City. The best form of internalizing the roles and functions of cadres related to locally-based complementary feeding (MPASI) is through workshop activities and the integration of Smart Posyandu under the supervision of the Puskesmas. Thus, efforts to improve nutrition and child development issues cannot be viewed only from a health perspective, but must also be understood from social, cultural, religious, psychological, technological, and community perspectives. The sustainability of community service results related to toddler nutrition issues in Dukuh Menanggal Subdistrict can be maintained through the role of health academics, balanced by the continuous active participation of the target groups (cadres) and other community elements.

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