

Empowering Health Cadres to Prevent Wasting and Stunting through EMO-DEMO-Based Training in Complementary Feeding Practices

Gita Kostania^{a)}, Ratih Kusuma Wardhani, Asworoningrum Yulindahwati

Midwifery Study Program, Health Polytechnic of the Ministry of Health, Malang, Indonesia

^{a)}Corresponding author: gita.kostania@poltekkes-malang.ac.id

ABSTRACT

Wasting and stunting remain major public health problems in Indonesia, contributing to increased morbidity and impaired child development. Based on the Indonesian Nutrition Status Survey (SSGI), the prevalence of wasting was 7.7%, while stunting reached 21.6% in 2022, exceeding the World Health Organization (WHO) threshold of 20%. At the local level, Petungsewu Village, Dau District, Malang Regency, also faces similar challenges, with wasting and stunting prevalence of 2.7% and 8.3%, respectively. One of the key contributing factors to these nutritional problems is inappropriate complementary feeding practices. Therefore, efforts to prevent wasting and stunting require improving knowledge and skills related to complementary feeding. This community service program aimed to empower health cadres through EMO-DEMO-based training on complementary feeding practices. The program involved training sessions, mentoring, monitoring, and evaluation, targeting 30 health cadres and relevant stakeholders. The results showed a significant improvement in cadres' knowledge, motivation, and behavior after the training. This program demonstrates that EMO-DEMO-based training is an effective approach to enhancing the capacity of health cadres and strengthening community-based efforts to prevent wasting and stunting.

ARTICLE INFO

Article History:

Submitted/Received: 3 February 2026

First Revised: 27 February 2026

Accepted: 20 April, 2026

First Available online: 30 April 2026

Publication Date: 30 April 2026

Keyword :

Wasting

Stunting

EMO-DEMO

Health Volunteers

Community Empowerment

INTRODUCTION

Undernutrition, particularly wasting and stunting, remains a major global public health challenge. Stunting, defined as impaired linear growth due to chronic malnutrition, reflects long-term nutritional deprivation that affects both physical growth and cognitive development. Prolonged wasting has been shown to increase the risk of stunting by up to threefold. According to the Indonesian Nutrition Status Survey (SSGI), the prevalence of wasting in Indonesia was 7.7%, while stunting reached 21.6% in 2022. (Ministry of Health of the Republic of Indonesia, 2022). This prevalence exceeds the threshold established by the World Health Organization (WHO), which defines a stunting prevalence above 20% as a public health concern (World Health Organization, 2018)

At the local level, Petungsewu Village, Dau District, Malang Regency, also faces nutritional challenges, with wasting and stunting prevalence rates of 2.7% and 8.3%, respectively (Malang Regency Government, 2020). Considering the long-term consequences of early childhood malnutrition on human capital development and productivity, these conditions require sustained and comprehensive intervention (Ministry of Health of the Republic of Indonesia, 2022).

Nutritional problems in infants and toddlers are influenced by both internal and external factors. Internal factors include infectious and chronic diseases that directly affect nutritional status. External factors involve parental knowledge, feeding practices, maternal education, household income, employment status, and family support systems. These determinants are closely related to achieving the government's target of reducing stunting prevalence to 14% (Rokom, Ministry of Health of the Republic of Indonesia, 2023). Previous studies have shown that nutrition education delivered through maternal classes significantly improves mothers' knowledge regarding complementary feeding. However, improved knowledge does not always translate into appropriate feeding practices (Kostania & Rahayu, 2018). The study emphasized that complementary feeding behavior is also shaped by socioeconomic and environmental factors (Mariani et al., 2016).

Preventive efforts include providing appropriate, nutritious, and balanced complementary feeding. The government promotes supplementary feeding programs that prioritize locally available food ingredients to ensure sustainability and dietary continuity beyond the age of two years. Local complementary foods can be prepared using available resources and adjusted in texture and nutritional composition according to the child's developmental stage (Mariani et al., 2016; Rokom, Ministry of Health of the Republic of Indonesia, 2023).

Yulianti et al. (2024) reported that strengthening the capacity of health cadres significantly improved community knowledge regarding stunting prevention and appropriate complementary feeding practices in the working area of Public Health Center (*Puskesmas*) Alusi (Chabibah et al., 2023). Similarly, Rahmawati et al. (2024) demonstrated that practical training in complementary feeding processing enhanced cadres' technical skills in preparing nutritious complementary foods, thereby supporting efforts to prevent stunting and wasting. Furthermore, Chabibah et al. (2023) highlighted the importance of cadre-based education and communication strategies, including the use of digital media platforms, to improve mothers' knowledge and participation in stunting prevention programs.

Nevertheless, improving complementary feeding practices cannot rely solely on parental education. Strengthening community-based approaches through health cadres empowerment is essential. Health cadres function as community volunteers who bridge health services and local communities. Evidence from community service programs indicates that empowering cadres enhances maternal knowledge and feeding practices. Another study reported that cadre empowerment programs focusing on stunting

prevention and complementary feeding education improved mothers' understanding and awareness of appropriate complementary feeding practices. Practical training in complementary food preparation has been shown to improve Community Health Post (*Posyandu*) cadres' skills in processing nutritious local complementary feeding, thereby strengthening community-level prevention efforts (Dwihestie et al., 2025). In addition, cadre-based educational interventions have been found to effectively increase community participation and awareness in stunting prevention programs (Mona Yulianti, 2024)

These findings are consistent with (Mediani et al., 2020), who emphasized that continuous assistance and mentoring enhance cadres' knowledge, motivation, and performance in delivering optimal Integrated *Posyandu* services. Therefore, cadre empowerment represents a strategic and sustainable approach to preventing nutritional problems at the community level.

Petungsewu Village, with a population of 3,336 and approximately 50 active health cadres, has substantial potential to strengthen community-based nutrition interventions. Health cadres, as community-based human resources, support health professionals in promoting healthy behaviors and identifying local health needs (Ministry of Health of the Republic of Indonesia, 2018).

Efforts to empower health cadres can be implemented through structured training activities on complementary feeding, particularly targeting mothers of infants aged 6–12 months. To ensure effectiveness, training should incorporate behavior change communication strategies in addition to knowledge transfer. One innovative approach is the EMO-DEMO (Emotional Demonstration) method, which has been shown to improve maternal feeding behaviors (Global Alliance for Improved Nutrition, 2017). By integrating cadre empowerment with the EMO-DEMO approach, community involvement in improving child nutritional status can be strengthened through direct guidance and monitoring by *Puskesmas* nutrition officers and village midwives.

Based on this situational analysis, implementing community service activities in Petungsewu Village is necessary to address wasting and stunting by strengthening the active role of health cadres. Therefore, a community service program entitled “Empowering Health Cadres as a Preventive Measure against Wasting and Stunting through complementary feeding Training Using the EMO-DEMO Method in Petungsewu Village, Dau District, Malang Regency” is proposed. This program aims to implement a partner village development initiative by empowering health cadres to prevent wasting and stunting through structured complementary feeding training using the EMO-DEMO method.

METHOD

This community service program was designed using a community empowerment approach focusing on strengthening the capacity of health cadres in complementary feeding practices, in Petungsewu Village, Dau Sub-district, Malang Regency. The empowerment strategy focused on training cadres in complementary feeding practices and assisting mothers of infants and toddlers. Training activities were conducted using discussions, question-and-answer sessions, simulations, and practical methods. The program was implemented offline using the EMO-DEMO (Emotional Demonstration) approach.

The activities included training health cadres on standardized complementary feeding preparation and its nutritional content, as well as appropriate complementary feeding practices according to children's developmental stages. In addition, cadres were trained in the management of Integrated Community Health Posts (*Posyandu*) and were assisted in educating mothers of infants and toddlers about proper complementary feeding practices. The program also involved continuous monitoring and

evaluation of its implementation, along with the establishment of a community of “empowered cadres” dedicated to preventing wasting and stunting.

Supporting activities were conducted both directly and indirectly through the use of information technology. The primary target of this program was 30 active health cadres who received continuous assistance throughout the implementation period. Additional stakeholders included the coordinating midwife of the supervising community health center, the nutrition officer of the supervising community health center, the regional midwife, the head of the Petungsewu Village Family Welfare Movement (*PKK*), and village officials overseeing the program, totaling eight individuals. In total, 38 participants were involved in the program. The program was implemented in Petungsewu Village, Dau Sub-district, Malang Regency, from April to October 2025.

A descriptive evaluation design was used to obtain an overview of input components related to the knowledge and skills of health cadres regarding standardized complementary feeding. Additional evaluations focused on the implementation of cadre assistance and educational activities for the target group. Evaluation was conducted through monitoring using direct observation and self-assessment. Data collection methods included document reviews of pre-test and post-test results conducted during each training session. Checklists were used to monitor program implementation, and structured questionnaires were used for self-assessment.

RESULTS AND DISCUSSION

The community service activities were conducted in Petungsewu Village, Dau Sub-district, Malang Regency. The program provided educational interventions in the form of training for health cadres, who serve as key extensions of village midwives and the Dau Community Health Center. The details of the activities are as follows:

Preparation Stage

The service team conducted administrative licensing and coordination meetings with relevant stakeholders. Preparations included developing training materials, preparing questionnaires to be distributed to health cadres, and conducting socialization regarding the implementation of the community service program.

Implementation Stage

The community service activities were conducted offline using the EMO-DEMO (Emotional Demonstration) method. A total of 38 participants attended the program, consisting of 30 active health cadres and eight stakeholders, including the coordinating midwife of the supervising community health center, the nutrition officer of the supervising community health center, regional midwives, the head of the Petungsewu Village Family Welfare Movement (*PKK*), and village officials overseeing the program.

The training implementation was conducted as follows:

July 12, 2025 – Participants completed a pre-test questionnaire to assess baseline knowledge. Educational materials were then delivered, covering the Health Education Program on complementary feeding at the *Posyandu* and an introduction to EMO-DEMO Theme II (complementary feeding). The topics included appropriate portion sizes for infants and young children, complementary feeding texture according to age, and digestive health considerations.

July 19, 2025 – Practical training sessions were conducted to apply the EMO-DEMO method. Health cadres were divided into three groups based on the assigned topics.

July 25 and July 31, 2025 – Each group practiced delivering the assigned EMO-DEMO topics. Performance evaluations were conducted by the service team and facilitators using structured assessment criteria.



FIGURE 1. EMO-DEMO Training Participants



FIGURE 2. EMO-DEMO Practice during Training



FIGURE 3. Assistance in the Implementation of EMO-DEMO at *Posyandu*

Evaluation stages

In the implementation of the Partner Village Development Program (*PPDM*) activities, implementing partners play an active role in every stage of activities, ranging from planning, implementation, to

evaluation. Implementing partners, namely the Village Government and Village Health Cadres, contribute to providing initial data on village conditions, identifying priority problems related to maternal and child health, and determining the right program targets. In addition, partners play a role in facilitating coordination with the community, preparing activity locations, and helping to mobilize participants for training and mentoring.

During the activity, health cadres also assisted in the standardized complementary feeding education training process using EMO-DEMO, managed *Posyandu* activities, and participated in monitoring and program evaluation assistance. Partners also play a role in maintaining the sustainability of the program by forming cadre communities and carrying out offline meeting activities regularly. Overall, the contribution of implementing partners greatly helps the smooth implementation of the program, ensures community involvement, and strengthens the sustainability of activities at the village level. Results of complementary feeding Training Activities with the EMO-DEMO Method.

Characteristics of Participants (Cadres)

TABLE 1. Characteristics of Trainees

No.	Characteristics	Quantity (n)	Percentage (%)
1	Age (Years)		
	<19	0	0
	19-59	29	96
	>59	1	4
		30	100
2	Length of Time as a Cadre (Years)		
	<5	10	33.3
	6-10	6	20
	>10	14	46,7
		30	100.00
3	Education		
	SD	15	50
	Junior High School	10	33.3
	High School	4	13.3
	Diploma	0	0.00
	Bachelor	1	3.4
		30	100.00

The data indicate that the majority of participants were aged 19–59 years (96%) and had more than 10 years of experience as health cadres (46.7%).

Pre-Test and Post-Test Assessment of Cadre Training**TABLE 2.** Knowledge Assessment Before and After Training

Categories	Pretest		Posttest	
	n	%	n	%
Excellent (86-100%)	26	86.67	29	96.97
Good (76-85%)	4	13.33	1	3.33
Adequate (60-75%)	0	0.00	0	0
Less (50-59%)	0	0.00	0	0
Very Less (<50%)	0	0.00	0	0
Quantity	30	100.00	30	100.00
Value Description	Max	90	Max	100
	Min	70	Min	80
	Average	86.87	Average	97.67

The knowledge assessment before the training showed that the majority in the assessment category was very good (86.87%), while after participating in the training the majority of the category was very good (97.67%).

TABLE 3. Assessment of Health Cadre Motivation Before and After Training

Categories	Pretest		Posttest	
	n	%	n	%
Excellent (80-100%)	22	73.3	30	100
Good (70% - 79%)	8	26.7	0	0
Adequate (60% - 69%)	0	0	0	0
Less (< 60%)	0	0	0	0
Quantity	30	100.00	30	100.00

The motivation assessment before the training showed that the majority in the assessment category was very good (73.3%), while after the training the majority of the category was very good (100%).

TABLE 4. Behavioral Assessment of Health Cadres Before and After Training

Categories	Pretest		Posttest	
	n	%	n	%
Excellent (91-100%)	4	13.3	19	63.33
Good (76-90%)	21	70	11	36.67
Adequate (61-75%)	3	10	0	0
Less (<60%)	2	6.7	0	0
Quantity	30	100.00	30	100.00

Based on the table, it is known that the majority of cadres' behavior after participating in complementary feeding training is in the very good category (63.33%).

DISCUSSION

The EMO-DEMO method is based on the theory that decision-making is influenced not only by rational thinking but also by emotional responses such as feelings, imagination, and fear (emotional aspects) (Global Alliance for Improved Nutrition, 2017). In community service activities, this method is used to change behaviour based on the knowledge possessed by health cadres in providing complementary feeding that is in accordance with standards by demonstrating its impact visually and touching emotions, so that there is a sense of both positive and negative that encourages change (Ministry of Health of the Republic of Indonesia, 2019)

The stages in the application of the Emo-Demo method are as follows: 1) Preparation, identification of behavioral problems in the community and preparation of simple props (balls, flour, colored water, etc.); 2) Triggering, the Facilitator conducts a demonstration that surprises or touches emotions (e.g., simulation of germs with flour); 3) Reflection, Participants are invited to discuss what they see and feel during the demonstration; 4) Commitment, the Participant makes a promise or joint commitment to change such behavior at home.

The results of community service showed that Emo-Demo was more effective in improving exclusive breastfeeding practices and food diversity in toddlers compared to ordinary lectures (Entoh, 2020). This is because the message conveyed through emotional experiences is more memorable in the long term by pregnant women or mothers of toddlers as the main target (Curtis, 2013).

CONCLUSION

The EMO-DEMO-based training program effectively improved health cadres' knowledge, motivation, and behavior regarding complementary feeding practices. This approach has strong potential as a sustainable community-based strategy for preventing wasting and stunting. The results indicated that 96.97% of participants achieved an adequate level of understanding based on post-training evaluation results. In addition, a 100% attendance rate reflected the program's success in reaching its intended participants.

Although minor technical obstacles were encountered, the activities were conducted smoothly and in an orderly manner, receiving positive feedback from all stakeholders involved. This program emphasized the importance of improving toddler nutrition through preventive strategies by integrating the EMO-DEMO method into *Posyandu* activities. Through this approach, health cadres and mothers of toddlers were equipped with the knowledge and practical skills necessary to prepare standardized and nutritionally appropriate complementary foods.

ACKNOWLEDGMENTS

We sincerely express our gratitude to the Ministry of Health of the Republic of Indonesia for funding this community service program through the Director of Health Polytechnic of the Ministry of Health, Malang (*Poltekkes Kemenkes Malang*). This support has been instrumental in the successful implementation of our activities. We also extend our appreciation to the Head of Petungsewu Village, the village midwife, and the health cadres of Petungsewu Village for their active participation and dedication. Their commitment and collaboration have greatly contributed to the success of this program in improving community health and

nutrition. Lastly, we thank all individuals and stakeholders involved in this initiative. We hope that this program will have a lasting positive impact on the community and serve as a sustainable model for future health interventions.

REFERENCES

- Chabibah, I. F. A., Anggraeny, D., & Irot, R. A. (2023). Optimizing the Role of Posyandu Cadres in Providing Nutrition Education and Stimulation as Prevention and Handling of Stunting. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 6(3), 4086–4092. <https://doi.org/10.35568/abdimas.v6i3.3487>
- Curtis, V. (2013). *Don't look, don't touch, don't eat: The science behind revulsion*. The University of Chicago Press.
- Dwihestie, L. K., HPSN, A., & Fitriana, M. (2025). Education and training on complementary feeding processing skills for Posyandu cadres in Randusari Village. *ABDIMAS: Jurnal Pengabdian Kepada Masyarakat*, 8(1). <https://journal.umtas.ac.id/index.php/ABDIMAS/article/view/5842>
- Global Alliance for Improved Nutrition, G. (2017). *Emotional Demonstrations (Emo-Demos): A Guide for Facilitators*. Gain Indonesia.
- Kostania, G., & Rahayu, R. D. (2018). The effectiveness of the implementation of the class of mothers under five on the knowledge and behavior of mothers about COMPLEMENTARY FEEDING aged 6-12 months. *Scientific Journal of Midwife*, 3(3), 11–19.
- Mariani, N. N., Nurhidayah, I., & Lukman, M. (2016). Factors related to the provision of early complementary feeding in the work area of the UPTD Sindanglout Health Center, Lemahabang District, Cirebon Regency. *Journal of Health*, 3(3), 420–426.
- Mediani, H. S., Lukman, M., & Nurhidayah, I. (2020).). Empowerment of health cadres on stunting prevention in toddlers. *Media Karya Kesehatan*, 3(1).
- Ministry of Health of the Republic of Indonesia. (2018). *Training MODULE for Health Cadre Trainers*. BPPSDM RI.
- Ministry of Health of the Republic of Indonesia. (2019). *Guidelines for Communication Strategies for Behavior Change in Stunting Prevention*. Directorate of Health Promotion and Community Empowerment.
- Ministry of Health of the Republic of Indonesia. (2022). *Pocket Book of the Results of the 2022 Indonesian Nutrition Status Survey (SSGI)*. <https://kesmas.kemkes.go.id/assets/uploads/contents/attachments/09fb5b8ccfd088080f2521ff0b4374f.pdf>
- Mona Yulianti. (2024). Increasing Community Knowledge About Preventing Stunting and Making Additional Food in Cikurubuk Village, Buahdua District 2024. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 7(3), 1146–1152. <https://doi.org/10.35568/abdimas.v7i3.4706>
- Rokom, Ministry of Health of the Republic of Indonesia. (2023). Stunting Prevalence in Indonesia Drops to 21.6% from 24.4%. <https://sehatnegeriku.kemkes.go.id/baca/rilis-media/20230125/3142280/prevalensi-stunting-di-indonesia-turun-ke-216-dari-244/>
- World Health Organization. (2018). Prevalence thresholds and corresponding labels for stunting, overweight and wasting in children under 5 years. <https://iris.who.int/bitstream/handle/10665/331097/WHO-NMH-NHD-19.20-eng.pdf?>