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Klepon Si Centing: Training of breastfeeding counsellor cadres to prevent stunting in Cimahi City

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ABSTRACT

Stunting is a chronic nutritional problem that is still a public health challenge in Indonesia, including in Cimahi City, which has a stunting prevalence of 9.4%. One of the efforts to prevent stunting is increasing exclusive breastfeeding coverage, which is still below the national target. This community service activity aims to increase the capacity of health cadres in breastfeeding counselling knowledge and skills through intensive community-based training. The program will be carried out in March 2025 in RW 06 Melong Village, the working area of the Central Melong Health Centre, Cimahi City, with eight cadre participants. Evaluation was carried out through pre-test and post-test using a questionnaire consisting of 20 questions that had been tested for validity and reliability, as well as participatory observation of changes in attitudes and skills of cadres. The results showed an increase in the average knowledge score of 33.1 points with a significant paired t-test result ($p = 0.001$). Qualitatively, participants showed increased self-confidence, skills in practising lactation techniques and oxytocin massage, and initiatives to form breastfeeding support groups to sustain education. This program contributes to cadre empowerment and is a potential strategy to support the acceleration of stunting reduction at the community level.

Keywords: Cadres; Community Service; Exclusive Breastfeeding; Nutrition; Stunting.

INTRODUCTION

Stunting is a significant indicator of chronic malnutrition and is a global public health issue. An estimated 148.1 million children under five in the world are stunted (UNICEF et al., 2024), with the highest proportion in South Asia (33.2%) and Sub-Saharan Africa (30.7%). In Indonesia, the prevalence of stunting [1] has decreased from 24.4% in 2019 to 14% in 2024, but this figure is still relatively high. In Cimahi City, based on 2023 e-PPGBM data, 2,890 toddlers (9.4%) were stunted (SSGI, 2024; Febriani, 2024) . Although lower than the national average and below the WHO threshold (<20%), this figure demonstrates the need for sustainable, community-based interventions [2].

Factors that cause stunting include direct determinants such as poor nutritional intake and recurrent infections [3][4] and indirect determinants such as low maternal knowledge, inappropriate parenting, and limited health services. WHO recommends six-month exclusive breastfeeding as the primary stunting prevention strategy [5][6][7]. However, exclusive breastfeeding coverage in Indonesia has still not reached the target of 74.73% nationally and 78.1% in Cimahi City in 2022, below the national target of 80%. The obstacles faced include the lack of knowledge of mothers, the availability of formula milk, working mothers, and the lack of support from family and the surrounding environment [8].

Empowering cadres as breastfeeding counsellors has proven effective in increasing exclusive breastfeeding practices. The breastfeeding support group (KP-ASI) plays a role in improving the motivation and knowledge of breastfeeding mothers and reducing the risk of lactation failure. The training of lactation counsellor cadres also contributes to increasing exclusive breastfeeding coverage in the work area of the Puskesmas. This community-based approach aligns with the WHO's recommendations on the importance of peer support and the involvement of trained volunteers [9]. Although various strategies have been rolled out in the National Program for the Acceleration of Stunting Prevention and sensitive interventions during the First 1000 Days of Life, the involvement of cadres in breastfeeding support groups in the field is still not optimal. Most cadres have not received special breastfeeding counselling training and have not maximised their role in assisting breastfeeding mothers, especially in areas with a middle-to-lower economic background [10].

The "Klepon Si Centing" program (Breastfeeding Support Group to Prevent Stunting) was carried out in RW 06, the working area of the Melong Tengah Health Centre, Cimahi City. This activity aims to empower health cadres through community-based breastfeeding counselling training. The specific objectives of the activity include: (1) improving the knowledge and skills of cadres in breastfeeding techniques, oxytocin massage, and breast milk counseling; (2) forming a breastfeeding support group as a medium for continuous education and advocacy; and (3) evaluate the impact of training on changes in knowledge and attitudes of cadres through pre-post tests and observations. This program is a downstream of previous research and is designed as a replication model to accelerate stunting reduction at the community level.

METHODS

This community service activity was carried out on March 15-16, 2025, at RW 06 Melong Village, South Cimahi District, Cimahi City, the working area of the Central Melong Health Centre. The target of the activity is eight health cadres recommended by the health centre to participate in breastfeeding counselling training as part of stunting prevention efforts. The facilitators came from the service team of the Midwifery

Professional Study Program of the Rajawali Health Institute, who have expertise in lactation and maternal-child nutrition. The activity was carried out in three main stages: preparation stage (1 week), implementation (2 days), and evaluation (1 week).

Preparation Stage

This stage includes coordination with the health centre, participant screening, survey of activity locations, and preparation of training materials. The material prepared consists of the anatomy and physiology of lactation, the benefits of exclusive breastfeeding, correct breastfeeding techniques, oxytocin massage, the basics of breastfeeding counselling, and the introduction of stunting and how to prevent it. All materials are packaged in training modules and Counselling Event Units (SAP) that are tailored to the characteristics of the participants so that they are easy to understand and apply.

Implementation Stage

The first day begins with participants filling out a pre-test to determine their initial level of knowledge. Furthermore, interactive lecture sessions, group discussions, and question-and-answer sessions were held. The second day was focused on practising breastfeeding techniques and oxytocin massage with breast phantom aids and mannequins, as well as direct assistance from the facilitator.

The evaluation instrument was a multiple-choice questionnaire, totalling 20 questions arranged based on training achievement indicators. This questionnaire has been tested for validity and reliability before use. The validity test results showed that all items had a value of r calculated > r of the table (0.444) with a significance of $p < 0.05$, so it was declared valid. Reliability tests using Alpha Cronbach yielded a value of 0.871, indicating the instrument has high reliability.

Evaluation Stage

Evaluation was carried out quantitatively and qualitatively.

Quantitative analysis was carried out on the data of pre-test and post-test results to assess the increase in cadre knowledge. Before the paired t-test, the difference between pre- and post-test scores was first tested for normality using the Shapiro-Wilk test. The test results showed that the data was normally distributed ($p > 0.05$), so it could be analysed using the paired t-test with a significance level of $p < 0.05$ to determine a meaningful difference.

Qualitative analysis was carried out through participatory observation during discussion and practice sessions. The aspects observed included participants' activeness, ability to ask questions, skills in breastfeeding techniques, and changes in attitude and confidence. In addition, verbal feedback from cadres was collected at the end of the activity to gain insights related to their experiences during the training.

Indicators of the success of the activity include a significant increase in post-test scores compared to pre-tests, the active involvement of cadres during training, and the formation of a breastfeeding support group, "Klepon Si Centing", as an effort to sustain breastfeeding education in the RW 06 environment.

RESULT

Cadre training activities in the *"Klepon Si Centing" program (Breastfeeding Support Group to Prevent Stunting)* were successfully carried out on March 15-16, 2025, at RW 06 Melong Village, South Cimahi District, Cimahi City. This activity aims to increase the capacity of health cadres to provide breastfeeding education and counselling to prevent community-based stunting. Evaluation of activities is carried out quantitatively and qualitatively through pre-test, post-test, participatory observation, and documentation. Cadre knowledge was evaluated using a multiple-choice questionnaire of

20 questions that had been tested for validity and reliability. This instrument is used to measure knowledge before and after training. The results show a consistent and statistically significant improvement.

Table 1. Pre-test and Post-test Scores of Cadre Knowledge

Yes	Cadre Name	Pre-test score	Post-test score
1	Box A	65	95
2	Box B	55	95
3	Box C	80	100
4	Box D	65	95
5	Box E	50	85
6	Box F	60	100
7	Box G	50	95
8	Box H	75	100
	Average	**62,5**	**95,6**

A paired t-test was performed to test the significance of the increase. Previously, the Shapiro-Wilk normality test was conducted on the difference in pre-post test scores, and the results showed normal distribution data ($p > 0.05$), so *the paired t-test* was feasible.

Table 2. Results of the paired t-test on the cadre knowledge score before and after training

Measurement Time	N	Mean	SD	ONE	*p-Value*
Pre-test	8	62,50	10,60	3,75	
Post-test	8	95,63	5,00	1,77	**0,001**

The test results showed a *p-value* of 0.001 ($p < 0.05$), meaning that the cadre knowledge score increase was statistically significant. The average growth of 33.1 points reflects the effectiveness of training in a short period of time. Visualisations of pre-test and post-test results are shown in the following graph.

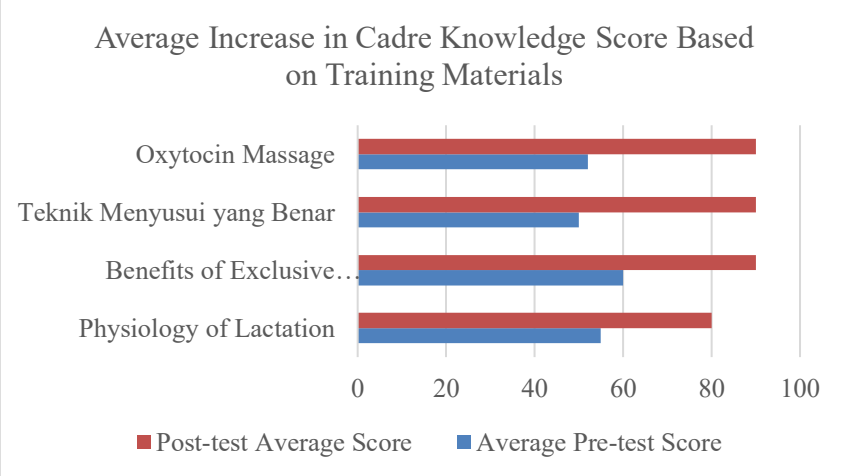

Figure 1. Average Chart of Pre-test and Post-test Scores of Cadres

Source: Primary data of the "Klepon Si Centing" training, 2025. Remarks: There was an increase in the average score of 33.1 points after the training

Results of Participatory Observation and Changes in Cadre Attitudes

In addition to the cognitive aspect, this activity also evaluates changes in attitudes and skills of cadres qualitatively. The facilitator carries out participatory observation during discussion sessions and hands-on practice. All participants showed active

participation, increased confidence, and the ability to demonstrate lactation and oxytocin massage techniques. Some cadres who were initially passive, such as Cadre E and Cadre G, began to actively ask questions, share personal experiences, and engage in counselling simulations. Positive verbal responses and open body language (eye contact, smile, firm voice) indicate increased affective and psychomotor aspects. Observations also noted that cadres could adapt the material to the local context. They began discussing strategies to assist breastfeeding mothers working or facing pressure from families related to formula feeding. Cadres also conveyed the need to share experiences regularly to keep their spirits up and learn from each other in the community.

Activity Documentation

The training was conducted in a participatory and conducive atmosphere, supported by assistive devices such as breast phantoms, baby mannequins, and training modules. This activity is the first experience most cadres have of participating in formal breastfeeding counselling training.

Figure 2. Documentation of Cadre Training "Klepon Si Centing"
A combination of material delivery sessions and breastfeeding technique practice using teaching aids.

DISCUSSION

Theoretical and scientific discussion. The results of the training show that the process of increasing the capacity of cadres not only depends on the delivery of materials but also on a learning environment that allows observation, active participation, and self-confidence building. Based on Social Cognitive Theory [11], the success of a training is highly determined by the interaction between personal factors (knowledge and attitudes), a supportive social environment, and the learning process through observation or modelling. In this context, the existence of facilitators as role models, group dynamics, and direct practices carried out by cadres plays an essential role in forming self-efficacy, namely, cadres' belief that they can carry out their role as breastfeeding counsellors independently and confidently in society [12].

The results of the “Klepon Si Centing” cadre training program underscore the critical role of participatory learning environments in enhancing the capacity of health workers, particularly in maternal and child health promotion. The training showed that the delivery of content did not solely influence the improvement in cadres’ competencies but was significantly shaped by interactive learning, hands-on practice, and nurturing self-confidence. This aligns with Bandura’s Social Cognitive Theory, which highlights the importance of the dynamic interaction between personal factors (knowledge, beliefs, and attitudes), the learning environment, and observational learning (modelling). In this case, skilled facilitators, supportive group dynamics, and guided practices played a central

role in building self-efficacy, the belief among cadres that they can perform their roles effectively and independently within their communities [13].

The experiential learning approach, which included direct engagement through simulations and demonstrations using models, contributed to developing psychomotor skills and cognitive knowledge. Participants who were initially hesitant, such as Cadre E and Cadre G, showed remarkable progress in confidence, verbal expression, and technical performance, indicating that supportive peer interactions and facilitator mentoring were pivotal in their behavioural transformation [14]. This validates the significance of contextually adaptive training methods that combine didactic teaching with peer-led reinforcement, particularly for adult learners from diverse educational backgrounds [15].

Comparison with previous studies. This activity's results align with previous studies that show the effectiveness of cadre training in improving knowledge and skills. A report of increased knowledge after training stunting companion cadres found that community-based training strengthened breastfeeding education networks at the local level [16]. The increase in scores in this activity (33.1 points) was higher than the average increase in the study, which was 20 points, indicating that a short but structured training model can produce a meaningful impact in a limited time. The findings of this initiative are consistent with previous studies on the effectiveness of cadre-based health promotion programs. Observed improved knowledge retention among stunting companion cadres following training interventions. Demonstrated that community-based breastfeeding counselling training can effectively strengthen health education networks at the grassroots level [17]. Notably, the 33.1-point improvement in knowledge scores recorded in the “Klepon Si Centing” program exceeds the 20-point average reported, indicating the effectiveness of short, structured, and focused training programs [18].

This contrast suggests that training models emphasising direct engagement, contextual understanding, and emotional reinforcement can achieve meaningful outcomes within limited timeframes. Furthermore, integrating interactive methods such as Q&A sessions, case studies, and simulation-based practice sessions significantly contributed to assimilating and retaining new skills. The documented increase in cognitive (knowledge) and affective (attitude and confidence) domains confirms that holistic training strategies yield more sustainable impacts than traditional lecture-only methods.

Constraints and development. Several technical obstacles were encountered during the implementation, including time constraints, variations in cadre backgrounds, and limited practical aids. However, these challenges can be overcome with a facilitative approach and full support from the health centre [19]. The success of this activity opens up opportunities for further development, such as periodic refresher training, replication of programs in other regions, and strengthening the "Klepon Si Centing" group as a sustainable education forum that broadly covers maternal and child nutrition issues.

Despite its success, the program encountered several technical challenges. These included time constraints due to the short training duration, variability in the educational backgrounds of participants, and limited availability of training equipment. However, these challenges were mitigated through a facilitative approach emphasising flexibility, empathy, and continuous feedback. The presence of committed facilitators and active support from the local health centre was instrumental in maintaining the quality and momentum of the training. These experiences point to several future opportunities for program development. First, implementing periodic refresher courses would help maintain and expand the cadres’ skill sets. Second, the success of the RW 06 initiative

supports the potential replication of the “Klepon Si Centing” model in other urban and rural communities. Third, the formalisation of breastfeeding support groups initiated by cadres opens pathways for establishing sustainable education platforms that address broader maternal and child nutrition topics, including complementary feeding and maternal care practices.

CONCLUSIONS

The "Klepon Si Centing" program, designed as a community-based breastfeeding counsellor training initiative, has significantly enhanced the knowledge, attitudes, and practical skills of health cadres in Cimahi City. The structured yet concise training model, which incorporated interactive lectures, simulations, and participatory observation, was highly effective in increasing the average cadre knowledge score by 33.1 points, a statistically significant improvement. This outcome affirms the effectiveness of short-duration training when accompanied by participatory and contextualised learning strategies. Beyond cognitive improvement, the program also fostered affective and psychomotor development. Cadres gained self-confidence, demonstrated competence in lactation techniques and oxytocin massage, and expressed strong motivation to form peer support groups. These groups are sustainable platforms for continued breastfeeding education and advocacy within their communities. Social learning principles, particularly modelling and peer engagement, were instrumental in reinforcing these changes. Therefore, this program can be a replicable model for other regions seeking to implement grassroots, promotive-preventive maternal and child health strategies. Health centres, local governments, and academic institutions are encouraged to adopt and scale similar initiatives, integrating them into broader public health and community service frameworks to accelerate national stunting reduction targets..

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