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https://ojs.transpublika.com/index.php/COMORBID
Online ISSN 2809-9745

https://doi.org/10.55047/comorbid.v4i3.1850

Original Article

Community Diagnosis Report on Reducing New Cases of Toddler Malnutrition Through Primary Health Care Interventions

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Received : 19 June - 2025
Accepted : 22 July - 2025
Published online : 26 July - 2025

Abstract

This study aims to reduce the number of new cases of malnutrition in the working area of Kresek Primary Health Center by identifying priority locations, analyzing main causes, formulating short-term solutions, and evaluating the results of interventions that have been implemented. A mini survey was conducted for data collection, followed by community problem analysis using the 'Blum' paradigm, then problem priorities were determined using the Delphi method. The root causes of problems were identified using a fishbone diagram. Based on the Blum paradigm, lifestyle was identified as the main problem. Interventions were carried out in the form of pre-test, post-test, and counseling on nutrition as well as training on food creation and balanced nutrition menu planning. Pre-test results showed <70 scores for 24 (80%) participants. Post-test results ≥70 were obtained by 30 (100%) participants. The activity results were declared successful because >80% of participants obtained scores ≥70. The results obtained from food creation training and balanced nutrition menu planning for toddlers showed that all participants were able to practice properly and correctly. The cause of increased new cases of malnutrition in the working area of Kresek Primary Health Center is lifestyle factors. Counseling is expected to increase knowledge of malnutrition and balanced nutrition in toddlers so that malnutrition cases can be resolved and prevented.

Keywords: Blum Paradigm, Community Diagnosis, Fishbone Diagram, Malnutrition in Toddlers, PDCA Cycle.

1. Introduction

Community diagnosis is a systematic effort used in solving family health problems as the locus for establishing community diagnosis (Alberdi-Erice et al., 2021). Community diagnosis activities explore the main problems faced by the community based on existing facts and decision-making as strategies and follow-up plans in solving health problems (Musfirah & Setyani, 2022). Community diagnosis aims to identify fundamental community problems (Herqutanto, 2014), prioritize problems, and provide problem-solving solutions that are arranged systematically and structurally (Izza & Mulasari, 2023).

Malnutrition is a condition of moderate nutrient deficiency caused by inadequate food consumption over a long period, characterized by the child's nutritional status being at -3SD to <-2SD (Iswati & Rosyida, 2019; Kiprop Choge, 2020). Malnutrition conditions are prone to occur in toddlers aged 2-5 years because toddlers have adopted family eating patterns (Desreza et al., 2022) and begun with high levels of physical activity (Minkhatulmaula et al., 2020; Ufiyah Ramlah, 2021). Malnutrition during toddlerhood is related to brain development so it

can affect children's intelligence and impact the formation of quality human resources in the future (Sophia et al., 2017).

UNICEF epidemiological data shows that the number of people suffering from malnutrition worldwide reached 767.9 million people in 2021. That number increased by 6.4% compared to the previous year of 721.7 million people. By region, the number of malnourished people in Asia was the highest, namely 424.5 million people and 42.8 million people suffered from malnutrition in Southeast Asia. In Indonesia itself, the prevalence of underweight or malnourished toddlers was 17.1% in 2022 or increased by 0.1 points from the previous year (UNICEF, 2022).

According to data from the Central Statistics Agency (BPS), the prevalence of malnutrition in Banten reached 24.5% in 2021, while for Tangerang City itself in 2022, the prevalence of malnutrition was around 11.8%. The prevalence of malnutrition in Tangerang Regency in 2022 was 77.23%. According to Primary Health Center data, the prevalence of malnutrition at Kresek Primary Health Center was 17.31%. A community diagnosis approach needs to be conducted to further analyze the causal factors of malnutrition and interventions that can be implemented to prevent complications and reduce the number of malnutrition cases in toddlers in the working area of Kresek Primary Health Center (Diniyyah & Nindya, 2017; Notoatmodjo et al., 2012).

This study aims to reduce the number of new cases of malnutrition in the working area of Kresek Primary Health Center by identifying priority locations, analyzing main causes, formulating short-term solutions, and evaluating the results of interventions that have been implemented. This study on community diagnosis is important as it deals with malnutrition in toddlers by identifying problems systematically and implementing specific interventions. The study offers evidence-based solutions for local health authorities, encourages community involvement in health enhancement, and enhances the effectiveness of primary healthcare systems. By targeting the high prevalence of malnutrition (17.31%) at Kresek Primary Health Center, this research helps in decreasing long-term developmental issues in children and presents a model that can be replicated in other communities dealing with malnutrition challenges.

2. Methods

This study uses a descriptive approach with community diagnosis methods to identify and address malnutrition health problems in toddlers in the working area of Kresek Primary Health Center, specifically in Patrasana Village (Chriswardhani, 2009). Community diagnosis activities were conducted systematically with stages of data collection, problem identification, problem priority setting, and community-based intervention.

Data was collected through a mini survey distributed to 30 mothers of toddlers receiving the Supplementary Feeding Program (PMT). The survey included aspects of nutritional knowledge, parenting patterns, environmental sanitation, and access to health services. Problem analysis was conducted using the Blum Paradigm, which includes genetic factors, environment, behavior (lifestyle), and health services (medical care) (Blum, 1974). Problem priorities were determined through the Delphi method, which involves group discussions and expert consensus (Galanis, 2018; Sankaran et al., 2023).

To identify the root of problems, a fishbone (Ishikawa) diagram was used to systematically map various causal factors (Hayes, 2019; Singh et al., 2021). Furthermore, interventions were designed using log frame and Planning of Action (PoA) that detailed

objectives, outputs, activities, and success indicators. The intervention implementation stages were carried out through two main activities:

a. Nutrition counseling with pre-test and post-test to measure knowledge improvement
b. Food creation training and balanced nutrition menu planning.

Evaluation was conducted using the PDCA (Plan, Do, Check, Act) approach to monitor and assess intervention success (Asq, 2021; Johnson, 2002). This activity also considered community-oriented principles with the involvement of cadres, families, and communities in every stage (Mihaela S., 2022). Intervention success was determined based on post-test score improvements ≥70 in more than 80% of participants and participants' success in practicing balanced nutrition menu planning.

3. Results and Discussion

3.1. Lifestyle

A mini survey was conducted on 30 respondents of mothers with malnourished children in Patra Sana Village on August 8, 2024, and the following data was obtained:

3.1.1. Respondent Characteristics

Based on respondent characteristic data from 30 married couples with toddlers, the following demographic and socioeconomic profile was obtained. In terms of husband's age, the majority were in the 31-40 years age range (56.6%), followed by the 21-30 years age group (26.9%), and the rest 41-50 years (16.5%). Meanwhile, the majority of wives were also in the 21-30 years group (60%), then 31-40 years (26.5%), and the rest 41-50 years (13.5%).

The husband's education level showed that most only reached high school level (46.7%) and junior high school (40%), while those who pursued higher education were only 6.7%. Similarly, with the wife's education level, most were high school graduates (46.7%) and junior high school (43.3%), only one person (3.3%) pursued higher education, and two people (6.7%) were elementary school graduates. There were no respondents who never attended formal education for both husbands and wives.

From the employment side, husbands mostly worked as laborers (26.7%) and farm laborers (26.7%), followed by farmers (13.3%) and traders (20%). Other types of work were distributed in small proportions such as civil servants/military (6.7%), shop assistants (3.3%), entrepreneurs (6.7%), factory workers (16.7%), and one person each working as online motorcycle taxi drivers, couriers, and home industry workers (3.3% each). Wives' jobs were dominated by their role as housewives (70%), while the rest worked as traders (16.7%), civil servants/military (3.3%), factory workers (6.7%), and shop assistants (3.3%).

In terms of income, most husbands had earnings less than Rp4,000,000 (73.3%), while only 20% earned above that amount, and 6.7% were unemployed. Conversely, most wives did not work (56.7%), 36.7% had earnings less than Rp4,000,000, and only 6.7% had earnings above Rp4,000,000.

From the toddler side, gender was distributed relatively evenly with slight male dominance (53.3%) compared to females (46.7%). The most common toddler ages were the 31-36 months group (37%) and 13-18 months (33.2%), while other age groups such as 7-12 months (16.6%) and 43-48 months (9.9%) showed smaller proportions, and there were no respondents with children aged 1-6 months, 25-30 months, or 37-42 months.

Regarding toddler health history, most had a history of acute respiratory infections (56%), followed by chronic diseases (26.6%), and diarrhea (16.7%). This finding indicates that respiratory health problems are still a major concern in this population. All this data provides

a picture that the characteristics of respondent families tend to be in the productive age group, middle to lower education levels, dominance of informal or labor jobs, and income limitations, all of which have the potential to affect the health condition and welfare of toddlers in these families.

3.1.2. Respondent Knowledge Level

Based on the analysis results of respondent knowledge levels regarding nutrition and healthy eating patterns for toddlers, it appears that respondents' knowledge is generally still low. Only one statement was answered correctly by all respondents, namely that carrots are a source of vitamin A (100%). Meanwhile, most important statements related to nutrition were answered incorrectly by the majority of respondents. Only 23.3% knew that eggs, tempeh, and meat are protein sources, and only 13.3% understood that oil and cheese are fat sources. Even understanding the concept of nutritious food was also inaccurate, as 63.3% of respondents thought that nutritious food is tasty and filling, whereas this does not necessarily reflect complete nutritional content.

Respondents' knowledge about feeding practices for toddlers also still needs improvement. As many as 66.7% incorrectly answered that breast milk and complementary foods should be given to babies aged 0-24 months, whereas this period is the golden period in meeting children's nutrition. Additionally, only 6.7% of respondents correctly understood the concept of "4 healthy 5 perfect," indicating low understanding of balanced eating patterns. Knowledge about mineral sources from nuts and seeds was also still minimal, where only 16.7% answered correctly.

In technical knowledge aspects related to food processing, there were some positive findings, such as understanding how to wash rice with water until clear (76.7%) and washing vegetables with running water before cutting (86.7%). However, respondents still lacked understanding of proper vegetable cooking methods to prevent vitamin loss (only 10% answered correctly), and many still misunderstood hygienic food storage methods.

Regarding understanding of nutrients, only 13.3% knew that malnutrition can disrupt children's growth and development. Knowledge about the functions of vitamins and other nutrients was also very low; only 33.3% knew the function of vitamin A for growth, and only 13.3% understood that fat is not directly related to eye health. On the other hand, understanding of protein function as a building substance was relatively better, with 63.3% answering correctly. Overall, these results indicate the need to improve nutrition education at the family level, especially for parents with toddlers. Structured and needs-based counseling interventions are very important to support optimal child growth and development.

3.1.3. Respondent Parenting Patterns

Most respondents have implemented several positive practices, although there are still a number of aspects that require attention and improvement. Most mothers provide food three times a day (80%), while 20% provide food less than three times a day, and none provide food more than three times. However, only 16.7% of mothers provide varied menus every day, showing that food variety is still very limited, whereas menu diversity is important to meet children's nutritional needs.

Regarding children's eating habits, the majority of children do not finish their food (73.3%), and only a small proportion of mothers coax their children when they refuse to eat (10%), while the rest choose to ignore (none) or force (90%). This shows that parents' approaches to dealing with children's food refusal are still inappropriate and tend to be coercive, which has the potential to negatively impact children's eating behavior.

Most mothers accompany their children while eating (86.7%), which is a positive practice in supporting interaction and supervision of children's food intake. However, there are 27.6% of respondents who still apply food restrictions to their children, which has the potential to hinder balanced nutrition fulfillment if these restrictions are not based on medical considerations. In terms of cleanliness, almost all mothers bathe their children twice a day (96.7%), and the majority (86.7%) regularly clean their children's nails and make children wear footwear when leaving the house (83.3%), reflecting awareness of children's personal hygiene.

However, hand hygiene practices before feeding children and after children defecate are still important notes. Only 43.4% of mothers wash their hands with soap before feeding their children, and the same percentage is found in the habit of washing hands after children defecate. The majority of mothers (56.6%) do not perform these two important practices, which risks increasing the possibility of infectious disease transmission to children such as diarrhea and respiratory infections.

Overall, these results illustrate that although there are good parenting practices in terms of meal frequency, children's physical hygiene, and meal accompaniment, many mothers still lack sufficient understanding about the importance of food diversity, ways to deal with children who have difficulty eating, and personal hygiene in feeding practices. Therefore, comprehensive educational interventions are needed to improve parenting that supports optimal toddler growth and development.

3.2. Environment

3.2.1. Health Service Utilization

Based on the analysis results of health service utilization by respondents, the majority of families have quite close geographical access to health facilities. As many as 53.3% of respondents live within less than 1 km from the nearest health facility, and 40% within a radius of less than 5 km. Only 6.7% live more than 5 km away, indicating that physical access to health services is generally quite good. Travel time to service facilities is also relatively short, with 46.7% able to reach them in less than 15 minutes, while 50% need 16-30 minutes. This shows that most families do not face significant time barriers to accessing health services.

Accessibility to transportation modes is still a challenge for some respondents. Although 80% stated that public transportation to health facilities is available, there are 13.3% who stated it is only available occasionally, and 6.7% stated it is not available at all. The availability of transportation is important because it affects the consistency of visits and health service utilization, especially for families with limited private vehicles.

Utilization of community health services such as Posyandu (Integrated Health Service Post) or Poskesdes (Village Health Post) shows very positive trends. As many as 96.7% of respondents claimed to have utilized these services in the last three months, and the same proportion also reported having received immunizations at these facilities. Similarly, the provision of nutritional supplements such as vitamin A, Fe, and micronutrient supplements was received by 93.3% of respondents. This indicates the success of basic health programs in reaching the community, especially those related to promotive and preventive efforts.

However, the frequency of toddler weighing at Posyandu (Integrated Health Service Post) or Puskesmas (Community Health Center) is still relatively low. Most (76.7%) only weigh 1-3 times, and only 23.3% do it more than 4 times, which should ideally follow monthly schedules. Additionally, participation in health counseling is also still limited, where only 96.7% have ever attended counseling, without regular or periodic involvement shown by the "sometimes" option that was not selected at all. This shows the need to strengthen education

and increase community awareness about the importance of routine weighing and active involvement in counseling.

Finally, the utilization of Polindes (Village Maternity Post) or village midwife services in the last month also shows high usage rates, namely 86.7%. This reflects that basic maternal and child health services at the village level are still the community's main choice. Overall, these findings show that access to and utilization of basic health services by the community is quite good, but there is still a need for improvement in terms of frequency and quality of participation, especially in growth and development monitoring activities and routine toddler health education.

3.2.2. Environmental Sanitation

Overall, it can be concluded that access to clean water is quite good, but there are still several aspects that need attention for improving sanitation quality. Most respondents (96.7%) obtain clean water sources within less than 1 km distance, and 90% can reach them in less than 30 minutes. This shows that the availability of clean water is relatively easy to access physically. Additionally, the majority of respondents (86.7%) stated that clean water is easily available throughout the year, while 13.3% admitted experiencing difficulties during the dry season.

Although access to clean water is quite good, water quality is still a concern. As many as 36.7% of respondents stated that the water used is still turbid, although most (93.3%) reported that the water is colorless, tasteless (93.3%), foam-free (100%), and odorless (93.3%). This finding indicates potential physical contamination, such as soil particles or sediment, although it has not yet shown significant chemical or biological pollution indicators.

Regarding potential pollution around water sources, most respondents (93.3%) stated that within a 10-meter radius there are no pollution sources such as waste or septic tanks, but 6.7% indicated the presence of nearby pollution sources, which certainly requires more attention to prevent microbiological water contamination.

In waste management aspects, 83.3% of households already have waste disposal facilities, but only 50% use covered trash bins. This shows that half of the respondents still do not implement hygienic waste management practices, which can become a source of disease vector development. Meanwhile, only 40% of households provide special disposal facilities for wet (organic) waste, meaning most have not sorted waste by type, potentially increasing domestic environmental pollution.

Defecation habits show fairly good practices, with 60% of respondents stating they use latrines, while 40% still do not, indicating open defecation that risks spreading water-based diseases such as diarrhea and worm infections. Overall, although most respondents have good access to clean water and basic sanitation facilities, there are still challenges in water quality, waste management, and hygienic behavior in using latrines and covered trash bins. Therefore, further education and facilitation by the government or related parties are needed to support sustainable environmental sanitation improvements. Table 1 provides a detailed breakdown of participants' educational attainment and comparative analysis of pre-test and post-test results

Table 1. Distribution of Education Level and Comparison of Pre-test and Post-test Results of Respondents

Variable	Proportion (%) N: 30
Educational Attainment	
No formal education	0 (0%)
Elementary School	2 (6.7%)
Junior High School	13 (43.3%)
Senior High School	14 (46.7%)
Higher Education	1 (3.3%)
Pre-test	
≥70	6 (20%)
<70	24 (80%)
Post-test	
≥70	30 (100%)
<70	0 (0%)

3.3. Intervention I Results and Monitoring

Due to enthusiastic community response and cadres' inability to limit the number of participants, there were 30 participants in the malnutrition counseling at Patrasana Village Hall. It was known that 100% (30 participants) who attended were women, with an average age of around [age not specified in original]. The majority education level of attendees was elementary school and no schooling, each accounting for 30% or 12 people with only elementary education and 12 people with no schooling.

In the pretest, data showed that 13 people or 32.5% achieved scores of 70 or above, and 27 people or 67.5% achieved scores below 70. Meanwhile, in the post-test, 32 people (80%) achieved scores of 70 or above and 8 people (20%) achieved scores below 70. Figure 1 presents the comprehensive PDCA framework used for the first intervention cycle.

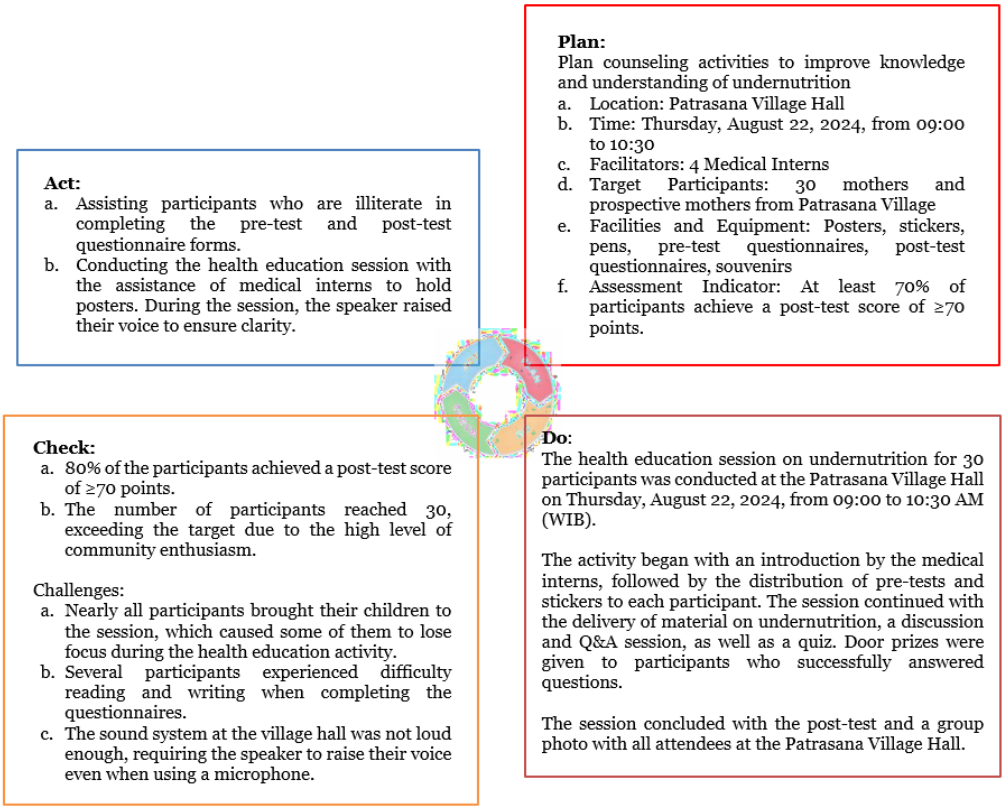

Figure 1. PDCA Cycle Intervention I

3.4. Intervention II: Creative Food Making and Balanced Nutrition Menu Planning Training

The activity began with requesting permission from the Head of Kresek Health Center for intervention and coordination with the nutrition program team and Health Promotion regarding the time and place for the creative food making and balanced nutrition menu planning training intervention. Subsequently, permission was requested from the Head of Patrasana Village, followed by preparing the necessary equipment for the training intervention such as rice, corn and egg stir-fry, food containers, and gloves.

The creative food making and balanced nutrition menu planning training was conducted on Thursday, August 22, 2024, from 10:30-11:15 WIB with 30 participants attending, the same as the health education participants. The training took place at Patrasana Village Hall. The activity began with an opening by medical students, followed by explanations about the benefits of creative food making for children and balanced nutrition menu planning. The activity was led by medical students and one representative from the intervention participants who volunteered to lead together with the medical students in making creative rice balls with corn and egg stir-fry. The activity concluded with closing remarks by medical students, followed by refreshment distribution and group photos with all participants.

3.4.1. Intervention Results II and Monitoring

Due to enthusiastic community response and inability of cadres to limit participant numbers, the intervention was conducted with 30 attending participants, calling one volunteer participant to lead together with medical students following the medical students' guidance. The activity assessment indicator was that one called participant could perform the creative food making activity well and correctly while being observed by all other participants. Building on lessons learned from the first cycle, the second intervention adopted a more interactive approach, as demonstrated in Figure 2

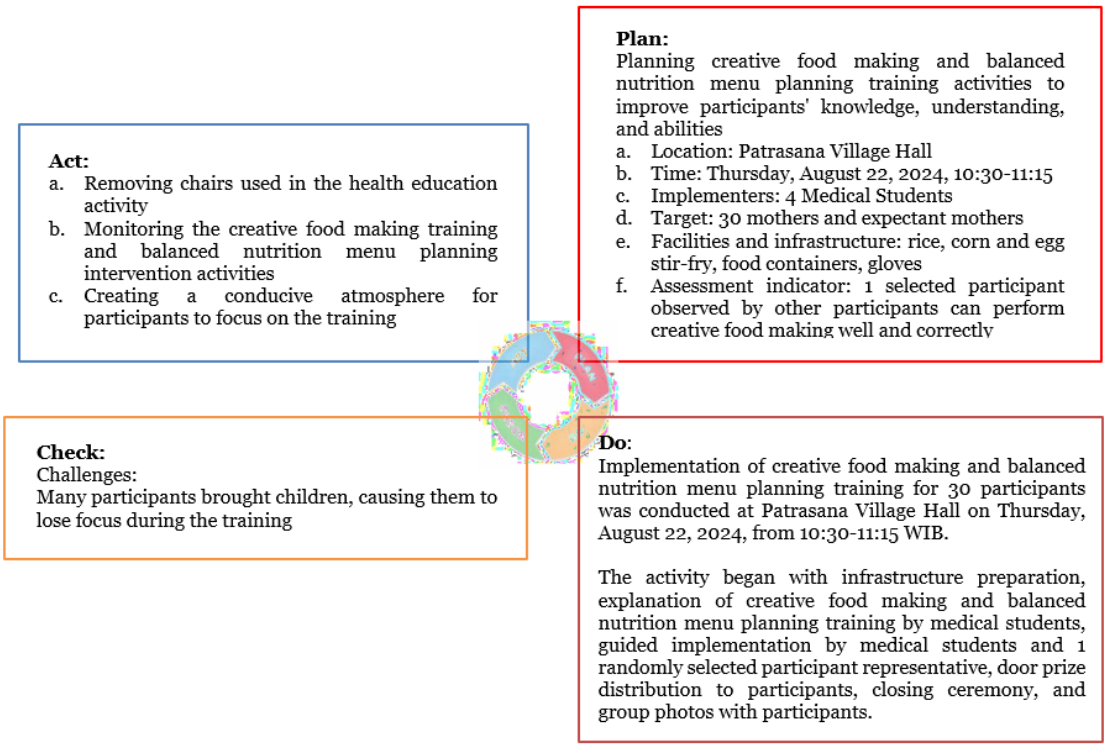

Figure 2. PDCA Cycle Intervention II

3.5. Activity Evaluation

The evaluation method used for the intervention was the systems approach method. The evaluation of the first intervention using the systems approach method is detailed in Table 2.

Table 2. Intervention 1: Conducting Health Education on Knowledge and Attitudes about Toddler Malnutrition

No.	Variable	Benchmark	Achievement	Gap
1.	**INPUT**			
	Man: Medical Students	4 people	4 people	None
	Money: Printing pre-test and post-test questionnaire sheets, posters, stickers, pens, and snacks	Rp. 1,000,000	Rp. 772,000	None
	Material:			
	- Pre-test questionnaire sheets	30 sheets	30 sheets	None
	- Post-test questionnaire sheets	30 sheets	30 sheets	None
	- Pens	2 boxes	2 boxes	None
	- Stickers	40 sheets	40 sheets	None
	- Posters	1 sheet	1 sheet	None
	- Snack boxes	40 boxes	40 boxes	None
	- UHT milk boxes	1 box	1 box	None
	- PMT from Health Center	32 food boxes	32 food boxes	None
	- Tumbler prizes for Q&A	3 tumblers	3 tumblers	None
	Method - Available health education procedures	According to health education procedures	According to health education procedures	None
2.	**PROCESS**			
	Planning			
	Coordination with the Head of Puskesmas, General Practitioner, Undernutrition Program Officer of Kresek Health Center, and Head of Patrasana Village	Obtaining permission to conduct counseling	Conducted as planned	None
	Planning of target, location, time, and intervention for counseling	Determination of target, location, time, and intervention to be carried out	Implemented on time	None
	Planning of success indicators	Determination of success indicators	Conducted as planned	None
	Planning of required budget	Determination of required budget	Conducted as planned	None
	Planning of counseling materials	Determination of materials for counseling	Conducted as planned	None
	Assessing questionnaire results	Questionnaire assessment conducted	Conducted as planned	None
	Organizing			
	Managing permit requests with relevant institutions for the activity	Permission was granted to distribute questionnaires	Permission granted to distribute questionnaires in Patrasana Village Hall	None
	Creating and printing questionnaires	30 questionnaire sheets created and printed	Distributed to 30 participants	None
	Preparing pens	Pens prepared	Conducted as planned	None
	Actuating			
	Opening and self-introduction	4 medical interns opened and introduced themselves	4 medical interns opened and introduced themselves	None

No.	Variable	Benchmark	Achievement	Gap
	Conducting pre-test	Pre-test conducted on 30 participants	Pre-test conducted on 30 participants	None
	Poster installation and sticker distribution	Posters installed and stickers distributed	Posters installed and stickers distributed	None
	Conducting counseling	4 medical interns conducted counseling	4 medical interns conducted counseling	None
	Q&A session	Q&A session conducted	Q&A session conducted	None
	Conducting post-test	Post-test conducted on 30 participants	Post-test conducted on 30 participants	None
	Snack distribution	Snacks distributed	Snacks distributed	
	Controlling			
	Monitoring the intervention activities by 4 medical interns	Counseling activity ran smoothly	Counseling activity ran smoothly	None
	Evaluating pre-test and post-test results based on correct answers	Pre-test and post-test evaluation conducted	Pre-test and post-test evaluation conducted	None
3.	**OUTPUT**			
	Increased knowledge and behavior of mothers regarding undernutrition and its prevention	>80% of participants scored ≥70 on the post-test	All 30 participants scored ≥70 on the post-test	None
4.	**ENVIRONMENT**			
	Physical: Building	Patrasana Village Hall	Patrasana Village Hall	
	Non-physical: Support from the Head of Puskesmas, General Practitioner, Undernutrition Program Officer of Kresek Health Center, and Head of Patrasana Village	Support obtained from all involved parties	Support obtained from all involved parties	None
5.	**FEEDBACK**			
	Recording and reporting conducted	Recording and reporting conducted	Intervention results used for future improvement	None
	Used feedback results for future improvement	Use of feedback results for future improvement	Use of feedback results for future improvement	None
6.	**IMPACT**			
	General objectives of program implementation	Improved knowledge, behavior, and attitude of mothers regarding undernutrition	Improved knowledge, behavior, and attitude of mothers regarding undernutrition	None

The evaluation of the first intervention, which focused on health education regarding mothers' knowledge and attitudes toward undernutrition in toddlers, shows that all activity components were implemented systematically and effectively (Von Kodolitsch et al., 2015). In terms of input, all required resources including human resources, funding, materials, and methods were available and utilized optimally. Four young doctors were actively involved, and all supporting facilities such as pre-test and post-test questionnaires, writing materials, educational media (posters and stickers), and refreshments for participants were provided according to plan without any gaps.

In the process stage, the health education activities went through comprehensive planning, including coordination with stakeholders, target determination, location, timing, materials, and success indicators. The organizing process also went well with permit arrangements with relevant parties and provision of all logistical needs. Activity implementation, from opening, pre-test administration, health education, discussion sessions, to post-test and refreshment distribution, was carried out according to established

procedures and timeframes. Supervision was also conducted directly by the implementation team, including evaluation of pre-test and post-test results. No discrepancies were found between planning and implementation throughout all process stages, indicating that activities proceeded according to established operational standards.

In terms of output, evaluation results showed that 100% of participants achieved post-test scores ≥70, indicating significant improvement in knowledge and attitudes after the intervention. This result exceeded the established success indicator (>80%), demonstrating that the health education provided was substantially successful in improving participants' understanding. In the environmental dimension, the intervention was supported by adequate physical facilities, namely the Patrasana Village Hall, as well as non-physical support from various parties, including the Head of Puskesmas, general practitioners, nutrition program coordinators at Puskesmas Kresek, and the local Village Head. The availability of facilities and cross-sector support became a supporting factor for successful program implementation.

In terms of feedback, activity recording and reporting were well implemented, and the results obtained were utilized for future program improvement. This indicates that the activity was not only implementative but also integrated evaluative aspects for improving future intervention quality. Finally, in terms of impact, this intervention successfully achieved its main objective of improving mothers' knowledge, attitudes, and behavior related to preventing undernutrition in toddlers. All achievement indicators showed success without any gaps, so it can be concluded that this intervention program was effective, relevant, and suitable for replication in similar contexts to support promotive and preventive efforts in public health. The evaluation results of the second intervention are presented in Table 3, which details the food creation training and balanced nutrition menu planning activities

Table 3. Intervention 2: Food Creation Training and Balanced Nutrition Menu Planning

No.	Variable	Benchmark	Achievement	Gap
1.	**INPUT**			
	Man - Young Doctors	4 people	4 people	None
	Money - Balanced Nutrition Menu Planning	Rp. 300,000	Rp. 200,000	None
	Material - Rice, Sweet corn, Eggs, Tomatoes, Gloves, Food containers	4 rice servings, 2 corn cobs, 3 eggs, 2 tomatoes, 6 pairs of gloves, 1 food container	4 rice servings, 2 corn cobs, 3 eggs, 2 tomatoes, 6 pairs of gloves, 1 food container	None
	Method - Procedure for balanced nutrition food creation training	According to education procedure	According to education procedure	None
2.	**PROCESS**			
	Planning			
	Coordination with the Head of Puskesmas, General Practitioner, Undernutrition Program Officer of Kresek Health Center, and Head of Patrasana Village	Obtaining permission to introduce and practice food creation arrangement in Patrasana Village	Conducted as planned	None
	Planning of target, location, time, and intervention for counseling	Determining targets, location, time, and intervention to be conducted	Conducted as planned	None
	Planning of success indicators	Determining success indicators	Conducted as planned	None

No.	Variable	Benchmark	Achievement	Gap
	Planning of required budget	Determining required budget	Conducted as planned	None
	Planning of counseling materials	Determination of materials for counseling	Conducted as planned	None
	Assessing food creation menu planning activity success	Assessing food creation menu planning activity success	Conducted as planned	None
	Organizing			
	Managing permit requests with relevant institutions	Permission granted to introduce and practice food creation arrangement	Permission granted to introduce and practice food creation arrangement	None
	Actuating			
	Introducing and practicing food menu arrangement methods	Introduction and practice of food creation arrangement methods conducted	Introduction and practice of food creation arrangement methods conducted	None
	Controlling			
	Monitoring intervention activities by 4 young doctors	Activities ran smoothly	Activities ran smoothly	None
3.	**OUTPUT**			
	Improving mothers' knowledge to create balanced and attractive food so children don't get bored and can finish prepared food	Activities ran smoothly	Activities ran smoothly	None
4.	**ENVIRONMENT**			
	Physical: Prepared food menu	Prepared food menu	Prepared food menu	None
	Non-physical: Support from Puskesmas Head, General Practitioner, Undernutrition Program Holder at Puskesmas Kresek, Patrasana Village Head	Support obtained from relevant parties	Support obtained from relevant parties	None
5.	**FEEDBACK**			
	Recording and reporting conducted	Recording and reporting conducted	Intervention results obtained for future improvement	None
	Using feedback results for future improvement	Using feedback results for future improvement	Using feedback results for future improvement	None
6.	**IMPACT**			
	General objective of program implementation	Improving mothers' knowledge, behavior, and attitudes about undernutrition	Improving mothers' knowledge, behavior, and attitudes about undernutrition	None

The evaluation of the second intervention, namely training in balanced nutrition menu planning and food creation, shows effective activity implementation according to plan. From the input aspect, all needs including implementing personnel (four young doctors), budget allocation, food ingredients, supporting equipment, and training methods were optimally fulfilled. The budget used was Rp 200,000 from the total planned Rp 300,000, showing efficient budget use without reducing activity quality. All food ingredients such as rice, corn, eggs, and tomatoes, as well as gloves and food containers, were available according to needs, and activity implementation followed previously established procedures. No gaps were found in this input component.

In the process aspect, training activities began with comprehensive planning, including coordination with Puskesmas Kresek, village officials, and other stakeholders. Determining

targets, location, time, budget, and success indicators was done well. Organizing processes such as implementation permit arrangements also went smoothly. In the implementation stage, young doctors introduced balanced menu planning concepts and directly practiced how to create attractive food for children. All stages proceeded according to schedule without obstacles, and activities ran smoothly. Control over implementation was also conducted through direct monitoring by the implementation team, and evaluation results showed that all processes were carried out according to plan, without significant gaps.

In terms of output, this training successfully improved mothers' knowledge about the importance of food creation that is not only nutritionally balanced but also visually attractive for children, helping to increase appetite and prevent boredom. This success was demonstrated by active participant participation during practice, as well as final results in the form of well-presented food menus. Activities proceeded according to objectives without significant obstacles. In the environmental aspect, physical and non-physical environmental support strongly supported activity success. The facilities used were adequate, and support from the Puskesmas Head, general practitioner, nutrition program staff, and Patrasana Village Head contributed to activity smoothness. No obstacles were found from the environmental side, both physically and administratively.

In terms of feedback, activity recording and reporting were conducted systematically. Activity results were used as evaluation material for future program improvement, ensuring intervention sustainability based on data and field experience. The use of this feedback results became an indicator that the activity had good evaluative mechanisms. Finally, in terms of impact, this training successfully supported the achievement of general program objectives, namely improving mothers' knowledge, attitudes, and behavior in preventing undernutrition in toddlers. There were no gaps between planned objectives and achieved results, indicating that this training intervention was suitable for replication in other areas as part of promotive and preventive efforts in community nutrition.

4. Conclusion

The location with the highest number of new undernutrition cases in toddlers in the Puskesmas Kresek working area is Patrasana Village. Based on field findings, the main cause of the high number of cases is due to mothers' and prospective mothers' lack of knowledge, as well as low levels of knowledge, attitudes, and behavior related to fulfilling toddler nutrition. To address this problem, two forms of short-term interventions were conducted that were assessed to have significant leverage in supporting the achievement of medium-term and long-term objectives. The first intervention was health education regarding knowledge and attitudes related to undernutrition in toddlers, while the second intervention was training in food creation and balanced nutrition menu planning. Results from implementing both interventions showed significant success, where all participants (100%) attending the health education achieved post-test scores ≥70. Additionally, the balanced nutrition menu planning and food creation training also ran smoothly, with active participant involvement and successful practice of proper menu planning by one participant.

As a follow-up to intervention results, it is recommended that the Patrasana Village community, especially mothers and prospective mothers, improve their understanding of causes, impacts, and prevention of undernutrition through balanced nutrition eating patterns and application of "Isi Piringku" (My Plate) principles in daily life. Parents are expected to actively check toddlers at health facilities if undernutrition symptoms are found, and educate family and surrounding environment based on information obtained from health education.

Puskesmas Kresek is expected to routinely conduct health promotion, cadre training, information media provision, and nutrition screening and PMT program implementation periodically. Additionally, the next community diagnosis group needs to evaluate intervention results and expand activities to other villages that still have similar problems so that the impact of undernutrition prevention is more equitable and sustainable.

5. References

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