

Effectiveness of Booklet Training for Cadres in Supporting Stunted Toddlers' Feeding

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ABSTRACT

Stunting remains a critical public health issue in Indonesia, with a prevalence of 21.6% among toddlers. In Semarang City, stunting rates persist despite interventions, highlighting the need for effective community-based strategies. Posyandu (integrated health post) cadres play a vital role in nutrition education, yet many lack adequate knowledge and skills to support caregivers of stunted children. This study aimed to evaluate the effectiveness of training using booklets in improving the knowledge and attitudes of Posyandu cadres in assisting complementary feeding for stunted toddlers aged 12–59 months. A quasi-experimental nonequivalent control group design was employed, involving 44 cadres (22 intervention, 22 control) from Lamper Tengah and Poncol Health Centers. The intervention group received booklet-based training, while the control group did not. Pre- and post-tests assessed changes in knowledge and attitudes using validated questionnaires. Data were analyzed using the Wilcoxon Signed-Rank Test. The intervention group showed significant improvements in knowledge (mean pre-test: 8.91; post-test: 10.05, $*p < 0.001$) and attitudes (mean pre-test: 7.27; post-test: 8.77, $*p < 0.001$). Cadres with higher education demonstrated greater gains. The booklet's structured, practical content was credited for enhancing comprehension and motivation. Booklet-based training is an effective, low-cost tool to empower cadres in stunting prevention. Scaling up such interventions could strengthen community health programs and reduce stunting prevalence. Future research should explore long-term impacts and integration with digital platforms.

Keywords: *stunting, booklet training, Posyandu cadres, complementary feeding, nutrition education*

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INTRODUCTION

The success of health sector development largely depends on meeting optimal nutritional needs. Vulnerable groups such as toddlers, school-aged children, and pregnant women require special attention, as malnutrition can have severe negative impacts. Adequate nutritional intake during the first five years of life is crucial to support healthy growth, proper organ development, a strong immune system, and the development of the nervous and cognitive systems (Conti et al., 2023; Das et al., 2017; Fabozzi et al., 2022; Rahmawati & Retnaningrum, 2022; Wang et al., 2022). Malnutrition in children can hinder cognitive and intellectual development, reduce productivity, and interfere with both physical and mental growth, ultimately affecting learning abilities. Furthermore, prolonged malnutrition can lead to weakened immunity, reduced healthy life expectancy, and increased risks of disease, disability, and mortality among toddlers (Corcoran et al., 2019; Dipasquale et al., 2020; Kobylińska et al., 2022; Serón-Arbeloa et al., 2022).

The dietary patterns of toddlers play a critical role in supporting their growth and development, as food serves as the primary source of nutrition. Nutrition itself is a key element for a child's growth, development, health, and intelligence. If a toddler's diet does not meet

age-appropriate requirements, these aspects may be compromised, leading to conditions such as poor cognitive development, malnutrition, or stunting (Nindyna Puspasari & Merryana Andriani, 2017; Surhajito et al., 2017; Thaisriwong & Phupong, 2023; Wiji et al., 2023). Stunting refers to a condition where a child experiences impaired physical growth (short stature) due to prolonged nutritional deficiencies. This failure to grow and develop is triggered by multiple factors, including low economic conditions, limited health knowledge, inadequate nutritional intake, and improper parenting practices. The impacts of stunting include reduced intellectual capacity and increased susceptibility to illness. According to the Indonesian Ministry of Health Regulation No. 2 of 2020 regarding anthropometric standards for assessing children's nutritional status, stunting is defined as a nutritional condition based on the height-for-age index (HAZ) with a Z-Score less than -2 standard deviations (SD). If a child's height is below -2 SD of the WHO growth median, they are classified as stunted.

According to the Pocket Book of the Indonesian Nutrition Status Survey (*SSGI*) 2022, the prevalence of stunting among toddlers is 21.6%. Nutritional status monitoring is conducted through eleven specific interventions that begin even before pregnancy, including anemia screening and the provision of iron supplements (*TTD*) for adolescent girls. During pregnancy, interventions include antenatal care (*ANC*), additional iron supplementation, and supplementary food for pregnant women experiencing chronic energy deficiency (*CED*). After birth, attention is focused on toddlers through growth monitoring, exclusive breastfeeding, and complementary feeding (*MPASI*) with animal-based protein for children under two years old. Other interventions include addressing malnutrition (underweight, severe malnutrition, and stunting), improving immunization coverage, educating adolescents and families, and campaigns to eliminate open defecation practices.

Based on *SSGI* 2022 data, the stunting prevalence among toddlers in Central Java Province is 20.8%. In Semarang City, the prevalence of stunting among toddlers is recorded at 10.4%. Additionally, 13.5% of toddlers in Semarang are underweight, while 4.3% are overweight. According to the 2021 Semarang City Health Profile, the Lamper Tengah Community Health Center (*Puskesmas*) recorded 11.8% of toddlers with stunting and 10.6% with malnutrition. By 2022, these rates had dropped significantly to 3.4% for stunting and 0.3% for malnutrition. This decline is believed to be linked to the presence of satellite *posyandu* (integrated health posts), where regular monitoring of toddler health is actively carried out by local health volunteers (*kader*). Meanwhile, in the Poncol Community Health Center area, which lacks satellite *posyandu*, 12.5% of toddlers are stunted, and 12.5% are malnourished. In this study, the Lamper Tengah satellite *posyandu* serves as the treatment group, where volunteers will receive booklets as educational media, while the Poncol *posyandu* acts as the control group, without booklet distribution. The research method aims to compare the effectiveness of these two approaches in improving toddler health outcomes.

According to UNICEF, stunting affects intelligence levels, increases disease susceptibility, reduces productivity, and hampers economic growth, leading to greater poverty and inequality. Therefore, stunting in the Lamper Tengah and Poncol areas requires special attention, particularly regarding feeding practices for toddlers with working mothers. Caregivers, such as grandparents, nannies, or relatives, often lack adequate knowledge about child nutrition and health. The researchers are therefore interested in analyzing the

Effectiveness of Training Using Booklets on the Knowledge and Attitudes of Volunteers in Assisting the Feeding of Stunted Toddlers Aged 12–59 Months. Volunteers play an essential role in improving community nutrition and health by providing education and counseling to pregnant women, mothers of infants, and mothers of young children. Training *posyandu* volunteers is crucial, as they are considered capable and qualified to assist mothers with children aged 12–59 months in monitoring growth and ensuring sufficient nutrition intake to reduce stunting cases.

In the Lamper Tengah area, special attention is given to satellite *posyandu*. One alternative for early detection of nutritional problems and implementing nutrition interventions is the formation of *Posyandu Satelit Erda (Erte Dawis)* at the neighborhood (*RT*) or household group (*Dasa Wisma*) level. This initiative helps avoid overcrowding and allows for more focused health monitoring. Satellite *posyandu* do not replace conventional *posyandu* but serve as a complement. While conventional *posyandu* operate at the community (*RW*) level once a month, satellite *posyandu* can operate daily depending on the host volunteer's availability. Satellite *posyandu* volunteers are trained by healthcare professionals or experienced conventional *posyandu* volunteers. While they do not maintain official records, they keep simple documentation of health data.

Satellite *posyandu* typically operate in a volunteer's home, with dedicated space for equipment and educational materials, including anthropometry tools, posters, booklets, and other learning resources. The home selected must have a resident willing to dedicate part of their space and serve as the volunteer. Satellite *posyandu* provide early detection and management for malnutrition issues such as stunting, wasting, underweight, severe malnutrition, chronic energy deficiency (*CED*), and obesity at the neighborhood level. These facilities empower communities to engage in health practices and serve as learning centers for promoting healthy lifestyles as a shared responsibility. Before operations begin, host mothers are trained by public health nutrition officers who have completed Training of Trainers (*TOT*). Basic anthropometric tools, including digital scales, infantometers (accurate to 0.1 cm), stadiometers, and MUAC (mid-upper arm circumference) tapes, are essential. Five educational posters are required, covering topics like measuring weight, height/length, MUAC, and growth monitoring charts (*KMS*) for boys and girls.

Satellite *posyandu* in Lamper Tengah, Semarang, plays an important role in preventing stunting through various interventions, including the Supplementary Feeding Program (*PMT*) for toddlers. *PMT* provides additional nutritious meals for undernourished toddlers to improve their nutritional status. This program is regulated under the Indonesian Ministry of Health Regulation (*Permenkes*, 2016). *PMT* aims to provide balanced nutritional intake using locally available and affordable foods suitable for toddlers' needs. *Posyandu* volunteers are key personnel in this initiative, as they handle *PMT* distribution and nutritional monitoring as part of stunting prevention efforts.

From the situation analysis, one major challenge identified in the Lamper Tengah *posyandu* area is the lack of knowledge and skills among volunteers in preparing balanced and nutritious supplementary foods. Many volunteers are not fully aware of the basic principles of balanced nutrition required for *PMT* menu planning. Examples of suitable *PMT* foods for toddlers include bananas and homemade nuggets, as these are easy-to-find local ingredients that are well-liked by children. Based on these findings, the

researchers were inspired to provide *PMT* training using banana pancakes as a simple, affordable, and nutritious supplementary menu for toddlers.

Within the Lamper Tengah Community Health Center area, which covers four subdistricts—Lamper Tengah, Lamper Lor, Lamper Kidul, and Peterongan—there are 60 stunted toddlers: 21 in Lamper Tengah, 7 in Lamper Lor, 8 in Lamper Kidul, and 24 in Peterongan. The high number of stunted toddlers is largely due to mothers who work and entrust their children to caregivers who often lack adequate nutritional knowledge.

A critical gap exists in the capacity of community health workers, particularly *Posyandu* cadres, to deliver effective nutrition education and support for caregivers of stunted children. Many cadres lack standardized training materials and practical tools to address feeding practices, leading to inconsistent messaging and suboptimal outcomes. This gap is exacerbated by the reliance on caregivers who often have limited nutritional knowledge, highlighting the urgent need for targeted, accessible training interventions to bridge this knowledge divide. This study introduces a novel approach by developing and evaluating a structured booklet as a training tool for *Posyandu* cadres, focusing on complementary feeding for stunted toddlers aged 12–59 months.

Unlike generic health materials, the booklet is tailored to local contexts, incorporating evidence-based guidelines and practical feeding strategies specific to stunting management. Its design emphasizes visual aids and simplified language to enhance comprehension and retention among cadres with varying educational backgrounds. The research also adopts a quasi-experimental design to measure the booklet's impact on both knowledge and attitudes, addressing a methodological gap in previous studies that often focus solely on knowledge outcomes. By integrating behavioral change principles into the training, this study offers a holistic solution to improve cadre performance in community settings.

The primary objective of this research is to assess the effectiveness of booklet-based training in enhancing the knowledge and attitudes of *Posyandu* cadres regarding complementary feeding for stunted toddlers. Additionally, the study aims to identify factors influencing the intervention's success, such as cadre education level and prior experience. The findings are expected to provide actionable insights for policymakers and health practitioners to refine community-based stunting prevention programs. Beyond immediate health benefits, improving cadre competency can empower communities to sustain long-term nutritional improvements, ultimately contributing to national goals of reducing stunting prevalence and its associated economic burdens. This research thus aligns with global efforts to achieve Sustainable Development Goal 2 (*Zero Hunger*) by addressing a critical bottleneck in Indonesia's stunting reduction strategy.

METHOD

This study is quantitative research with a quasi-experimental nonequivalent control group design, which is used to determine the effect of a specific treatment on another variable under controlled conditions by comparing two groups: the treatment group and the control group. In this design, the treatment and control groups are not selected randomly. Both groups will be given pre-tests and post-tests, but only the treatment group will receive the intervention using a booklet. The same questionnaire will be administered to each group of respondents twice. The interval between the pre-test and post-test will be neither too close nor too far apart,

set between 15 to 30 days, which is considered an appropriate time frame. If the interval is too short, respondents may still remember the pre-test questions, while a longer interval may allow changes in the measured variables. Thus, the study uses a 15-day interval between the pre-test and post-test for both experimental and control groups after the intervention.

Population and Sample

The population in this study includes all the data sources needed for the research. The population consists of 22 *Posyandu Satelit* volunteers in the working area of *Puskesmas* Lamper Tengah and 21 volunteers in the *Puskesmas* Poncol area. The sample is a subset of the population selected through specific criteria and is considered representative of the entire population. The sampling technique used is Non-Probability Sampling, which does not provide an equal chance for every member of the population to be selected as a sample. This study applies purposive sampling, where the researchers select subjects based on inclusion criteria, focusing on stunted toddlers within the *Puskesmas* Lamper Tengah and *Puskesmas* Poncol areas. According to Notoatmodjo (2012), to avoid insufficient sample sizes, an additional 10% is recommended: $10\% \times 40 = 4$, resulting in a total of 44 respondents. These 44 respondents are divided into two groups, with 22 in the control group and 22 in the treatment group. The inclusion criteria are as follows: a) All *Posyandu Satelit* volunteers in the Lamper Tengah and Poncol areas; b) Residing within the working area of *Puskesmas* Lamper Tengah or *Puskesmas* Poncol; c) Willingness to participate as respondents.

Operational Definitions, Research Variables, and Measurement Scale
The independent variable in this study is training on supplementary feeding (*PMT*) using a booklet as a medium, while the dependent variables are knowledge, attitude, and behavior of the caregivers of stunted toddlers. Operational definitions are provided to clarify the meaning of all variables and terms used in the study, ensuring that readers understand their significance.

Data Collection Techniques

Data collection is a strategic step to obtain valid information in research. The methods used in this study include interviews, observations, and questionnaires.

- Primary Data: Obtained directly from respondents through questionnaire completion.
- Secondary Data: Derived from *KIA* (Maternal and Child Health) books, which contain information on the mother's pregnancy history, such as the number of births, expected delivery date, maternal age during pregnancy, arm circumference (*LILA*), hemoglobin levels, weight, height, and records of child growth and development in the *KMS* (Growth Monitoring Chart).

Data Processing and Analysis Techniques

Data processing is crucial to avoid GIGO (garbage in, garbage out); if incorrect data is input, the output will also be incorrect. Therefore, data processing involves several stages:

- Editing: Reviewing and correcting the collected data.
- Coding: Assigning codes by converting text or statements into numeric values.
- Data Entry: Entering coded data into computer software for analysis.
- Cleaning: Checking for and correcting any errors or inconsistencies in the entered data.
- Tabulating: Organizing data into tables for easier analysis.
- Data Presentation: Displaying data in distribution tables, cross-tabulations, and graphs.

Data Analysis Techniques

Data analysis is conducted after all responses and data from other sources have been collected. This study performs two stages of data analysis: assumption testing and hypothesis testing. Assumption testing involves checking for normality and homogeneity between the experimental and control groups. Hypothesis testing is then performed to compare the control and treatment groups. The data analysis technique used in this study is the t-test, which aims to compare the measurements between two different sample groups (control and treatment). All calculations for the t-test will be conducted using SPSS software.

Univariate and Bivariate Analysis

- **Univariate Analysis (Descriptive Analysis):** This analysis describes the characteristics of each variable (Notoatmodjo, 2020). The data is analyzed descriptively with the help of computer tools and is presented in frequency distributions, including the age, education level, knowledge, and attitudes of caregivers of stunted toddlers who participated in the supplementary feeding training using the booklet.
- **Bivariate Analysis:** This analysis examines the relationship or correlation between two variables (Notoatmodjo, 2020). In this study, it investigates the impact of supplementary feeding training on changes in knowledge and attitudes of caregivers. The Wilcoxon Signed-Rank Test will be used when the data does not meet normality assumptions. The decision criteria are as follows:
 1. If $p\text{-value} < 0.05$, H_a is accepted, indicating a significant effect.
 2. If $p\text{-value} > 0.05$, H_a is rejected, indicating no significant effect.

Normality Test

The normality test aims to assess whether the residuals in the regression model are normally distributed (Ghozali, 2021). A good dataset for analysis should have a normal distribution. Normality can be checked using the Kolmogorov-Smirnov Test, with the criteria as follows:

1. If the significance value (sig) > 0.05 , the data is normally distributed.
2. If the significance value (sig) < 0.05 , the data is not normally distributed.

RESULT AND DISCUSSION

Semarang City, the capital of Central Java Province located on the northern coast of Java Island, covers an area of approximately 373.70 km², with boundaries including the Java Sea to the north, Semarang Regency to the south, Kendal Regency to the west, and Demak Regency to the east. Geographically, the city lies between 6°50' - 7°10' South Latitude and 109°35' - 110°50' East Longitude, featuring a unique topography divided into lowland areas in the north, which are prone to tidal flooding and inundation, and hilly areas in the south, with elevations reaching up to 348 meters above sea level. With a tropical climate consisting of two seasons (dry and rainy), Semarang has an average annual rainfall ranging from 2,000 to 3,000 mm. In terms of demographics, the city has a population of around 1.7 million people, with a density of approximately 4,500 people per km².

The population composition is balanced between males and females, with the majority in the productive age group (15–64 years), indicating a high potential of human resources to support economic and social development. Educational attainment is relatively high, with most residents having completed secondary or higher education, supported by the presence of

various formal educational institutions such as schools and universities. In terms of religion, the majority of the population is Muslim, while other religions such as Christianity, Catholicism, Hinduism, Buddhism, and Confucianism coexist harmoniously. The main economic sectors include services, trade, industry, and government, reflecting the dynamic, heterogeneous, and highly potential urban character of Semarang to foster sustainable city growth. This research was conducted at Posyandu Satelit, which is part of the community health service network under the coordination of Puskesmas Lamper Tengah, located in South Semarang District, Semarang City, with its working area covering several subdistricts, including Lamper Tengah, Lamper Kidul, Lamper Lor, and surrounding areas.

Univariate Analysis Results

Univariate analysis is a descriptive analysis aimed at illustrating each variable studied individually by creating frequency distribution tables for each variable. In this study, the univariate analysis involved creating frequency distribution tables for respondent characteristics (age and education level) and response characteristics for variables such as knowledge and attitudes of cadres at Puskesmas Lamper Tengah. Based on the results from 22 Posyandu Satelit cadres, the youngest respondent was 26 years old, the oldest was 62 years old, and the average age was 43 years, indicating that most cadres are in a mature and productive age group. Regarding education, the majority of respondents (16 individuals, 72.7%) had completed high school, while 6 respondents (27.3%) held a bachelor's degree. These results indicate that even though most cadres have mid-level formal education, they are highly engaged and active in supporting community health services.

There was an improvement in the knowledge level of respondents after the training using the booklet *"Feeding Stunted Toddlers Aged 12–59 Months."* Before the training (pre-test), most respondents (16 individuals, 72.7%) were in the "good knowledge" category, while 6 respondents (27.3%) were in the "poor knowledge" category. After the training (post-test), the number of respondents with good knowledge increased to 19 individuals (86.4%), while those with poor knowledge decreased to only 3 individuals (13.6%). This demonstrates that the training effectively enhanced the cadres' knowledge, as shown by the significant improvement in the number of participants within the "good knowledge" category. The pre-test results showed that questions with the highest correct responses were PK.5 (Weight is an indicator of child growth), PK.6 (Child growth can be monitored using a growth card), PK.9 (Early stimulation should begin when a child enters elementary school), and PK.11 (Nutrition factors significantly affect brain development), with 100% of respondents answering correctly. Post-test results revealed that all 22 cadres (100%) correctly answered key questions such as PK.1 (Toddlers are children aged 0–59 months), PK.2 (Growth refers to a child's ability to speak), PK.3 (Gross motor development includes walking and running), PK.5, PK.6, PK.9, and PK.10 (Child development can be monitored at the Posyandu).

There was also a notable improvement in the respondents' attitudes following the booklet training. Before the training (pre-test), only 5 respondents (22.7%) were categorized as having a "good attitude," while 17 respondents (77.3%) were in the "poor attitude" category. After the training (post-test), the number of respondents with a good attitude increased to 15 individuals (68.2%), while those in the poor attitude category decreased to 7 individuals (31.8%). This indicates that the intervention successfully improved the cadres' attitudes toward

feeding stunted toddlers. Pre-test results showed that PK.4 (Stunting can reduce cognitive abilities) received the highest affirmative response, with 21 cadres (95.5%) agreeing, indicating a relatively good attitude. After the post-test, all 22 cadres (100%) correctly answered questions such as PK.2 (Nutritional deficiencies can cause stunting), PK.3 (Stunting is determined by height-for-age measurements), PK.4, PK.6 (The first 1,000 days of life influence a child's nutritional status), PK.7 (The first 1,000 days span from pregnancy until the child is two years old), and PK.10 (Supplementary feeding should be tailored to the age and needs of the toddler), indicating a significant positive shift in attitudes.

Bivariate Analysis Results

In this bivariate analysis, the effect of training effectiveness using booklets on the knowledge and attitudes of cadres in assisting stunted toddlers aged 12 – 59 months is presented. The analysis was carried out by normality test and non-parametric test using the Wilcoxon Signed Rank Test with the following results:

Normality Test Results – Kolmogorov Smirnov

Table 1. Normality Test Results – Kolmogorov Smirnov

Description	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Cadre Knowledge (Pretest)	.254	22	.001
Cadre Knowledge (Posttest)	.255	22	.001
Cadre Attitude (Pretest)	.211	22	.012
Cadre Attitude (Posttest)	.327	22	.000

Source: Primary data processed, 2025

Based on the normality test results, the Knowledge and Attitude values of the cadres obtained p-values for all variables < 0.05 for both pre-test and post-test. Therefore, it is concluded that the data are not normally distributed. If a parametric test cannot be used, then a non-parametric test, specifically the Wilcoxon Signed-Rank Test, will be used. Here is the explanation:

The Effect of Training Effectiveness Using Booklets on Cadre Knowledge in Assisting with Feeding Stunted Toddlers Aged 12 – 59 Months

Table 2. The effect of training using booklets on cadre knowledge

Variable	N	Mean	P Value
Knowledge Pretest	22	8.91	0.000
Knowledge Posttest	22	10.05	

Source: Primary data processed, 2025

The research results show a p-value = 0.000 or $p < 0.05$, meaning the hypothesis is accepted. This proves that there is a significant difference between the pre-test and post-test values of cadre knowledge in assisting with feeding stunted toddlers aged 12 – 59 months.

The Effect of Training Effectiveness Using Booklets on Cadre Attitude in Assisting with Feeding Stunted Toddlers Aged 12 – 59 Months

Table 3. The effect of training using booklets on cadre attitude

Variable	N	Mean	P Value
Attitude <i>Pretest</i>	22	7.27	0,000
Attitude <i>Posttest</i>	22	8.77	

Source: Primary data processed, 2025

The research results show a p-value = 0.000 or $p < 0.05$, meaning the hypothesis is accepted. This proves that there is a significant difference between the pre-test and post-test values of cadre attitude in assisting with feeding stunted toddlers aged 12 – 59 months.

Discussion

Based on the results of the study, data obtained from 22 respondents, who are Posyandu Satelit cadres at Puskesmas Lamper Tengah, showed that the youngest cadre was 26 years old, the oldest was 62 years old, with an average age of 43 years. This indicates that the majority of the Posyandu Satelit cadres are in a mature age range, suggesting they are in a productive phase with valuable experience. In terms of education, most respondents had completed high school (16 individuals or 72.7%), while 6 respondents (27.3%) held a bachelor's degree. This implies that despite most cadres having a mid-level formal education, they remain highly concerned and actively involved in providing community health services.

Knowledge Level of Posyandu Satelit Cadres

Univariate analysis of the cadres' knowledge level before (pre-test) and after (post-test) the booklet training revealed an increase in knowledge among respondents after the intervention with the booklet "Feeding Stunted Toddlers Aged 12–59 Months." Prior to the training, 16 respondents (72.7%) had good knowledge, while 6 respondents (27.3%) were in the poor knowledge category. Post-training, the number of cadres with good knowledge increased to 19 (86.4%), while only 3 respondents (13.6%) remained in the poor category. This demonstrates that the intervention effectively improved the cadres' knowledge, as evidenced by the significant shift from poor to good knowledge levels. In the pre-test, the questions with the highest correct answers were PK.5 (Weight is an indicator of a child's growth), PK.6 (Child growth can be monitored using a growth chart), PK.9 (Early stimulation should begin when the child enters elementary school), and PK.11 (Nutrition significantly affects brain development), all answered "Yes" by 100% of the respondents. After the post-test, all 22 respondents (100%) correctly answered key questions such as PK.1 (Toddlers are children aged 0–59 months), PK.2 (Growth includes a child's ability to speak), PK.3 (Gross motor development includes walking and running), PK.5, PK.6, PK.9, and PK.10 (Child growth and development can be monitored at the Posyandu), indicating that the booklet training significantly strengthened their understanding.

Attitude Level of Posyandu Satelit Cadres

Univariate analysis of the cadres' attitude level before (pre-test) and after (post-test) booklet training showed a significant improvement. Before training, only 5 respondents (22.7%) were categorized as having a good attitude, while 17 respondents (77.3%) were in the poor category. After the training, 15 respondents (68.2%) were classified as having a good

attitude, and only 7 respondents (31.8%) remained in the poor category. This indicates that the intervention was effective in improving the attitudes of cadres, marked by the considerable shift from poor to good attitude levels. In the pre-test, PK.4 (Stunting can reduce cognitive ability) had the highest affirmative response, with 21 respondents (95.5%) answering “Yes,” indicating partial awareness. However, post-test results revealed 100% affirmative responses to key questions, including PK.2 (Nutritional deficiencies can cause stunting), PK.3 (Stunting is determined by height-for-age), PK.4, PK.6 (The first 1,000 days of life influence a child’s nutritional status), PK.7 (The first 1,000 days span from pregnancy to age two), and PK.10 (Supplementary feeding should match the toddler’s age and needs). This shows the training successfully built stronger awareness and positive attitudes toward stunting prevention and management.

Effectiveness of Booklet Training on Knowledge

The results of this study regarding the effectiveness of training using booklets on cadre knowledge in supporting feeding practices for stunted toddlers aged 12–59 months show a Sig. (2-tailed) value of 0.000 or $p < 0.05$, meaning the result is accepted. This indicates a significant difference between pre-test and post-test knowledge levels, proving that the improvement was due to the intervention and not by chance. The booklet served as a practical learning tool, presenting systematic, concise, and easy-to-understand information, which helped cadres absorb the material effectively. Moreover, printed media like booklets allow cadres to review the content repeatedly, reinforcing memory and understanding. Thus, training with booklet support is proven to enhance knowledge significantly.

Effectiveness of Booklet Training on Attitude

The analysis of the booklet training’s effectiveness on the attitudes of cadres toward feeding stunted toddlers aged 12–59 months also showed a Sig. (2-tailed) value of 0.000 or $p < 0.05$, confirming a significant difference between pre-test and post-test attitude scores. This suggests the training effectively shaped or reinforced positive attitudes regarding the importance of their role in preventing and managing stunting. The booklet’s structured and practical content helped build better awareness, changing perceptions and fostering stronger motivation among cadres to fulfill their roles. Understanding the critical impact of stunting on a child’s future has made the cadres more committed to implementing appropriate feeding strategies.

Supporting Research

The findings of this study align with previous research by Nuhan et al. (2023) and Ajman et al. (2021), which also demonstrated significant differences in knowledge scores before and after training interventions using booklets. Similarly, Hanifah (2023) and Yustiar et al. (2022) found that such training approaches effectively improved attitudes among health workers and community cadres in stunting prevention efforts.

CONCLUSION

Based on the discussion above, several conclusions can be drawn as follows: The characteristics of respondents based on age show that the youngest *Posyandu Satelit* cadre

at *Puskesmas* Lamper Tengah is 26 years old, and the oldest is 62 years old, with an average age of 43 years, indicating that the majority of cadres are in a productive age range. In terms of education, most respondents have a high school education, with 16 people (72.7%) holding a high school diploma and 6 people (27.3%) holding a bachelor's degree, which shows that despite having mostly mid-level formal education, they remain committed and actively involved in community health services. The pre-test and post-test results of knowledge levels indicate an improvement after the intervention using the booklet "*Feeding Stunted Toddlers Aged 12–59 Months*." Before training, 16 respondents (72.7%) were in the good knowledge category, while 6 (27.3%) were in the poor category. After training, 19 respondents (86.4%) moved into the good category, while only 3 (13.6%) remained in the poor category, demonstrating the training's effectiveness. Similarly, the pre-test and post-test results of attitude levels show a significant improvement, with 5 respondents (22.7%) categorized as having good attitudes before training compared to 15 respondents (68.2%) after training, while the poor category decreased from 17 respondents (77.3%) to 7 respondents (31.8%). These findings confirm that the intervention using the booklet was effective in significantly improving both the knowledge and attitudes of the cadres regarding feeding stunted toddlers aged 12–59 months.

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