
The Effect Of Toddler Mothers' Classes On Mothers' Attitudes In Providing Complementary Feeding (Mpsi) To Infants Aged 5–6 Months In The Working Area Of Rongga Health Center In 2025

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Abstract

Stunting remains a public health problem in Indonesia, including in the working area of Rongga Community Health Center. One of the contributing factors to stunting is the inappropriate provision of complementary feeding (MP-ASI). The "Mother and Toddler Class" is an educational program designed to improve mothers' attitudes toward MP-ASI provision. This study aimed to determine the effect of the Mother and Toddler Class on mothers' attitudes in providing MP-ASI to infants aged 5–6 months in the Rongga Community Health Center working area in 2025. This research used a pre-experimental design with a one-group pretest-posttest approach. The study sample consisted of mothers with infants aged 5–6 months, selected using stratified random sampling with a lottery method. Data were collected through attitude questionnaires administered before and after the intervention. Data analysis was performed using the McNemar test. The results showed that the average attitude score of mothers increased after participating in the Mother and Toddler Class. Statistical analysis indicated a p -value < 0.05 , meaning there was a significant difference between mothers' attitudes before and after attending the class. The Mother and Toddler Class had a significant effect on improving mothers' attitudes in providing MP-ASI to infants aged 5–6 months. This program should be conducted routinely to support stunting prevention through improved complementary feeding practices.

Keywords: *Mother and Toddler Class, Mothers' Attitudes, MP-ASI, Infants, Stunting.*

INTRODUCTION

Children are a highly valuable resource for the progress of a nation. Disruptions in the child growth process can lead to high morbidity throughout their lives, exacerbate intergenerational poverty in the long term, and hinder national development. Therefore, creating a superior generation from an early age is crucial, given the critical role of children in ensuring the continuity of the nation (Permatasari et al., 2022).

According to the World Health Organization (WHO, 2024), stunting is a condition in which an individual's height is classified as short or very short for their age, defined as less than -2 standard deviations (SD) on the WHO growth curve. This condition is caused by irreversible factors, including inadequate nutritional intake and/or repeated or chronic infections during the First 1000 Days of Life (HPK). Based on Ministry of Health Regulation No. 2 of 2020 concerning Child Anthropometric Standards, stunting categorization is determined using the Length-for-Age or Height-for-Age Index (PB/U or TB/U) for children aged 0 to 60 months, as outlined in paragraph (1) letter b.

Based on data (WHO, 2024), the global prevalence of stunting in 2022 was estimated at 22.3% among children under five years old. In 2024, it was reported that stunting prevalence in Indonesia remained relatively high. The stunting rate reached 24.4% in 2021, then decreased to 21.6% in 2022, and further declined to 21.5% in 2023 (Kemenkes, 2024). However, these figures have not yet met the RPJMN target, which sets the stunting prevalence in Indonesia at 14% by 2024.

According to the Indonesian Nutritional Status Survey (SSGI, 2022), the three provinces with the highest stunting prevalence in Indonesia were West Sulawesi at 35.0%, Papua at 34.6%, and West Nusa Tenggara at 32.7%. According to the same survey (SSGI, 2022), stunting prevalence in West Java was 20.2%. The regions with the highest stunting prevalence in West Java were Sumedang

Regency at 27.6%, followed by Sukabumi Regency at 27.5%. Based on data, West Bandung Regency ranked third with a prevalence of 27.3%.

In 2023, stunting prevalence in West Bandung Regency only decreased by 2.2%. Based on the Indonesian Health Survey (SKI, 2023), the stunting prevalence in West Bandung decreased from 27.3% in 2022 to 25.1% in 2023. In other words, approximately 25 out of every 100 toddlers in West Bandung are at risk of experiencing stunting.

The problem of stunting in developing countries such as Indonesia often occurs due to various factors, which can be categorized into direct and indirect causes. Indirect causes of stunting include child-rearing practices, socioeconomic factors, and environmental sanitation conditions. Meanwhile, direct causes of stunting can arise from infections in children and inadequate nutritional intake, as malnourished toddlers are more susceptible to illness.

Among the various factors contributing to stunting, inappropriate complementary feeding (MP-ASI) is a critical issue that requires serious attention. According to research (Sugiyanto and Sumarlan, 2021), energy intake significantly influences stunting in toddlers aged 25 to 60 months. Several contributing factors to stunting include delayed or absent early breastfeeding initiation, cessation of breastfeeding before six months, insufficient breastfeeding frequency, introduction of MP-ASI before six months or after 12 months, and providing food that is neither varied nor age-appropriate in texture.

One of the regions in West Bandung Regency facing stunting issues is the Rongga Community Health Center. According to data from the West Bandung District Health Office, there were 563 stunting cases among toddlers in 2024, with one toddler classified as short and 562 as very short. Based on a preliminary study conducted on February 17, 2025, Rongga Community Health Center reported that in December 2024, there were 112 stunted toddlers, 118 wasting cases, and 203 underweight toddlers.

A critical finding from the preliminary study revealed that most toddlers with nutritional issues experienced two improper feeding practices. First, many toddlers were given MP-ASI before six months of age, which adversely affects their nutritional status because the infant digestive system is not yet prepared for solid food. Second, the practice of providing instant foods such as packaged baby porridge, baby biscuits, and fast-food products became the primary choice for mothers. Although convenient and easy to prepare, these instant foods generally have incomplete nutritional content, are high in sugar and salt, and low in essential micronutrients such as iron, zinc, and vitamins needed to prevent stunting. These two improper MP-ASI practices are the main indicators directly contributing to the high stunting prevalence in the Rongga Community Health Center working area.

Inappropriate MP-ASI provision, both in terms of timing and food quality, is strongly associated with stunting in toddlers aged 24 to 59 months. Introducing MP-ASI at an incorrect time can significantly relate to stunting. Early introduction of solid food directly affects toddlers' health, as they are at risk of nutritional disorders impacting growth and development. Infants fed solid foods too early are six times more likely to experience obesity at age three due to the inability of intestinal cells to properly process food.

Beyond timing issues, the quality of MP-ASI also poses a serious concern. The use of instant foods as the main complementary feeding is often chosen by mothers due to ease of preparation, affordability, and limited time for fresh food preparation. However, processed instant foods reduce natural nutrient content, contain preservatives and artificial coloring, and cannot meet the complex nutritional needs required during the First 1000 Days of Life. Reliance on instant foods as the primary nutrient source can cause malnutrition in toddlers, impacting their physical and mental growth, hindering learning achievement, lowering immunity, reducing healthy lifespan, and increasing the risk of disability, morbidity, and mortality.

Stunting prevention and management involve multiple sectors, not only the Ministry of Health but also the central and local governments, as well as families. Several measures can be taken, including specialized nutritional therapy and sensitive interventions, with the health sector focusing on specialized diets for pregnant women and toddlers, especially within the first 1000 days of life. Supplementary feeding programs aim to prevent protein-energy deficiencies, iron deficiency, folate, iodine deficiencies, and address helminthiasis and malaria. Other efforts include providing clean water, environmental sanitation, food fortification, access to healthcare services, family planning, health insurance for the poor, safe childbirth, as well as parenting education and early childhood development. All these measures are part of the efforts to prevent and address stunting (Hadina et al., 2022).

Considering the importance of proper and timely MP-ASI practices in preventing stunting, Communication, Information, and Education (KIE) becomes a key driver of behavioral change among mothers. Effective KIE must include understanding the appropriate time to start MP-ASI, the risks of early complementary feeding, the importance of fresh and balanced home-cooked food, and the dangers of relying on low-nutrient instant foods. This requires strong collaboration between health workers and parents, particularly mothers, to improve their attitudes and practices regarding proper MP-ASI provision, aiming to prevent stunting.

Based on this phenomenon, the researcher is interested in conducting a study entitled “The Effect of Infant Mothers’ Class on Mothers’ Attitudes in Providing MP-ASI to Infants Aged 5–6 Months in the Rongga Community Health Center Working Area in 2025.”

RESEARCH METHODS

Study Design

This study employed a pre-experimental design involving a single group that was tested before and after the intervention, using a one-group pretest-posttest approach. The mothers’ attitudes toward the provision of complementary feeding (MP-ASI) were assessed prior to the intervention (pretest) and following the intervention (posttest). Only one group received the intervention, with no comparison group. The effectiveness of the treatment was evaluated by comparing pretest and posttest results, providing insight into changes in mothers’ attitudes after participating in the Infant Mothers’ Class.

Conceptual Framework

The conceptual framework illustrates the relationship between the independent and dependent variables measured in this study. The independent variable is the Infant Mothers’ Class intervention, while the dependent variable is the mothers’ attitude toward providing MP-ASI. This framework helps clarify how the intervention is expected to influence mothers’ attitudes and guides the data collection and analysis process.

Research Variables

The independent variable in this study was the Infant Mothers’ Class, which served as the treatment intended to influence participants’ attitudes. The dependent variable was the mothers’ attitude toward providing MP-ASI, measured both before and after the intervention. These variables were operationalized to ensure measurable, observable, and valid assessment of changes resulting from the intervention.

Operational Definitions of Variables

Operational definitions specify how variables are measured and observed. Mothers’ attitudes before and after participating in the Infant Mothers’ Class were assessed using a structured questionnaire. Attitudes were categorized as positive (scores 50–80) or negative (scores 20–49) on an ordinal scale. The questionnaire included indicators of opinion and behavior regarding MP-ASI

provision, administered before the intervention and after completing three sessions of the Infant Mothers' Class over two weeks.

Population and Sample

The population consisted of mothers with infants aged 5–6 months in the working area of Rongga Community Health Center in June 2025, totaling 56 infants across eight villages. The sample was determined using stratified random sampling with a limited population formula, resulting in 36 mothers proportionally selected from each village. Inclusion criteria included mothers of infants aged 5–6 months residing in the study area, willing to participate, and able to read and write. Exclusion criteria included infants with congenital abnormalities or chronic diseases, and mothers with mental or emotional conditions that might affect comprehension. Dropouts were defined as participants who could not be contacted, withdrew, or did not complete the posttest evaluation.

Data Collection Techniques and Procedures

Primary data were collected using a questionnaire measuring mothers' attitudes toward MP-ASI before and after participating in the Infant Mothers' Class. The instrument was validated using the Pearson correlation coefficient and tested for reliability with Cronbach's alpha, yielding a strong reliability coefficient of 0.922. The research procedure included planning, preparation, pretest, intervention, posttest, and data analysis. The Infant Mothers' Class was delivered over two weeks with three sessions per group, using learning modules, demonstrations, and interactive discussions. Facilitators coordinated with village midwives to invite participants, ensure attendance, and supervise the sessions.

Data Processing and Analysis

Data were processed systematically through collection, editing, coding, and tabulation to ensure accuracy. Univariate analysis described the characteristics of mothers' attitudes before and after the intervention using frequencies and percentages. Bivariate analysis was conducted using the McNemar test to examine differences in attitudes pre- and post-intervention, with statistical significance determined at $p < 0.05$. Data normality was assessed using the Shapiro-Wilk test, and SPSS 27 software was employed for all statistical analyses.

Research Ethics

The study adhered to ethical principles including respect for privacy, confidentiality, and safety of participants. Informed consent was obtained from all participants, and data were processed in aggregate without identifying individuals. Participants received compensation in the form of learning modules, healthy snacks, and small door prizes. Researchers ensured that participation was voluntary and that participants could withdraw at any time without penalty.

Time and Place of Study

The study was conducted in June 2025, with initial data collection beginning in May 2025. The Infant Mothers' Class took place across all eight villages within the Rongga Community Health Center's working area, including Bojongkoneng, Bojongsalam, Cicadas, Cibedug, Cibitung, Cinengah, Sukamanah, and Sukaresmi.

RESULTS AND DISCUSSION

Univariate Analysis

Table 1. Mothers' Attitudes in Providing Complementary Feeding (MP-ASI) to Infants Aged 5–6 Months Before Attending the Infant Mothers' Class in the Rongga Community Health Center Working Area, 2025

Variable	Category	n	%
Mothers' attitudes before attending Infant Mothers' Class	Positive	30	73%
	Negative	11	27%
Total		41	100%

Based on Table 1, before attending the Infant Mothers' Class in the Rongga Community Health Center working area in 2025, 30 (73%) respondents exhibited a positive attitude, while 11 (27%) respondents showed a negative attitude towards providing MP-ASI to infants aged 5–6 months.

Table 2. Mothers' Attitudes in Providing Complementary Feeding (MP-ASI) to Infants Aged 5–6 Months After Attending the Infant Mothers' Class in the Rongga Community Health Center Working Area, 2025

Variable	Category	N	%
Mothers' attitudes after attending Infant Mothers' Class	Positive	41	100%
	Negative	0	0
Total		41	100%

Based on Table 2, after attending the Infant Mothers' Class in the Rongga Community Health Center working area in 2025, all respondents (100%) demonstrated a positive attitude towards providing MP-ASI to infants aged 5–6 months. This reflects an attitude change in 11 (27%) respondents who had previously exhibited a negative attitude, which became positive after attending the program.

Bivariate Analysis

Table 3. Mothers' Attitudes in Providing Complementary Feeding (MP-ASI) to Infants Aged 5–6 Months Before and After Attending the Infant Mothers' Class in Rongga, 2025

Before	After	Total
Mothers with a positive attitude in providing complementary feeding (MP-ASI)	Mothers with a negative attitude in providing complementary feeding (MP-ASI)	
Mothers with a positive attitude in providing complementary feeding (MP-ASI)	30	0
Mothers with a negative attitude in providing complementary feeding (MP-ASI)	11	0
Jumlah	41	0

Based on the McNemar test results in Table 3, there was a significant change in mothers' attitudes before and after attending the Infant Mothers' Class. A total of 11 (27%) respondents improved from a negative to a positive attitude, while 30 (73%) respondents maintained a positive attitude. No respondents experienced a decrease in attitude. The significance value obtained was $p <$

0.001, indicating that the Infant Mothers' Class had a significant effect on improving mothers' attitudes in providing MP-ASI to infants aged 5–6 months.

Discussion

Mothers' Attitudes in Providing MP-ASI to Infants Aged 5–6 Months Before Attending the Infant Mothers' Class in the Rongga Community Health Center Working Area, 2025

Based on Table 1, before attending the Infant Mothers' Class in the Rongga Community Health Center working area in 2025, 30 (73%) respondents demonstrated a positive attitude, while 11 (27%) respondents showed a negative attitude towards providing MP-ASI to infants aged 5–6 months.

Based on the pretest data conducted in the Rongga Community Health Center working area, out of a total of 41 respondents, 11 (27%) exhibited a negative attitude towards providing complementary feeding (MP-ASI), while 30 (73%) showed a positive attitude. This finding indicates that although the majority of mothers already had a good attitude toward providing MP-ASI to infants aged 5–6 months, around a quarter of respondents still lacked an appropriate understanding of proper complementary feeding practices. The negative attitude is likely due to insufficient knowledge or information about the correct time to start MP-ASI, the type of food suitable for infants, and the correct method of preparation and administration.

The negative attitude demonstrated by 11 (27%) respondents is likely caused by limited understanding regarding the appropriate time to start MP-ASI, the type of food suitable for the infant's age, and safe and hygienic serving methods. Other factors that may influence this include limited access to information, lower education levels, and lack of experience, particularly for first-time mothers.

Meanwhile, the majority of respondents who exhibited a positive attitude generally had a basic understanding of the importance of MP-ASI in supporting child growth and development. They tended to know that MP-ASI should ideally be introduced at six months of age, with food choices containing balanced nutrition and prepared in a clean and safe manner.

However, despite being categorized as having a positive attitude, not all mothers fully understood the correct practice of providing MP-ASI. A good attitude does not necessarily align with proper actions. Aspects such as feeding frequency, menu variation, and appropriate portion sizes still require emphasis in further education. This study is in line with (Sadriatanur, 2020), which reported that before intervention, 55.1% of mothers exhibited less supportive attitudes toward providing MP-ASI.

Mothers' Attitudes in Providing MP-ASI to Infants Aged 5–6 Months After Attending the Infant Mothers' Class in the Rongga Community Health Center Working Area, 2025

Based on Table 2, after attending the Infant Mothers' Class in the Rongga Community Health Center working area in 2025, all respondents (100%) demonstrated a positive attitude towards providing MP-ASI to infants aged 5–6 months. This reflects a change in attitude among 11 (27%) respondents who had previously exhibited a negative attitude.

Posttest results indicated a significant increase in mothers' attitudes toward providing MP-ASI after attending the Infant Mothers' Class in the Rongga Community Health Center working area. All 41 respondents (100%) showed a positive attitude following the intervention. This demonstrates an improvement compared to the pre-class condition. The educational program lasted two weeks with three sessions and was proven effective in changing mothers' attitudes toward supporting proper MP-ASI provision.

The implementation of the Infant Mothers' Class was effective in delivering relevant and easily understandable information regarding the importance of providing MP-ASI according to the infant's age and needs. Through material delivery by health workers, mothers gained in-depth understanding about appropriate food types, recommended timing for MP-ASI, and hygienic preparation and storage to maintain food quality.

Positive changes in mothers' attitudes also demonstrate the success of the counseling approach used in this program. Methods such as interactive discussions, MP-ASI simulation practices, and peer-sharing sessions effectively increased participant engagement. This approach not only expanded knowledge but also strengthened mothers' awareness and confidence in implementing healthy and standard-compliant MP-ASI practices.

Furthermore, the results showed that mothers who previously had a negative attitude experienced a significant change after receiving targeted education. This is an important indicator that effective counseling can change mothers' perspectives regarding MP-ASI, particularly for those who previously lacked sufficient knowledge.

This attitude change is crucial as it represents an initial stage toward healthier behavioral changes. When attitudes shift toward the positive, it is highly likely to be followed by improved practices in daily life, especially in providing nutritious food to infants. The Infant Mothers' Class functions not only as an educational medium but also as a strategic intervention in improving parenting quality and child nutrition through enhancing mothers' attitudes and behaviors in providing MP-ASI.

This study is in line with (Sadriatunur, 2020), which found that after intervention, the number of mothers with a supportive attitude category increased to 77.8%. This means that after receiving intervention on complementary feeding, the number of mothers in the supportive attitude category increased by 22.7%.

Mothers' Attitudes in Providing MP-ASI to Infants Aged 5–6 Months Before and After Attending the Infant Mothers' Class in the Rongga Community Health Center Working Area, 2025

Based on the McNemar test results in Table 3, there was a significant change in mothers' attitudes before and after attending the Infant Mothers' Class. A total of 11 (27%) respondents improved from a negative to a positive attitude, while 30 (73%) respondents maintained a positive attitude. No respondents experienced a decrease in attitude. The significance value obtained was $p < 0.001$, indicating that the Infant Mothers' Class had a significant effect on improving mothers' attitudes in providing MP-ASI to infants aged 5–6 months.

The change in attitude from 11 (27%) mothers who previously had a negative attitude to 0% after the intervention shows that the education provided through the Infant Mothers' Class was highly effective in changing mothers' perceptions comprehensively. This change reflects not only the success of the learning approach used but also emphasizes the importance of direct involvement of health workers in delivering comprehensive explanations regarding proper MP-ASI practices.

From both a statistical and practical implementation perspective, these results serve as strong evidence that the Infant Mothers' Class is a highly promising intervention strategy to improve community nutrition behavior, especially among mothers with young children. This program is highly relevant to be an integral part of health promotion and nutrition improvement activities at the community health center level or broader regions.

Beyond individual attitude change, the existence of this class also has a long-term impact in building a supportive social environment. The Infant Mothers' Class creates a space for mothers to share experiences, discuss, and provide mutual support in implementing parenting and MP-ASI practices in accordance with health standards.

The sustained effect of this program has the potential to strengthen a positive culture in providing MP-ASI. When proper MP-ASI practices become a collective habit, the quality of infant nutrition intake will improve, ultimately reducing the risk of stunting, malnutrition, and other growth and development disorders. Therefore, the Infant Mothers' Class is not only effective as a knowledge-enhancing medium but also as an empowerment strategy that can drive sustainable changes in community nutrition behavior.

Based on research (Sadriatanur, 2020), it was found that there is a significant effect of nutritional intervention on mothers' attitudes in providing complementary feeding. This was proven through a p-value of 0.0001 and a calculated t-value of 4.893, showing that nutritional intervention can significantly improve mothers' attitudes toward MP-ASI provision. This finding reinforces the importance of implementing nutrition education, such as the Infant Mothers' Class, as an effective intervention in shaping proper complementary feeding behavior.

CONCLUSION

Based on the results of the study on the effect of the Infant Mothers' Class on mothers' attitudes toward complementary feeding (MP-ASI) for infants aged 5–6 months in the Rongga Community Health Center working area in 2025, several conclusions can be drawn. Prior to the implementation of the Infant Mothers' Class, the majority of respondents, 30 mothers (73%), exhibited positive attitudes toward MP-ASI, while the remaining 11 mothers (27%) displayed negative attitudes. Following participation in the Infant Mothers' Class, all respondents (100%) demonstrated positive attitudes, indicating a shift in attitude among the 11 mothers who had initially held negative perceptions. These findings highlight the significant impact of the Infant Mothers' Class in enhancing mothers' attitudes toward proper MP-ASI provision. The intervention appears to be an effective strategic measure for promoting optimal infant feeding practices and may contribute to stunting prevention, particularly within the Rongga Community Health Center's service area.

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