



## WOMEN'S EMPOWERMENT IN THE FORM OF PROVIDING EDUCATION ABOUT COMPLEMENTARY FEEDING AS AN EFFORT TO PREVENT STUNTING

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### Abstract

*Stunting* is a failure to grow (*growth faltering*) in children under five due to chronic malnutrition, especially in the first 1,000 days of life. *Stunting* can affect brain growth and development. Child *stunting* also increases the risk of chronic diseases in adulthood (Muliani, 2022). Based on Indonesia's nutritional status survey, the prevalence *is stunting* in Indonesia in 2022 decreased to 21.6% (Kemenkes RI, 2022). Prevalence *Stunting* in Cirebon Regency is as much as 18.6%, and the target in 2024 is 14% (Cirebon Regency Health Office, 2024). One factor that affects children's nutritional status is nutritional intake, including the provision of adequate complementary foods. Complementary foods are given to children after the age of 6 months to 2 years, along with continued breastfeeding. This study aims to improve the knowledge and skills of mothers and families in prevention efforts by providing adequate complementary foods. The data collection method used a case study approach through maternal and family empowerment, providing education about complementary foods in 6-month-old infants, which aims to prevent *stunting*. The results are an increase in maternal knowledge and awareness about stunting, and baby mothers can practice making complementary feeding correctly, affecting babies' growth and development.

**Keywords :** Women's Empowerment, Stunting, Education, Complementary Feeding

### INTRODUCTION

Children need adequate nutritional intake to support optimal growth and development. The growth and development phase is critical for a child to reach his full potential when he grows up. The First 1000 Days of Life, which is a critical and crucial period for children, is a period where nutritional interventions must be carried out appropriately and continuously in order to prevent malnutrition in the form of short nutrition (*stunting*) or undernutrition (*wasting*) that interfere with children's development (Widyaningrum, Matahari dan Sulistiawan, 2021).

*Stunting* is a condition of failure to grow (*growth faltering*) in children under five due to chronic malnutrition, especially in the first 1,000 days of life. *Stunting* can affect brain growth and

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development. Child *stunting* also has a higher risk of suffering from non-communicable diseases in adulthood (Muliani, 2022). *Stunting* Specifically, it can start from the mother's condition before pregnancy, during pregnancy, and even after pregnancy, which will determine the growth of the fetus. Malnourished pregnant women will be at risk of giving birth to babies with low birth weight, and this is one of the causes of *stunting* in children (Claudia et al., 2022). A child is declared *stunting* if the body length index is compared to age or height is compared to age with the limit (*z-score*) less than -2SD (Claudia et al., 2022).

According to WHO (2023), Preventing *stunting* children in Southeast Asia still occupies the second position after Africa, which is 49.8 million people. Based on the 2022 Indonesia Nutrition Status Study conducted by the Health Development Policy Agency of the Ministry of Health, the prevalence of *stunting* in Indonesia in 2022 decreased to 21.6%. Meanwhile, based on growth monitoring activities in 2022 reported through electronic-Community-Based Nutrition Recording and Reporting, the percentage of babies under two years old with meager weight was 1.1%, and clowns were underweight by 5.6%. The province with the highest percentage of meager and low weight is West Papua Province, while the lowest is South Sumatra Province. In addition, toddlers with meager weight were 1.1% and underweight by 6.2%. The province with the highest percentage is East Nusa Tenggara, while the lowest is South Sumatra Province. Based on Indonesia's nutritional status survey, the prevalence of *stunting* (Kemenkes RI, 2022). The prevalence of *stunting* in Cirebon Regency is 18.6%, and the target in 2024 is 14%. (Cirebon Regency Health Office, 2024).

The Government of Indonesia has issued a National Strategy to accelerate *stunting* reduction as stated in Presidential Regulation of the Republic of Indonesia No. 72 of 2001 concerning the Acceleration of *Stunting* Reduction. In order to achieve the national target of *stunting prevalence*, set an intermediate target of 14% by 2024 with the target group of adolescents, brides-to-be, pregnant women, breastfeeding mothers, and children aged 0-59 months through the implementation of 5 pillars in the National Strategy for the Acceleration of *Stunting Reduction* (Kemenkes RI, 2023).

*Stunting* can affect the growth and development of children from childhood to adulthood. *Stunting* can disrupt brain development, body metabolism, and physical growth in the short term. As children get older, *stunting* can cause various kinds of problems, such as children's intelligence being below average so that their learning achievement cannot be maximized, the child's immune system is not sound so that children get sick quickly, children will be at higher risk of suffering from diabetes mellitus, heart disease, stroke, and cancer. Adverse impact *stunting*, which will affect old age, makes this condition very important; good nutrition and a healthy body are the keys to preventing *stunting* (Kemenkes RI, 2022).

One factor affecting children's nutritional status is nutritional intake, including the provision of Complementary Feeding. Complementary feeding are given to children after the age of 6 months to 2 years, along with continued breastfeeding. An adequate complementary food is a complementary food that can meet the nutritional needs of children. In families with high socio-economic status, adequate complementary feeding administration tends to be more accessible and can be fulfilled. However, in families with low socio-economic conditions, problems can arise due to food shortages in households, which continue to the low quantity and quality of complementary feeding given to infants and children (Widyaningrum, Matahari, and Sulistiawan, 2021).

Complementary feeding contain nutrients given to babies or children aged 6-24 months to meet their nutritional needs (Sumardilah and Hastuti, 2018). The introduction and feeding of complementary feeding must be carried out in stages, both in type, portion, frequency, shape, and amount, according to the age and digestive ability of the baby/child. Adequate and quality complementary feeding are essential for children's physical and intellectual development (Muliani, 2022). The purpose of complementary feeding is to complement the nutrients of breast milk that have been reduced, develop the baby's ability to receive a variety of feeding with various flavors and shapes, develop the baby's ability to chew and swallow, and try to adapt to foods that contain high energy levels (Wulandari et al., 2023).

At the age of 6-9 months, babies should be given crushed food three times a day with a dosage of 2-3 full tablespoons each meal and increase slowly; at the age of more than nine months – 12 months, babies should be given soft food three times a day with sufficient doses, interlude feeding are given once a day and continue to introduce the baby or child to a variety of feedingtuffs (Claudia et al., 2022). At the age of more than 12 to 24 months, babies should be given family food three times a day with additional interlude food twice a day and a variety of food ingredients daily. According to Prell and Koletzko (2016), Children need to learn how to eat, try new flavors and textures of food, chew food, move food in their mouths, and swallow it. The principle of complementary breastfeeding is timely, safe, adequate, and given in the right way. In providing complementary breastfeeding, the role of officers is vital because the promotion of complementary breastfeeding is carried out by health workers, namely by telling the right way and time (Khotimah et al., 2023).

The process of empowering women is one of the crucial steps in changing knowledge and skills (Timban, Tangkere dan Lumingkewas, 2020). Women have vast opportunities to participate in knowledge development activities such as mother's classes, participate in formal and non-formal training, join community organizations, participate in professions such as teachers, health workers,

lecturers, and others, and can also play an active role in realizing change movements in various sectors of society (Fitriana, 2016). The quality of women as homemakers need to be improved because the quality of homemakers and the quality of the family have a reciprocal relationship, which means that if the quality of women as housewives is low, the qualities needed by the family, such as affection, religion and ethics, education, economy, culture, and environment will also be low (Waty et al., 2022).

In a preliminary study conducted in the working area of the Kaliwedi Health Center, Cirebon Regency, West Java, Indonesia, the author obtained data on the number of stunted *toddlers*, 300 toddlers out of a total of 1,270 toddlers so that around 23% of toddlers in Kaliwedi District are *stunted*. There have been efforts made by healthcare to support the government's strategy to reduce *stunting* through activities such as Integrated Service Post, providing additional food for toddlers at risk of *stunting*, and organizing classes for mothers under five toddlers. However, public awareness and knowledge that is considered to be still lacking regarding the issue of *stunting* and adequate complementary feeding administration makes the author feel that it is essential to conduct an assessment and empower mothers and families to be able to carry out *stunting* prevention in infants through education about complementary feeding.

## MATERIALS AND METHODS

The data collection method used a descriptive case study approach through participatory empowerment involving mothers and families. The subject of the study was a 6-month-old baby, along with his mother and family. The data collection is done through anamnesis, physical examination, observation, documentation, *pre* and *post-test* (simple assessment), and *24-hour recall*.

The educational intervention was carried out over 16 days through four visits. Anamnesis and physical examination are carried out at the first visit to find out the baby's initial health condition, followed by a *pre-test* to measure the mother's and family's initial knowledge about *stunting* and complementary feeding as well as providing education about complementary feeding in 6-month-old infants to prevent *stunting*. During the second and third visits, a 24-hour recall was carried out through online interviews to evaluate the nutritional adequacy of complementary feeding given to babies. At the same time, the authors also made direct observations on the practice of complementary feeding by mothers. At the fourth visit, anthropometric measurements and evaluation of infant development were carried out using the Developmental Pre-Screening Questionnaire to monitor the intervention's effects on the baby's growth and development. The data from the pre-test and post-test results were analyzed descriptively to identify changes in maternal knowledge. In contrast,

anthropometric and recall data were analyzed to assess nutritional adequacy and infant growth and development.

## RESULTS AND DISCUSSION

The data collection process is carried out at the patient's home by involving the mother and family in accordance with the agreed visit. At the first visit, the results of the subjective and objective data assessment were found that babies are still given breast milk and have started to be given complementary feeding because they have entered the age of 6 months; this is to the recommendations of the World Health Organization (WHO) and UNICEF, children get breast milk starting from the first hour after birth to the age of the first six months of life and continuing until the baby is two years old. The baby is given complementary feeding for six months (Boswell, 2021). Anthropometric measurements were carried out on infants with a body weight of 7700 grams, body length of 65 cm, and head circumference of 42 cm. According to WHO, monitoring can be carried out using a measurement curve based on the results of this data. This is to the theory, according to Kemenkes RI (2019), that early detection of child growth and development is an examination carried out to find abnormalities in growth and development in children, which includes early detection of growth disorders, namely determining the nutritional quality of the child whether he is obese, regular, thin and very thin, short or very short, macrocephaly or microcephaly. In baby A, based on the data of weight measurement based on age, body length based on age, weight based on body length, and head circumference based on age, the results are still above the -2 standard deviation line, which means it is still within the standard limit because the baby will enter the age of 6 months, the mother needs to be educated about complementary feeding. Therefore, on the first visit, the author gave a test to determine mothers' level of understanding about *stunting* and complementary feeding; the results were obtained that mothers had received information about complementary feeding through health workers. The mother can answer three correct and three wrong answers from the six questions. Based on the results *Pre Test* It is known that the mother's knowledge about complementary feeding administration and prevention of *stunting* is still lacking, so it is necessary to intervene in the form of providing education about complementary feeding and prevention of *stunting* and monitoring Children's nutritional status through *Recall* 24 hours of food that the baby consumes through the app *WhatsApp* on the second and third visits.

The results of the data analysis carried out at the fourth visit included that in anthropometric measurements, it was found that the baby experienced an increase in weight of 200 grams and an increase in body length of 1 cm in 3 weeks, with a KPSP value 10. This is to the theory that generally, 6-month-old babies gain about 85-140 grams per week, and the body length of 6-month-old babies increases by 1-2 cm from the previous month, which ranges from 61.5 to

70 cm for girls and 63.5-72 cm for boys (Kolopaking et al., 2019). There is an increase in the number of correct answers on the sheet *post-test* given to mothers and families, with six correct answers.

*Table 1: Percentage of pre and post-test answers*

	Number of correct answers	Percentage of correct answers
Pre Test	3	50%
Post Test	6	100%

Based on the results of the post-test, it can be seen that there is an increase in maternal knowledge about complementary feeding and stunting prevention after being given education and intervention for 16 days. In addition, the results of the 24-hour recall showed increased maternal skills in making complementary feeding with a crushed texture by the recommendations. Also, they showed that there were efforts to provide nutritious complementary feeding that increased the baby's weight and body length.



*Figure 1: Implementation of research activities and education*



*Figure 2: 24-hour recall of food consumed by babies through WhatsApp media*

## CONCLUSION

Based on the results of empowerment and discussion that have been described, several findings need to be highlighted, including:

1. The increase in maternal knowledge about complementary feeding and *stunting*, as seen from the pre-test results of maternal knowledge about complementary feeding and *stunting prevention*, is relatively low, with the average mother only able to answer 50% of the questions correctly. After

being given education and empowerment for 16 days, the post-test results showed a significant increase where mothers could answer questions up to 100% correctly. This shows increased mothers' understanding of the importance of complementary feeding and stunting prevention.

2. Changes in children's nutritional status during monitoring showed positive results. It is characterized by an increase in weight in babies by 200 grams and an increase in body length by 1 cm in 16 days. This shows a positive response to the complementary feeding intervention given by mothers after receiving education.
3. Practical skills of mothers in making complementary feeding In addition to increasing knowledge, this study also measures the practical skills of mothers in making complementary feeding. Based on direct observation and recall during the research process, it was found that mothers could practice making complementary feeding through the education delivered.
4. Impact on family awareness: The study also found increased family awareness of the importance of adequate complementary feeding. The family is more involved in parenting and better supports the mother in preparing complementary feeding.

So from the results of this study, it can be concluded that the empowerment of mothers and families through the provision of education about complementary feeding can increase the knowledge and skills of mothers and families regarding the provision of complementary feeding and the prevention of *stunting* which affects the growth and development of babies.

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