

# Efforts to Improve Health Cadres' Knowledge about Maternal Education Concerning Parental Feeding as a Stunting Prevention

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**Abstract** Stunting is a condition that results from chronic malnutrition during childhood in low- and middle-income countries. The national prevalence of stunting in children under 5 years is 9 million children out of 24.5 million children. Factors that contribute to stunting include poor feeding and sanitation practices. The purpose of this community service is to provide education to health cadres in the Jaya Mekar Health Center area, West Bandung, regarding parental feeding practices as an effort to prevent stunting. The community service method is to provide education to health cadres through parental feeding booklets. This community service was carried out involving by 36 cadres in the Jaya Mekar Public Health Center area, Bandung Barat. Pre and post education through questionnaire was given to cadre, who were selected as sample purposive sampling technique to evaluate the benefits of Community Service Program. The result of this education increases the knowledge of cadres significantly (0.019; 0.001) before and after providing education about parental feeding, which becomes a cadre education strategy for mothers on how to give good food to children. Recommendations are needed for further programs to monitor cadres in providing education to mothers.

## 1. INTRODUCTION

The Sustainable Development Goals (SDGs) have one goal, namely zero hunger or zero poverty, including the 2030 international target to reduce stunting and wasting in children under five around the world. Indonesia is the top five countries with the highest prevalence of stunting in Asia-Africa (Ministry of Health, 2016). The national prevalence of stunting in children under 5 years is 9 million out of 24.5 million (Rachmi et al., 2016). This should be the attention of various parties. Hossain et al. (2017) stated that stunting is the most common manifestation caused by chronic malnutrition during childhood in low- and middle-income countries. Factors that contribute to stunting include poor feeding and sanitation practices (Black et al., 2013).

Fundamental factors, may be comprised of economic factors and mother's education, intermediate factors can consist of number of family members, mother's height, mother's age, and number of mother's children, and

proximal factors may include exclusive breastfeeding, age of children and babies with low birth weight (LBW) (Darteh et al., 2014).

The government or health workers can provide interventions according to the factors that influence stunting. Various efforts have been made to date by the Government to deal with stunting in children. One of the stunting prevention programs is the design of specific and sensitive nutrition interventions. In addition, there is also a program from the Province of West Java; they are campaigning "Jabar Movement Towards Zero Stunting 2023", with the hope that in the next five years West Java will be free from stunting cases. One of the districts in West Java with a high prevalence of stunting is West Bandung Regency stunting. The findings of Amalia (2019) regarding providing education to mothers using booklets and videos on parental feeding to prevent stunting have significant results in increasing mothers' knowledge of stunting prevention.

The study stated that with an interesting booklet media,

mothers' understanding could improve more than the video provided. Maternal education is a Health Education intervention given to mothers. The provision of maternal education can involve health cadres in each region. Community health cadres are volunteers selected by and from the community, trained to deal with individual and community health problems, and working in close relationships with health service delivery sites.

Research conducted by [Amanda & Permana \(2020\)](#) regarding the effect of Diabetes Mellitus Gymnastics Health Education on the knowledge of Health Cadres with the results of the study that there was an increase in the knowledge of health cadres about diabetes mellitus exercise in the Wanaraja Health Center area. The provision of education to these cadres uses parental feeding booklets ([Amalia, 2019](#)). It is further expected to be sufficient provision for cadres in providing maternal education, namely Education given to the community, especially to mothers who are pregnant, have children aged 0-24 months related to the practice parental feeding in an effort to prevent stunting in children.

## 2. METHOD

The study was conducted for one week, on the third week of October 2022, in the Work area of Jaya Mekar Health Centre Area, Bandung Barat. This study used a cross-sectional approach. The instrument used in the study was a questionnaire. The population in this study were health cadres of 26 regions, represented by 36 health cadres, and the samples were taken using purposive sampling.

Primary data of this study were collected using a Gutman scale questionnaire. Data were analyzed descriptively and using the Spearman correlation test. The scientific discussion was held to produce recommendations on the emergence of strategic issues, mainly to prevent stunting. The material used to improve knowledge of health cadres was using booklet parental feeding booklets ([Amalia, 2019](#)). The procedure of this study began with a pretest that assessed the knowledge of health cadres regarding stunting prevention with parental feeding. The subsequent events were the education and discussions about parental feeding through the booklet, and the last phase was a posttest that assessed the knowledge of health cadres regarding stunting prevention with parental feeding.

## 3. RESULT AND DISCUSSION

Table 1 shows the distribution of Health Cadre who participate in educational activities. All the participants (100% of them) are female and unemployed. In terms of their educational background, there was a significant variation, with 25 or 69.4% having senior high school education, 5 or 13.90% having junior high school education, 4 or 11.1% were diploma/bachelor graduates, and 2 or 5.6% were elementary school graduates. Regarding their marital status, the majority of the respondents, namely 33 participants (91.7% of them) were married, while 3 participants (8.3% of them) were widows.

Health cadres are the central pillar for improving the

health status of Indonesia's toddler, especially in preventing stunting. Health cadres provide maternal education, especially to pregnant mothers with children aged 0-24 months related to the practice of parental feeding in an effort to prevent stunting in children ([Ministry of Health, 2018](#))

**Table 1 .** Description of the respondents' characteristics

| Characteristics       | f  | %    |
|-----------------------|----|------|
| <b>Gender</b>         |    |      |
| Female                | 36 | 100  |
| <b>Age</b>            |    |      |
| Young (25-44 YO)      | 10 | 28   |
| Middle (45-60 YO)     | 24 | 66   |
| Elderly (61-75 YO)    | 2  | 6    |
| <b>Occupation</b>     |    |      |
| Unemployed            | 36 | 100  |
| <b>Education</b>      |    |      |
| Elementary School     | 2  | 5.6  |
| Junior High School    | 5  | 13.9 |
| Senior High School    | 25 | 69.4 |
| Diploma/Bachelor      | 4  | 11.1 |
| <b>Marital Status</b> |    |      |
| Married               | 33 | 91.7 |
| Single                | 0  | 0    |
| Widow                 | 3  | 8.3  |

**Table 2 .** The test results of the health cadres' knowledge about maternal education of parental feeding

| Knowledge       | Total     |            |
|-----------------|-----------|------------|
|                 | F         | %          |
| <b>Pretest</b>  |           |            |
| Good            | 5         | 13.9       |
| Enough          | 29        | 80.6       |
| Less            | 2         | 5.6        |
| <b>Posttest</b> |           |            |
| Good            | 22        | 61.1       |
| Enough          | 14        | 38.9       |
| Less            | 0         | 0          |
| <b>Total</b>    | <b>36</b> | <b>100</b> |

Health cadres can provide information about the prevention of stunting if they have good knowledge. The results in [Table 2](#) showed that the knowledge of health cadres increased after being given maternal education about parental feeding. This is because there are various factors that can influence, including age, work, education and experience ([Notoatmodjo, 2010](#)). It was found that more than half of the cadres were 45-60 years old as many as 24 people (66%). According to [Darsini et al., \(2019\)](#), the more mature a person's age, the more one's knowledge increases. The more mature the level of maturity and strength a person is, the more mature they think and work.

[Sarkar \(2010\)](#) stated that health education is an activity that aims to provide information to individuals regarding health conditions, illness, and the risk of disease that may occur due to related behavior or lifestyle. In addition, health education is also a form of intervention or effort aimed at behavior, so that behavior is conducive to

health (Notoatmodjo, 2012). This result showed that the knowledge of the health cadres significantly increased. Health cadres are an extension of health.

The health cadres know the various conditions of mothers in the field, so cadres who will provide education to mothers must be equipped with adequate knowledge (Figure 1). Maternal education is a health education intervention given to mothers. The provision of maternal education can involve health cadres in each region. Community health cadres are volunteers selected by and from the community and are trained to handle individual and community health issues and work in very close relationships with places where health services are provided. Research conducted by Amanda & Permana (2020) regarding the effect of health education on diabetes mellitus exercise on the knowledge of health cadres with the results of the study that there was an increase in health cadres' knowledge about diabetes mellitus exercise in the Wanaraja Health Center area. The provision of education to these cadres uses a parental feeding booklet Amalia (2019) and is further expected to be sufficient provision for cadres in providing maternal education, namely education provided to the community, especially to pregnant women, and women with children aged 0-24 months related to practice feeding (parental feeding) in an effort to prevent stunting in children.

The booklet provided in this study is an illustrated print media, with writing and animation adapted to parental feeding material, as seen in Figure 2. The material provided in the booklet has the same content as video media. Booklet media is a medium capable of disseminating information relatively quickly. Its physical form resembles a thin book with complete information, making it easier for the booklet to be carried around. Siddharthan (2016) provided a 28-page booklet that describes the pathophysiology, diagnosis, and management of heart failure. The finding of this research have shown that among as many as 76 respondents (80%), there was an increase in understanding of medical conditions, an increase in knowledge about treatment options, and 78 (83%) an increase in knowledge of preventing health problems. In addition to knowledge, there was also an increase in patient satisfaction with medical treatment from 16% to 79% (n = 73) after the intervention was given. This is because his research states that material presented in booklets is easier to read, knowledge about disease increases, and improves communication with doctors.

The booklet intervention in this study is one of the effective learning media. Another study has also proven that 91% of the respondents were able to understand the material presented and were satisfied with the information provided, and 95% of the respondents recommended booklets to others as a learning tool (Peate et al., 2012). In addition, research by Marfiah & Kurniawati (2017) showed that before receiving nutrition education using booklets, 61.3% of the participants had poor knowledge about complementary foods for breast milk. After receiving nutritional education through booklets, 45.2% of the

participants had sufficient knowledge about complementary foods for breast milk.

The booklets are used to encourage someone's eagerness to know, explore and get a good understanding and provide motivation to do something new (Silalahi, 2018). However, the drawback of booklet media is that most booklets are written with high information content, often requiring complex reasoning or understanding, thus making them less accessible to individuals with lower education or lower literacy (Cronin et al., 2011; Hu & Chen, 2018; Stossel et al., 2012). The implementation of education is carried out using booklet media, namely as many as four booklets. In this study, the first booklet is about the concept of stunting, the second booklet is about parental feeding at the gestational age, the third booklet is about parental feeding at the breastfeeding age, and the fourth booklet is about parental feeding for children aged 6-24 months.

The material provided includes feeding practices (parental feeding) from the gestation period, and breastfeeding to giving complementary foods. According to Saraswati (2011), that booklet media is said to be more able to influence increased knowledge and attitudes compared to visual media such as posters. In addition, booklets are used to encourage someone's desire to know, then explore, and finally get a good understanding and encouragement to do something new (Silalahi, 2018).



Figure 1 . The process of filling the pretest sheet



Figure 2 . Booklet as an educational media

## 4. CONCLUSION

This study was given maternal education to health cadres about parental feeding through the booklet. There was

significantly increased knowledge among the health cadres about how to increase the knowledge of mothers to prevent stunting. The knowledge was conveyed through parental feeding booklets divided into four booklets, namely booklets on stunting, parental feeding for pregnant women, nursing mothers, and children aged 6-24 months regarding complementary foods for breastfeeding. The recommendation for the health center is to make a program to monitor the health cadres to educate mothers on parental feeding through the booklet.

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## CONFLICT OF INTERESTS

The authors declare there is no conflict of interest.

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