The Influence of Assistance with Media Booklet on Maternal Behavior in Feeding Stunting Toddlers (Study in The Working Area of Karangdadap Health Center pekalongan Regency)

Khikmah Wati¹), Apoina Kartini², Mohammad Zen Rahfiludin³

Master Program of Health Promotion; Faculty of Public Health, Diponegoro University

ARTICLE INFO

Article history:
Received 11 July 2021
Accepted 21 August 2021
Published 10 September 2021

Keyword:
Mentoring
Booklet
Feeding Behavior
Toddler Stunting

*) corresponding author
Khikmah Wati
Department of Health Promotion, Faculty of Public Health, Diponegoro University
Jl. Prof. Soedarto No.1269, Tembalang, Kecamatan Tembalang, Kota Semarang, Jawa Tengah - Indonesia 50275

Email: hikmah1975@gmail.com
DOI: 10.30604/jika.v6i3.951

ABSTRACT

Stunting is a global problem that requires comprehensive treatment, one of which is changing the behavior of mothers in feeding stunting toddlers. Behavioral changes can be done through the provision of health education in the form of mentoring and booklets. Research agreed to find out the influence of mentoring with booklet media on maternal behavior in feeding stunting toddlers in working area Puskesmas Karangdadap Pekalongan Regency. This type of research is quasi experiment with pretest posttest design with control group. The study sample was 58 mothers who had stunting toddlers in the working area of Karangdadap Health Center in Pekalongan Regency with purposive sampling techniques. Research instruments are questionnaires and booklets. Data analysis uses frequency distribution and independent t tests. The results showed that in the intervention group, 89.7% of people aged 20-35 years, as well as in the control group, all 100% of people aged 20-35 years. The majority of the intervention group respondents' jobs were out of work (58.6%), while in the control group the majority of respondents' jobs were laborers (37.9%) and non-workers at 37.9%. The majority of the education level of intervention group respondents was primary education which was 22 people (75.9.8%) as well as in the control group it is known that the majority of respondents are basic educated, namely 16 people (56.2%). Respondents who had 1 child under five in the intervention group (69%) were larger than the control group (51.7%) Feeding behavior in stunting toddlers in the intervention group was known before being given mentoring and booklets there were 15 people (51.7%) had enough behavior and 14 people (48.3%) had less behavior. Respondents after being given mentoring and booklets who have enough behavior by 19 people (65.5%) and good behavior by 10 people (34.5%). Feeding behavior in stunted toddlers in the control group was known before counseling there were 15 people (51.7%) who had sufficient behavior and 14 people (48.3%) who had less behavior. Feeding behavior in stunting toddlers after being given health counseling is known 27 people (93.1%) have enough behavior and 2 people (6.9%) have good behavior. There is a difference between mentoring with media booklet and counseling to maternal behavior in feeding stunting toddlers in the working area of Karangdadap Health Center pekalongan regency with a value of 0.001 < 0.05. Mentoring and booklets are more effective than counseling in improving feeding behavior in stunting toddlers. It is recommended for policy makers that in drafting health promotion program policies as an effort to improve feeding behavior in stunting toddlers can use effective promotional media such as mentoring and booklet.

Available online at: https://aisyah.journalpress.id/index.php/jika/
Email: jurnal.aisyah@gmail.com
INTRODUCTION

Health development in Indonesia is essentially an effort carried out by all components of the nation that aims to increase awareness, willingness and ability to live healthy for everyone in order to realize the highest degree of public health, as an investment for the development of socially and economically productive human resources. Economical (Habsara Habib Rahmat, 2018).

Children’s health is a priority in health development because competition between nations in the world will be more competitive in the future, so that Indonesia needs a quality young generation in order to compete and become a superior nation. This can be realized if children from the womb, at birth, and during their growth period have their nutritional needs met. (Kemenkes RI, 2017) The problem of malnutrition in children in Indonesia includes 32.2% of children under five who have a height that is not according to age or stunting, 19.6% of children under five with a weight that is not according to age and 10.2% born with a weight of less than 2500 grams (Kemenkes RI, 2018).

The health problem in children that is currently a priority in Indonesia and the world is childhood stunting or short stature in childhood (Kemenkes RI, 2016). Stunting is a global problem in children under 5 years of age worldwide, especially in Asia and the Pacific region (Setiyadi, 2014; Kemenkes RI, 2018). Stunting is also influenced by multidimensional factors consisting of factors from the mother such as poor parenting practices, including a lack of maternal knowledge about health and nutrition before, during pregnancy and after the mother gives birth (Dkk, 2018). The level of knowledge of a good mother is expected to have a good nutritional status. Mothers who have good nutritional knowledge will pay attention to the nutritional needs of their toddlers so that they can grow and develop optimally (Adriani, 2016) Fajrina’s research states that maternal factors affect the incidence of stunting, namely education level, age during pregnancy, mother’s height, nutritional status during pregnancy (Nurul Fajrina, 2016).

The incidence of stunting is also caused by factors from infants such as inadequate nutritional intake in infants and infections (WHO, 2014). Setiawan’s research (2018) states that the level of energy intake, a history of the duration of infectious diseases, birth weight are associated with stunting (Eko Setiawan, 2018). Stunting is also influenced by environmental factors. Insaini’s research (2014) states that factors related to stunting are access to clean water in the form of protected water sources, water is easily available throughout the year and access to sanitation in the form of latrines (Fitriati Insaini, 2014).

Malnutrition is not only due to the short physical size of children, but the domino effect on toddlers who experience stunting is more complex, such as impaired cognitive development and non-optimal metabolism (Kemenkes RI, 2018). The impact of stunting can be divided into short term and long term. The short-term impact is an increase in child mortality and morbidity, a decrease in cognitive, motor and language development. The impact in the economic sector is an increase in health costs. Long-term impacts in the health sector are short stature, increased risk of obesity and decreased reproductive health. The long-term impact in the field of development is a decrease in learning achievement and learning capacity, while in the economic field, namely a decrease in ability and work capacity (Paskalia Tri Kurniati & Sunarti, 2010).

The government in preventing stunting in children under five makes efforts to accelerate nutrition improvement which is stated through Presidential Regulation Number 42 of 2013 concerning the National Movement (Germand). This program is a synergy between the government and the community to accelerate the improvement of community nutrition with priority on the First Thousand Days of Life (1000 HPK) (Kemenkes RI, 2018). Opportunities for interventions that have proven effective in preventing stunting are child feeding practices and maternal nutrition. Recommended practices regarding timing, frequency and quality. (Dkk, 2018) This is supported by Sutarto’s research (2018) which states that stunting can be prevented through meetings the nutritional needs of pregnant women, exclusive breastfeeding until the age of 6 months and after the age of 6 months being given complementary foods (MPASI) in sufficient quantity and quality, monitoring the growth of toddlers in Indonesia. posyandu and improve access to clean water and sanitation facilities, as well as keep the environment clean (Sutarto, 2018).

The government to tackle stunting in toddlers launched the Supplementary Feeding (PMT) program. Supplementary food for toddlers is nutritional supplementation in the form of additional food in the form of biscuits with special formulations and fortified with vitamins and minerals which are given to infants and toddlers aged 6-59 months in the underweight category. For infants and children aged 6-24 months, this supplementary food is used with complementary foods for breast milk (MPASI) (Kemenkes RI, 2011). Central Java province has succeeded in reducing the number of stunting cases in children under five in 2019 to 3.10% in the short category and 13.7% in the very short category from 11.2% in the short category and 20.1% in the very short category in 2018. (Kemenkes RI, 2019) However, the number of very short categories experienced a sharp increase, while several stunting prevention and control programs in toddlers with nutritional interventions (Kemenkes RI, 2016).

Nutrition is an important factor in the pattern of growth and development of children, especially in stunted toddlers to catch up with growth. Therefore, parents must pay attention to the needs and portions of balanced nutrition so that the growth and development of toddlers can be optimal (Izatul Ajizah & Asyifa Robiatul Adawiyah, 2010). The practice of feeding stunting toddlers so far is still not right. Tanjung research (2019) stated that the consumption pattern for stunting and severe stunting children under five in the staple food that is often consumed is rice as many as 34 people (14.2%), the source of animal protein that is often consumed is eggs as many as 10 people (3.6%), , sources of vegetable protein commonly consumed are tofu as many as 17 people (8.5%), vegetables consumed are spinach as many as 20 people (8.3%), milk and milk products that are often consumed are powdered milk as many as 14 people (11.7%), and the types of snacks that are often consumed are snacks as many as 17...
people (8.5%) and jelly as many as 12 people (6%) (Mahdina Alifa Tanjung, 2019).

The practice of feeding stunting toddlers is still lacking in the Karangdadap Health Center area with the highest number of stunting toddlers in Pekalongan Regency. The number of stunting toddlers in Pekalongan Regency is 15.81% or 1,631 cases and the stunting target in 2021 is 15%. Karangdadap Health Center is a health center with the highest prevalence of stunting in children under five in Pekalongan Regency in 2020 at 27.16% or 192 cases out of 707 targets (Pekalongan, 2021). Based on the preliminary study, it is known that Karangdadap is a rural area and convection home industry. There are mothers who work as sewing workers in home industries. Infant feeding practices are also lacking. This can be seen from the achievement of the exclusive breastfeeding target of only 50%. Likewise for mothers who have stunted toddlers, the practice of providing additional food is still lacking.

Tackling stunting in toddlers requires behavior change. According to the behavioral theory proposed by Green (1980) health behavior is determined by three factors, namely predisposing factors, enabling factors and driving factors. Predisposing factors consist of knowledge, attitudes, beliefs, values and so on. A person’s behavior about health is determined by knowledge (Seokidjo Notoatmodjo, 2010). Behavior change through education or health promotion by providing information on how to achieve a healthy life so as to increase knowledge (Notoatmodjo, 2016). One way to change behavior is education, which is an interaction process that encourages learning to add new knowledge, attitudes and skills through reinforcement and certain experiences (Rikomah, 2016).

One of the media in education is a booklet. Booklets are below the line media or tools used to convey the communicator’s message to the audience. Messages in this media are guided by the criteria, namely using short, simple, concise, succinct sentences, large and bold letters, attractively packaged, and the words used are short. Booklets are in the form of small books, to convey information in writing in the form of sentences, as well as pictures or combinations that are set forth in sheets in simple language (Srimiyati, 2020).

This study aims to change the behavior of mothers in feeding stunting toddlers, so they need assistance other than booklet media. This is in accordance with the opinion which states that healthy behavior that is carried out permanently requires a strong commitment and adequate self-control. Personal, interpersonal and past experiences can influence the behavior change process. Health assistance is carried out in order to ensure that the health education that has been given is still carried out by the recipients of the education (Martina Pakpahan, 2020).

The purpose of the study was to determine the effect of mentoring with booklet media on the behavior of mothers in feeding stunting toddlers in the working area of the Karangdadap Health Center, Pekalongan Regency.

METHOD

This type of research is a quasi-experimental design using a pre-test post-test with a control group. The research sample was mothers who had stunting toddlers in the working area of the Karangdadap Health Center. Pekalongan Regency as many as 58 people with purposive sampling technique. The study consisted of 2 (two) groups, namely the intervention group who were given mentoring and booklets with a sample of 29 people, and the control group who was given health education with a sample of 29 people. The research instrument used a questionnaire and booklet. Data analysis used univariate in the form of frequency distribution and percentage, while bivariate analysis used independent t-test.

RESULTS AND DISCUSSION

![Figure 1](image1.png)

Figure 1 shows that the number of respondents based on age in the intervention group is known to be 89.7% of people aged 20-35 years, as well as in the control group, 100% of people aged 20-35 years are known.

Characteristics of respondents based on age are known in the intervention group known to be 89.7% of people aged 20-35 years as well as in the control group known to all 100% of people aged 20-35 years. The majority of respondents’ occupations from the intervention group were unemployed (58.6%), while in the control group the majority of respondents’ occupations were laborers (37.9%) and 37.9% of respondents who did not work. The majority of respondents’ education level in the intervention group was basic education, namely 22 people (75.9%) as well as in the control group, it was known that the majority of respondents had basic education, namely 16 people (56.2%). Respondents who had 1 child under five in the intervention group (68%) were larger than those in the control group (51.7%).

![Figure 2](image2.png)

Figure 2 shows that the number of respondents based on occupation in the intervention group is known to be 58.6% of people, while in the control group, 100% of people are known. The majority of respondents' occupations from the intervention group were unemployed (58.6%), while in the control group the majority of respondents’ occupations were laborers (37.9%) and 37.9% of respondents who did not work. The majority of respondents’ education level in the intervention group was basic education, namely 22 people (75.9%) as well as in the control group, it was known that the majority of respondents had basic education, namely 16 people (56.2%).
of respondents’ occupations are laborers (37.9%) and 37.9% of respondents who do not work.

Figure 3 shows that the majority of respondents’ education level in the intervention group is basic education, namely 22 people (75.9%) as well as in the control group, it is known that the majority of respondents have basic education, namely 16 people (56.2%).

Figure 4 shows that respondents who have 1 child under five in the intervention group (69%) are greater than those in the control group (51.7%).

Feeding Behavior of Stunting Toddlers in the Intervention Group

The behavior of feeding stunting toddlers before and after being given assistance and booklets can be seen in the figure 5.

Figure 5 shows that before being given assistance and booklets there were 15 people (51.7%) who had sufficient behavior and 14 people (48.3%) who had poor behavior in feeding stunting toddlers. Respondents after being given mentoring and booklets who had sufficient behavior were 19 people (65.5%) and 10 people (34.5%).

Feeding Behavior of Stunting Toddlers in the Intervention Group

The behavior of feeding stunting toddlers before and after being given health education can be seen in the figure 6.

Feeding Behavior of Stunting Toddlers in the Control Group, 2022

Figure 6 shows that before the counseling was given there were 15 people (51.7%) who had sufficient behavior and 14 people (48.3%) who had poor behavior in feeding stunting toddlers. The feeding behavior of stunting children after being given health education showed that 27 people (93.1%) had sufficient behavior and 2 people (6.9%) had good behavior.

The Difference Between Mentoring with Media Booklets and Counseling on Mother’s Behavior in Feeding Stunting Toddlers

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>( \rho ) value (signifikansi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeding behavior in stunting toddlers (mentoring and booklet)</td>
<td>29</td>
<td>15.76</td>
<td></td>
</tr>
<tr>
<td>Feeding behavior in stunting toddlers (counseling)</td>
<td>29</td>
<td>11.07</td>
<td>0.001</td>
</tr>
</tbody>
</table>

The results of the independent t test showed that the value obtained was 0.001 < 0.05, which means that there is a difference between mentoring with booklet media and counseling on maternal behavior in feeding stunting toddlers in the work area of Karangdadap Public Health Center, Pekalongan Regency (table 1).

Based on the mean value of the difference in feeding behavior for stunting toddlers before and after being given mentoring and booklets with feeding behavior for stunting toddlers before and after being given health education, it is known that the average difference in the intervention group (assistance and booklet) is greater, namely 15.76, compared...
to the difference in the average value given by health education, which is 11.07. It can be concluded that mentoring and booklets are more effective in improving the feeding behavior of stunting toddlers.

**DISCUSSION**

**Characteristics of Respondents**

Characteristics of respondents based on age are known in the intervention group known to be 89.7% of people aged 20-35 years as well as in the control group known to all 100% of people aged 20-35 years. The majority of respondents’ occupations from the intervention group were unemployed (58.6%), while in the control group the majority of respondents’ occupations were laborers (37.9%) and 37.9% of respondents who did not work. The majority of respondents’ education level in the intervention group was basic education, namely 22 people (75.9%) as well as in the control group, it was known that the majority of respondents had basic education, namely 16 people (56.2%). Respondents who had 1 child under five in the intervention group (69%) were larger than those in the control group (51.7%).

**Feeding Behavior for Stunting Toddlers with Mentoring and Booklets**

The results showed that in the group that was given mentoring and booklets it was known that before being given mentoring and booklets there were 15 people (51.7%) who had sufficient behavior and 14 people (48.3%) who had poor behavior in feeding stunting toddlers. Respondents after being given mentoring and booklets who had sufficient behavior were 19 people (65.5%) and 10 people (34.5%).

Booklets are below the line media or tools used to convey the communicator’s message to the audience. Messages in this media are guided by the criteria, namely using short, simple, concise, succinct sentences, large and bold letters, attractively packaged, and the words used are short. Booklet in the form of a small book, to convey information in writing in the form of sentences, as well as pictures or combinations that are set forth in sheets in simple language.. (Srimiyati, 2020)

The results of this study are in accordance with the theory above, that health education aims to change a person’s health behavior. Health education provided by the Pekalongan District Health Office uses leaflets containing media about stunting and its prevention. Health education using leaflet media requires the ability of each respondent to be able to capture information, interpret and process this information into knowledge that is used as the basis for changing behavior. This can be seen from the results of the study after being given health counseling, it was found that 27 people (93.1%) had sufficient behavior and 2 people (6.9%) had good behavior.

**Differences between Mentoring with Media Booklets and Counseling on Mother’s Behavior in Feeding Stunting Toddlers**

The results of the independent t test obtained a value of 0.001 < 0.05, which means there is a difference between mentoring with booklet media and counseling on maternal behavior in feeding stunting toddlers in the work area of Karangdadap Health Center, Pekalongan Regency. Mentoring and booklets are more effective in improving the feeding behavior of stunting toddlers. The average difference in the intervention group (assistance and booklet) was 15.76, compared to the difference in the average score given by health education, which was 11.07.

The Edgar Dale cone describes the participants’ ability to recall health education messages according to the technique and medium. According to Edgar’s cone, within two weeks of the participant doing it, the participant who heard and saw would remember 50% of what he heard and saw. (Martina Pakpahan, 2020)

Based on this theory, respondents after being given a booklet for 2 (two) weeks experienced behavioral changes in feeding stunting toddlers. The booklet contains information about stunting and feeding stunted toddlers. Respondents see and read the contents of the booklet and process the information received and implemented in the form of behavior. The ability of respondents to remember the contents of the message from the booklet is 50%.

The feeding behavior of stunting toddlers who were given health education using mentoring with booklets was better than health education using leaflets. It can be seen from the results of the study that after being given assistance with booklets, no one had poor behavior in feeding stunting toddlers and 10 people (34.5%) had good behavior while in the control group who were given health education there were only 2 people (6.9%) who had good behavior in feeding stunting toddlers. This is because assistance with booklets can help ensure that respondents implement the information received from the booklet in the form of behavior.
CONCLUSIONS AND SUGGESTION

Conclusions
1. Characteristics of respondents based on age are known in the intervention group known to be 89.7% of people aged 20–35 years as well as in the control group known to all 100% of people aged 20–35 years. The majority of respondents’ occupations from the intervention group were unemployed (38.6%), while in the control group the majority of respondents’ occupations were laborers (37.9%) and 37.9% of respondents who did not work. The majority of respondents’ education level in the intervention group was basic education, namely 22 people (75.9.8%) as well as in the control group, it was known that the majority of respondents had basic education, namely 16 people (56.2%). Respondents who had 1 child under five in the intervention group (69%) were larger than those in the control group (51.7%).

2. The feeding behavior of stunting toddlers in the group that was given mentoring and booklets was known before being given assistance and booklets there were 15 people (51.7%) who had sufficient behavior and 14 people (48.3%) who had poor behavior in feeding stunting toddlers. Respondents after being given mentoring and booklets who had sufficient behavior were 19 people (65.5%) and 10 people (34.5%).

3. The feeding behavior of stunting toddlers in the group that was given counseling was known before being given counseling were 15 people (51.7%) who had sufficient behavior and 14 people (48.3%) who had poor behavior in feeding stunting toddlers. The feeding behavior of stunting toddlers after being given health education showed that 27 people (93.1%) had sufficient behavior and 2 people (6.9%) had good behavior.

4. There is a difference between mentoring with booklet media and counseling on maternal behavior in feeding stunting toddlers in the work area of Karangdadap Health Center, Pekalongan Regency with value 0.001 < 0.05. Mentoring and booklets are more effective in improving the feeding behavior of stunting toddlers. The average difference in the intervention group (assistance and booklet) was 15.76, compared to the difference in the average score given by health education, which was 11.07..

Suggestions
1. For Health Institutions
   a. District Health Office, Pekalongan
      The results of this study can be used in formulating policies for health promotion programs for parents who have stunted toddlers to improve feeding behavior in stunting toddlers by using effective promotional media such as mentoring and booklets.

   b. Health Promotion Officer
      The results of this study are expected to provide input for health promotion officers in improving the feeding behavior of stunting toddlers by using mentoring and booklets because the information provided in the booklets can be implemented in the feeding behavior of stunting toddlers and monitored through mentoring programs.

   c. Karangdadap Health Center
      The results of this study can be used as consideration for the Karangdadap Health Center in reducing the incidence of stunting in toddlers by providing health promotion about feeding stunting toddlers.

2. For Other Researchers
   The results of this study should be used as reading material and literature to add insight about feeding stunting toddlers using mentoring and booklets can be used as a reference for future research.

Funding Statement
The authors did not receive support from any organization for the submitted work.

Conflict of Interest Statement
The authors declared that no potential conflicts of interest with respect to the authorship and publication of this article

REFERENCES


The Influence of Assistance with Media Booklet on Maternal Behavior in Feeding Stunting Toddlers