



## The Effect Of Education Through Leaflet Media On The Level Of Knowledge And Attitudes Of Mothers Regarding Stunting In The Working Area Of The Cot Seumeureung Puskesmas, Samatiga Sub-District

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### ABSTRACT

*Stunting* is a condition of impaired growth in children under five years old, characterized by a height or length below minus two standard deviations for children of the same, age. **Objective** : This study aimed to examine the effect of leaflet media on mothers' knowledge and attitudes regarding stunting in Cot Seumeureung Health Center, Samatiga. This study used a one-group pretest-posttest experimental design approach. 35 mothers with children under five were selected as the sample through total sampling. **Results** : Before the leaflet based education on stunting, the level of mothers' knowledge and attitudes was categorized as good in 4 respondents (14.4%). Adequate in 6 respondents (17,1%). And poor in 25 respondents (71.4%). After the implementation, the results improved, with 24 respondents (68.6%) in the good category and 11 respondents (31.4%) in the adequate category. The Wilcoxon test showed a significant result, with Asymp. Sig. (2-tailed) at 0.000. since the p-value of 0.000 is less than 0.05, and the Z value obtained is -5.6015b, these findings indicate a significant effect of leaflet-based education on mothers' knowledge and attitudes toward stunting. There is a notable impact of leaflet media education on mothers' knowledge and attitudes regarding stunting. The findings of this study are expected to inform and support improvements in mothers' knowledge and attitudes about stunting. The Cot Seumeureung Health Center is encouraged to promote educational initiatives on stunting through leaflet presentations to enhance awareness and attitudes among mothers.

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### 1. Introduction

Stunting is a failure in the growth process in children under the age of five. Growth failure in toddlers is caused by a lack of food intake over a prolonged period of time, accompanied by recurrent diseases in the first 1,000 days of life (HPK), this starts from the beginning of the formation of the fetus until the child is 24 months old. characterized by a child's height or

length being less than minus two standard deviations compared to other children of the same age (Setwapres, 20022).

Based on data collected from the World Health Organization (WHO) in 2023 revealed that the total number of stunting cases in the world reached up to 22% or as many as 149.2 million people, Quantity of Stunting Cases in toddlers in Asia occupied about 50% of the number of stunting around the world with a percentage reaching 83.6 million people, south Asia accounted for the largest percentage 58.7%, Southeast Asia 14.9% and Central Asia 0.9% (WHO, 2023).

According to data compiled from the Ministry of Indonesia in 2023, stunting cases that occurred in Indonesia had the second highest value in Southeast Asia with a percentage of 31.8%, while the first highest stunting case was Timor Leste with a prevalence of 48.8%, Laos was third with a number of cases of 30.2% then Cambodia with a prevalence of 29.9% and the lowest stunting case came from Singapore with a prevalence of 2.8%. determination of Nutritional Status in 2023 reached 27.5% (Kementrian Kesehatan Indonesia, 2023).

Stunting cases that occurred in Aceh Province in 2023 showed the fourth highest prevalence with a percentage reaching 24.4% (Dinas Kesehatan Provinsi Aceh, 2023), or the percentage of stunting prevalence in each district in Aceh Province, especially West Aceh District was in seventh position, reaching 35.2%, while the highest prevalence is Subulussalam City at 47.9%, North Aceh district came in second with 38.3%, followed by Pidie Jaya with 37.8%, Simeulue with 37.2%, and Bener Meriah with 37%, Southeast Aceh 36.7%, South Aceh 34.8%, Central Aceh 32%, Banda Aceh 25.1%, Bireuen 23.4%, Sabang 23.4%, Langsa 22.1%, Northwest Aceh 30.4%, Nagan Raya 28.8%, Lhokseumawe 28.1%, Aceh Tamiang 27.4%, Aceh Besar 27%, and Aceh Jaya 19.9%. Based on the data above, Reducing the frequency of stunting is a task for the Aceh government, and will require cross-sectoral efforts. (Dinas Kesehatan Aceh Barat, 2023)

The most common causes of stunting are chronic malnutrition or chronic infectious diseases. In addition, stunting can also occur from a number of causal variables, including socioeconomic circumstances, maternal nutrition during pregnancy, and newborn illnesses. At this stage of development, toddlers who are stunted will have difficulty achieving optimal physical and cognitive development (Kementrian Kesehatan Indonesia, 2023). Stunting is caused by morbidity (disability) and mortality (death) factors, infections such as pneumonia, tuberculosis, meningitis, hepatitis, and irreversible immune system disorders (Meria, 2023).

The impact that occurs in toddlers who experience stunting has a major influence on all aspects of growth and development, namely weight and height growth as well as cognitive, gross motor, fine motor, speech, and social emotional development will run very slowly and not optimally. If this condition occurs in the golden period, then the child's suboptimal growth and development will be irreversible or irreversible until the child becomes an adult. Prevention of stunting and growth disorders requires multisectoral cooperation. Health workers who collaborate with stakeholders also play an active role in monitoring and providing counseling and consultation. In addition, it is important for health workers to be able to foster the level of knowledge, attitudes, and awareness of individuals and families in participating in reducing stunting rates (Laily & Indarjo, 2023).

A follow-up to the government's efforts to address the problem of stunting is the National Strategy to Accelerate Prevention of Stunting and Malnutrition. Efforts to accelerate stunting reduction must be supported by specific interventions in order to achieve the appropriate targets by 2024. Effective interventions in stunting prevention can be carried out through nutritional breakthroughs, with the main focus on pregnant women, breastfeeding

mothers, and children aged 0-24 months (Kementrian Kesehatan RI, 2020). In addition, actions by providing health education are also important so that community knowledge, attitudes and actions can increase for the stunting prevention process. The formation of good knowledge will create good attitudes and behaviors as well. Notoatmodjo also emphasized that knowledge or cognitive has an important role in influencing behavior (Zahra et al., 2021).

Education in the delivery of health information also needs to be supported by the selection of instruments that are more interesting and easy to understand. Therefore, utilizing media as a Health Education tool is one alternative to facilitate the delivery of information. The use of media is based on the principle that a person receives information through the five senses. By involving the five senses, the clearer the information obtained. This justifies the effectiveness of a medium to be easily understood by the target, namely by using verbal and visual media which are 6 times more effective than using only one of the verbal and visual (Yulastini et al., 2022).

One of the media that can be used to deliver Health Education education is leaflets. Leaflets are printed media that are packaged containing learning material and then presented in an attractive and flexible form or format (Zahra et al., 2021). The effectiveness in increasing community knowledge, According to research findings conducted on a 2023 study by Mardan et al which showed pretest and posttest scores in his research, the pretest results of the mother's knowledge level with a score of 60% were categorized as insufficient and sufficient by 40% on stunting prevention. The score increased after being given an educational intervention through leaflet media to 14.3% categorized as less, and 85.7% categorized as sufficient (Mardan et al., 2023).

Based on observations made by researchers, there are 5-10 marriages that occur every month in Cot Seumeureung village. Then the results of a preliminary study of 10 parents in the Cot Seumeureung Health Center working area in Samatiga District showed that 4 out of 10 did not understand about stunting to deal with and prevent it. According to local health workers in the Cot Seumeureung Puskesmas working area, they have never provided in-depth education about stunting.

## 2. Methods

This study was conducted from July 13 to July 27, 2024 in the work area of the Cot Seumeureung Health Center, Samatiga District. The type of research used is quasi esperiment with pretest-posttest design with control group. This study reveals the effect of education using leaflet media on stunting by involving one group of subjects controlled by researchers. The sample in this study amounted to 35 mother respondents who had toddlers. The sampling technique used in this study is total sampling where the entire population in this study is used as a sample (Sugiyono, 2019). respondents will be given a pretest to measure knowledge before treatment using a questionnaire then given treatment and given a posttest to measure knowledge after treatment (Arikunto, 2019). The questionnaire used in this study was adopted and has been tested for validity and reliability by (Maria dedo, 2023) which consists of 10 questions in the form of questions with correct and incorrect answer choices.

## 3. Results and Analysis

### 3.1 Univariat analysis

#### a. Respondent Characteristics

**Table 1**  
Distribution Of Respondent Characteristics Based On Frequency of Cot Seumeureung Health Center in 2024 (n = 35)

Respondent Characteristics		
Age	F	%
20-25 Years	2	5,71

26-30 Years	12	34,29
31-35 Years	8	22,86
36-40 Years	8	22,86
>41 Years	5	14,29
<b>Total</b>	<b>35</b>	<b>100</b>
<b>Education</b>	<b>F</b>	<b>%</b>
SMP	10	28,57
SMA	13	37,14
Diploma (D1-D3)	2	5,71
Sarjana (S1)	10	28,57
<b>Total</b>	<b>35</b>	<b>100</b>
<b>Jobs</b>	<b>F</b>	<b>%</b>
Civil Servant	1	2,86
Housewife	30	85,71
Teacher	3	8,57
Nurse	1	2,86
<b>Total</b>	<b>35</b>	<b>100</b>
<b>Number Of Children</b>	<b>F</b>	<b>%</b>
1-2 Children	17	48,57
3-4 Children	15	42,86
5-6 children	3	8,57
<b>Total</b>	<b>35</b>	<b>100</b>

Source: Primary Data (Processed, 2024)

Table 1. The above shows that the majority of respondents who took part in this study in terms of age, the majority are 26-30 years old (34.29%), in terms of education, the majority are high school students (37.14%), in terms of work, the majority are housewives (85.71%), and in terms of the number of children, the majority have 1-2 children (48.57%).

b. Attitudes and Knowledge Of Mothers Before Receiving Counseling On Stunting Through Leaflet Media

**Table 2**

Distribusi Of Respondents Based On The Level Of Knowledge And Attitudes Of Mothers Before Being Given Education With Leaflet Media Regarding Stunting in the Cot Seumeureung Health Center Working Area in 2024 (n = 35)

Pre-Test	F	%	Mean	SD	Min	Max
Good	4	11,4				
Fair	6	17,1	1,40	0,695	1	3
Less	25	71,4				
<b>Total</b>	<b>35</b>	<b>100%</b>				

Source: Primary Data (Processed, 2024)

Table 2. above shows that the majority of respondents who participated in this study before being given education using leaflet media regarding stunting had an average knowledge of less with a total of 71.4% (25 people), while knowledge in the sufficient category was 17.1% (6 people) and knowledge in the 11.4% category (4 people). The pretest results showed an average knowledge of 1.40.

c. Attitudes and Knowledge Of Mothers After Receiving Counseling On Stunting Through Leaflet Media

**Table 3**

Distribution of Respondents Based on the Level of Knowledge and Attitudes of Mothers after Being Educated with Leaflet Media Regarding Stunting in the Cot Seumeureung Health Center Working Area Year 2024 (n = 35)

Post-Test	F	%	Mean	SD	Min	Max
Good	24	68,6				
Fair	11	31,4	2,69	0,471	2	3
Less	0	0,00				
<b>Total</b>	<b>35</b>	<b>100%</b>				

Source: Primary Data (Processed, 2024)

Table 3. The above shows that there is an increase in knowledge after the intervention given to respondents in the good category to 68.6% (24 people). The results of the post test conducted showed that the average knowledge increased to 2.69 from the previous category.

### 3.2 Bivariat analysis

**Table 4**

The Effect of Leaflet Media Education on Stunting on Maternal Knowledge and Attitudes in the Cot Seumeureung Health Center Working Area, Samatiga District (n=35)

Pengetahuan dan Sikap	N	Mean	Std Devition	Min	Max	Z	Asym. Sig (2-tailed)
Pre	35	1,40	0,695	1	3	-5,015 <sup>b</sup>	0,000
Post	35	2,69	0,471	2	3		

Source: Primary Data (Processed, 2024)

The results of the study using the Wilcoxon test showed a significant effect between before and after being given an educational intervention through leaflet media regarding stunting with a P-Value of 0.000, where the P-Value <0.05 so, it can be concluded that  $H_a$  is accepted and  $H_0$  is rejected.

### 3.3 Analysis

Based on the pretest results, it is known that 71.4% of respondents previously had poor knowledge about stunting with an average value of 1.40 which is the limit between the good and sufficient categories. After the intervention with leaflet media, there was a significant increase in knowledge, respondents in the good category increased from 11.4% to 68.6% supported by an average value of 2.69.

Providing education about stunting using leaflet media is one of the efforts that can be made to improve mothers' knowledge and attitudes in preventing and dealing with stunting problems. In conducting this education, there are various kinds of media and methods that can be applied, one of which is leaflet media. Leaflet media in the form of printed sheets of paper containing information or messages such as balanced nutrition in toddlers to prevent stunting which is then conveyed to the wider community (Defiyanti, 2022).

Evidence that stunting education using leaflet media has a positive impact can be seen from the results of the post test which experienced a significant increase, good category respondents in the pretest increased to 68.6% during the post test. Also during the provision of stunting education through leaflet media, respondents were actively involved both in the process of answering questions, discussions, and enjoying the explanation delivered by the researcher. Leaflet media is able to increase interest and curiosity for respondents because education is packaged in the form of leaflets that are folded into 3 parts and interesting content that makes respondents not bored in reading and understanding the explanations conveyed by researchers, coupled with the appearance of leaflets that not only contain text but are accompanied by images related to stunting so as to attract the attention and curiosity of respondents to this, therefore researchers have the opportunity to be able to explain more according to respondents' curiosity. This helps increase respondents' knowledge and understanding of stunting and shows that education through leaflet media is effective for increasing mothers' knowledge and attitudes about stunting.

This research is in accordance with previous research researched by Meria in 2023 which also proves that there is a significant influence between the knowledge and attitudes of respondents before and after being given Health Education using leaflet media with pretest results for knowledge having a score of 8.00 and for attitudes of 43.00, while the posttest results show a score of 12.00 for knowledge and 54.00 for the respondent's attitude score. This is also supported by Nurulfitriana's research in 2022 with the results of the score after being given education about stunting using leaflet media increased from 58.7 to 87.6 (Meria, 2023).

In line and supported by research conducted by Putriani in 2023 which shows that the knowledge of mothers who have toddlers before health counseling about stunting using leaflet media

has low knowledge with a score of 48%, in the category of sufficient knowledge 38% and good knowledge only 14%. However, after the intervention of counseling on stunting with leaflet media showed an increase in good knowledge to 70% (Putriani, 2023).

#### 4. Conclusion

Knowledge and attitudes to prevent stunting in toddlers are greatly affected both before and after receiving education about stunting through leaflet media. This is supported by the results of the Wilcoxon test which shows a z-score value of -5.015 and a P value of 0.000 < 0.05 ( $H_a$  is accepted and  $H_0$  is rejected).

During this study, more intention was needed in delivering education using leaflets to respondents because the average respondent was unable to understand Indonesian properly and correctly. For further research, it is necessary to develop information related to stunting prevention that can be accessed by the community continuously. This leaflet can also be printed on a larger scale so that it can be displayed at the health center or in places that are usually used as posyandu.

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