

# **The Effectiveness Of Leaflet Media On Maternal Knowledge And Attitudes About Stunting Prevention At Titi Papan Village Medan Deli District In 2025**

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## **ABSTRACT**

Health promotion media has a meaningful relationship in increasing public knowledge and attitudes. One of the health promotion media is leaflet media. Leaflets are sheets of paper containing health messages pictures and writing about a health topic that is conveyed to the audience or reader. Based on initial survey data in Titi Papan Village, Medan Deli District, the number of stunted toddlers in 2021 was 33 cases. Titi Papan Village had the highest stunting with 24 cases of toddlers, Mabar Village 5 cases, and Mabar Hilir Village 3 cases. The purpose of this study was to determine the effectiveness of leaflet media on mothers' knowledge and attitudes about stunting prevention in Titi Papan Village, Medan Deli District. This study used a quasi-experimental design with a pretest-posttest design. The population of this study were pregnant women and mothers who had babies aged 0-2 years as many as 124. The sample in the study was 94 respondents, using the Slovin formula, the analysis used univariate and bivariate with Paired T-test. The results of the study showed a variable of changes in respondent knowledge before and after counseling with a significant level of  $p = 0.001$  and a change in respondent attitudes before and after counseling with a significant level of  $p = 0.000$  regarding stunting prevention in Titi Papan Village, Medan Deli District. This study concludes that there is effectiveness of leaflet media on mothers' knowledge and attitudes about stunting prevention in Titi Papan Village, Medan Deli District.

**Keywords:** Leaflet Media, Knowledge, Attitude, Stunting Prevention

## **INTRODUCTION**

Health development is a national development effort that is carried out continuously, directed, and integrated. Health development aims to increase awareness, willingness, and ability to live healthily for everyone to realize the health level of all Indonesian people. One of the targets of health development is to improve the health level of the community, this target is developed into a target for the success of health development as indicated by the decreasing prevalence of malnutrition that can cause stunting in toddlers. (1)

According to WHO, Stunting is a failure to thrive in children under five years of age resulting in a shorter body for their age. Stunting begins in the first 1000 days of life and is mostly caused by inadequate nutrition and repeated infections. Stunting has long-term effects on individuals, including decreased cognitive and physical development, decreased productive capacity and poor health, and increased risk of disease..(2)

World Health Organization (WHO) reported that in 2019 there were 144.0 million cases or equivalent to 22.0% of toddlers experiencing stunting. The continents that contributed the most to stunting were Asia and Africa, with a prevalence of 78.2 million in Asia and followed by Africa at 57.5 million. Southeast Asia is the continent that contributed the most to stunting in the world, with a stunting prevalence of 24.7%. (2)

Data from the Indonesian Ministry of Health in 2019 reported that the prevalence of stunting in Indonesia is still high at 27.67%. East Nusa Tenggara Province is the province with the highest prevalence rate in Indonesia with a prevalence of 43.8%. North Sumatra is also a province with a stunting prevalence rate of 30.11%. (3)

The Central Statistics Agency (BPS) reported that the prevalence in Medan City is as much as 11.69%. (4) Medan Deli District is a stunting prevention locus programmed by the Medan City government due to the high number of stunting cases. (5)Based on the initial survey data obtained by researchers from Titi Papan, Medan Deli District, it was found that the number of stunted toddlers in 2021 in Medan Deli District was 33 cases of stunted toddlers. Titi Papan Village contributed the highest number of stunting cases with 24 toddler cases, followed by Mabar Village with 5 cases, and Mabar Hilir Village with 3 cases.

The prevalence rate is still high, The Ministry of Health sets a target for reduction in Indonesia, aligned with the global target, namely the World Health Assembly (WHA) target to reduce the prevalence of stunting by 40% in 2025 from the 2013 condition. In addition, the target of the Sustainable Development Goals (TPB/SDGs) is to eliminate all forms of malnutrition by 2030. For this reason, efforts are needed to accelerate the reduction of stunting from the current condition so that the prevalence of stunting in toddlers drops to 22% in 2025. (6)

Stunting in toddlers is characterized by the presence of slow growth, decreased concentration, weight loss, sunken cheeks, and eyes, and swelling in certain parts of the body such as the stomach, face, and feet, and the child will be susceptible to various infectious diseases. Stunting is very risky for pregnant women. The reason is, that pregnant women who are short below average will experience slow blood flow to the fetus, as well as the growth of the uterus and placenta. This will have a bad impact on the baby being born. Babies born to mothers who are

below average height are at risk of experiencing serious medical complications, even stunted growth, the development of the baby's nerves and intellectual abilities will be hampered, accompanied by low height, as stunting that has been going on since childhood, babies with this condition will also continue to experience the same thing until they grow up. Stunting can be caused by lack of protein intake, provision of MP-ASI that does not provide sufficient nutritional intake, poor environmental hygiene, and poor parenting. Stunting can be prevented by fulfilling the mother's nutritional needs during pregnancy and breastfeeding, initiating early breastfeeding and providing exclusive breastfeeding, as well as being equipped with knowledge about good complementary feeding and implementing it. (7)

The National Strategy of the Ministry of Health in making efforts to accelerate the prevention of stunting in children for the period 2018-2024 following the second pillar is through a behavior change communication approach, which aims to increase awareness and understanding and encourage behavioral changes to prevent stunting, which includes national campaigns and socialization using various forms of media and various community activities, interpersonal communication to encourage behavioral changes at the household level, ongoing advocacy to decision-makers at various levels of government, and development of program manager capacity. (8)

Stunting is a condition of growth failure in toddlers that can be prevented, stunting can also be influenced by behavioral aspects, especially poor parenting patterns and lack of knowledge. One effort to improve knowledge and attitudes is to provide health promotion using counseling to improve knowledge to change behavior that can lead to improved health to prevent stunting. (9)

Efforts to provide education or health promotion are very important to provide a basic understanding of stunting so that it is expected to minimize the incidence of stunting. Health promotion is an effort that aims to provide messages about health to community groups so that people can implement healthy living behaviors, for themselves, their families, and in the community. Providing health promotion can have an impact on increasing public knowledge and attitudes toward efforts to prevent disease or health problems. (10) The use of a combination and health promotion methods that are appropriate to the target group will greatly assist in delivering health promotion. The more senses are used, the more and clearer the knowledge obtained by a person. The use of teaching aids will greatly assist in conducting health promotion to a person or community more clearly. (11)

Knowledge is the result of knowing, and this happens after people sense a particular object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste, and touch. Most human knowledge is obtained through the eyes and ears. Attitude is a reaction or response that is still closed from a person to an object stimulus. In this case, knowledge and attitude are things that are very related to the formation of behavior behavior is the totality of a person's appreciation and activities, and the formation of human behavior is very dependent on internal factors that are owned, namely the level of knowledge, emotional, and gender. External factors, namely the environment, social, cultural, and economic that a person has to respond to or a person's reaction to stimuli that are carried out from outside. (12)With public knowledge, public attitudes will change, which is indicated by changes in behavior that are not following health values to behavior that is following health behavior.

Health promotion media has a meaningful relationship in increasing public knowledge and attitudes. One of the health promotion media is leaflet media. The leaflet is a sheet of paper containing health messages containing pictures and writing about a health topic that is delivered to the audience or reader. A leaflet is chosen as a promotional medium because it can be stored for a long time, and can function as a reminder for the target, easy to carry anywhere and disseminate. (11)

The results of Insdaruwati's 2020 study on the effect of health education using leaflet media on the level of knowledge and attitudes of mothers regarding stunting prevention in Telukan Village, Grogol District showed that leaflets were effective in increasing knowledge about stunting with a p-value of 0.000. (13)The results of Gea's 2019 study on the effect of counseling on balanced nutritional diets using leaflets on the knowledge and actions of mothers of stunted Paud children in Sekip Village, Lubuk Pakam District, showed that leaflets were effective in increasing knowledge about stunting with a p-value of 0.000. (14)Furthermore, the results of the 2019 Sewa study on the effect of health promotion on knowledge and attitudes with stunting prevention measures by Posyandu Cadres in the Bailang Health Center work area of Manado City showed that leaflets were effective in increasing community knowledge and attitudes about stunting prevention with a p-value of 0.000. (15)

The initial survey was conducted by interviewing 10 pregnant women and mothers who had babies aged 0-2 years in Titi Papan Village, Medan Deli District. The results of the researcher's interview showed that 7 people said they did not understand what stunting was, how important it is to provide exclusive breastfeeding to babies, the importance of bringing babies for complete basic immunization, and the importance of providing good nutritional intake during pregnancy

and in toddlers, how to eat properly for babies, and the mother also said they did not understand the impact of stunting on toddlers. While 3 people understood the impact and prevention of stunting on toddlers who were active in posyandu activities and counseling carried out by the health center using poster media, they also said that the health center had never conducted counseling using leaflet media.

Based on the background above, the researcher is interested in conducting a study entitled "The effectiveness of leaflet media on mothers' knowledge and attitudes about stunting prevention in Titi Papan Village, Medan Deli District in 2025.

## METHOD

This study uses a quasi-experimental design with a pretest posttest design. The population of this study were pregnant women and mothers who had babies aged 0-2 years totaling 124. The sample in the study was 94 respondents, using the slovin formula, the analysis used univariate and bivariate with the Paired T-test.

## RESULTS

### Univariate Analysis

**Table 1.** Distribution of Respondent Characteristics in Titi Papan Subdistrict Medan Deli District in 2025

No	Age	Frequency (f)	Percentage (%)
1	25-26 Years	10	10.6
2	27-28 Years	12	12.8
3	29-30 Years	21	22.3
4	31-32 Years	14	14.9
5	33-34 Years	10	10.6
6	35-36 Years	6	6.4
7	37-38 Years	14	14.9
8	39-40 Years	7	7.4
<b>Total</b>		<b>94</b>	<b>100.0</b>
No	Education	F	%
1	SENIOR HIGH SCHOOL	78	83.0
2	D3-S1	16	17.0

	<b>Total</b>	<b>94</b>	<b>100.0</b>
<b>No</b>	<b>Work</b>	<b>F</b>	<b>%</b>
1	Housewife	58	61.7
2	civil servant	27	28.7
3	Self-employed	9	9.6
	<b>Total</b>	<b>94</b>	<b>100.0</b>

**Table 2.** Frequency Distribution of Respondents Based on Pre-Test Knowledge in Titi Papan Subdistrict, Medan Deli District in 2025

<b>No.</b>	<b><i>Pre-Test</i></b>			<b><i>Post-Test</i></b>		
	<b>Knowledge</b>	<b>f</b>	<b>%</b>	<b>Knowledge</b>	<b>F</b>	<b>%</b>
1.	Good	42	44.7	Good	83	88.3
2.	Enough	40	42.6	Enough	11	11.7
3.	Not enough	12	2.8	Not enough	0	0
	<b>Total</b>	<b>94</b>	<b>100</b>	<b>Total</b>	<b>94</b>	<b>100</b>

**Table 3.** Frequency Distribution of Respondents Based on Pre-Test Attitudes in Titi Papan Subdistrict, Medan Deli District in 2025

<b>No.</b>	<b><i>Pre-Test</i></b>			<b><i>Post-Test</i></b>		
	<b>Knowledge</b>	<b>f</b>	<b>%</b>	<b>Knowledge</b>	<b>F</b>	<b>%</b>
1.	Negative	66	70.2	Negative	37	39.4
2.	Positive	28	29.8	Positive	57	60.6
	<b>Total</b>	<b>94</b>	<b>100</b>	<b>Total</b>	<b>94</b>	<b>100</b>

**Table 4.** Effectiveness of Leaflet Media on Mothers' Knowledge about Stunting Prevention in Titi Papan Subdistrict, Medan Deli District Year 2025

<b>Knowledge Variable</b>	<b>Mean</b>	<b>N</b>	<b>Std. Deviation</b>	<b>Sig</b>
<b>Pre-test</b>	10.07	94	3,699	0.001
<b>Post-test</b>	14.62	94	3,325	

**Table 5.** Effectiveness of Leaflet Media on Mothers' Attitudes Regarding Stunting Prevention in Titi Papan Subdistrict, Medan Deli District Year 2025

Attitude Variable	Mean	N	Std. Deviation	Sig
Pre-test	37.71	94	6,889	0,000
Post-test	46.44	94	11,553	

## DISCUSSION

### Effectiveness of Leaflet Media on Mothers' Knowledge of Stunting Prevention in Titi Papan Village, Medan Deli District in 2025

The results of the study statistically showed  $p = 0.000$  or  $<0.05$ . This means that there is an effect of providing leaflet media on mothers' knowledge about stunting prevention in Titi Papan Village, Medan Deli District in 2025. The results of the study showed that knowledge before being given counseling with leaflet media, respondents who had good knowledge were 42 people (44.7%), sufficient knowledge were 40 people (42.6%), and lack of knowledge were 12 people (12.8%). While knowledge after being given counseling with leaflet media, respondents who had good knowledge were 83 people (88.3%), sufficient knowledge was 11 people (11.7%), and lack of knowledge was 0 people (0.0%).

The results of the study showed that there were differences in the knowledge scores of respondents in the leaflet group. Knowledge about stunting in general increased. Evaluation of knowledge scores in the first session of health education through leaflet media is shown in the results of the pre-test to post-test. The table shows an increase in knowledge scores by all respondents. These results indicate that providing health education through leaflet media increases mothers' knowledge about stunting.

This research is in line with the results of Mawar Insdrawuti's 2022 research that providing health education through media *leaflet* has an effect on increasing knowledge and attitudes ( $p$ -value =  $0.000 < 0.05$ ) in preventing stunting in the Grogol sub-district(13). In line with the results of Aprilyani Gea's research in 2019, there was an influence of Health Education using leaflet media on the knowledge and actions of mothers of stunted PAUD children with research results ( $p$ -value =  $0.05$ )(14). In line with the research results of Rista Sewa, Marjes Tumurang, and Harvani Boky in 2019 that there is an influence of health promotion using leaflet media on knowledge and attitudes in preventing stunting with research results ( $p$ -value =  $0.05$ )(15). This is following research conducted by Misrina and Salmiati in 2021 that there was an increase in mothers' knowledge before and after being given health promotion with leaflet media. The average knowledge respondents before being given health promotion with leaflet media had

poor knowledge, namely 68 respondents (60%), and after counseling had good knowledge, namely 89 respondents (78%)(16). *Leaflets* is one of the printed media for delivering messages with folded sheets, easy to share, and can be stored and read repeatedly. Leaflet media has a simple form, easy to carry anywhere, the information presented is clear. The usefulness and advantages of leaflets are simple and very cheap, people can adjust and learn independently, users can see the contents at leisure, information can be shared with family and friends. Leaflets can also provide details such as statistics that are impossible if conveyed verbally(17).

*Leaflets* is a teaching aid that is compiled using simple language, easy to understand by the reader, can be widely distributed and is a useful way to convey information based on this, leaflets can be used as a medium for health education, for example, early prevention of stunting.(17).

Knowledge is a mediator of behavioral change. Although it is not absolute that good knowledge will produce good behavior. However, knowledge is the seed for a change in behavior towards the better. The results of this study indicate that an increase in the overall knowledge score occurred in the second counseling. This shows that in a longer period of time, discussions with leaflets have better knowledge retention than in previous meetings. This can happen because there is a closeness that is built well between the facilitator and participants so that the discussion atmosphere is fluid and the material can be absorbed more optimally. The closeness between the facilitator and participants can be built well because the number of participants is small in one discussion group. In discussions with leaflets, there is also the involvement of active participants throughout the intervention process.

### **Effectiveness of Leaflet Media on Mothers' Attitudes About Stunting Prevention in Titi Papan Village, Medan Deli District in 2025**

The results of the study statistically showed  $p = 0.000$  or  $<0.05$ . This means that there is an effect of providing leaflet media on mothers' attitudes about preventing stunting in Titi Papan Village, Medan Deli District in 2024. Based on the results of the study, showed that the attitudes of respondents before being given counseling using leaflet media, respondents who had negative attitudes 66 people (70.2%), and positive attitudes were 28 people (29.8%). While the attitudes of respondents after being given counseling using leaflet media, respondents who had negative attitudes were 37 people (39.4%) and positive attitudes were 57 people (60.6%).

The significant change in respondents' knowledge and attitudes about stunting was due to health education provided through the media. *leaflet*. This is following Notoadmojo's theory stating



that changing a person's attitude can be done through coaching through Health Education because it can increase knowledge so that it can respond to attitudes leading to better attitudes and behavior.(12)

Attitude is an evaluative statement toward an object, person, or event. Attitude is also a learned predisposition to respond positively or negatively to an object, situation, concept, or person. Factors that influence attitudes are personal experiences. Personal experiences are the basis for forming attitudes, personal experiences must leave a strong impression.(12)

According to Notoadmojo, attitudes are influenced by several factors, including personal experience, the influence of others, the influence of local culture, mass media, educational institutions/religious institutions, and emotional factors. Education is an effort to develop personality and abilities. The more information that comes in, the more knowledge is gained about health. A person's knowledge of an object also contains two aspects, namely positive and negative aspects. These two aspects will ultimately determine a person's attitude towards a particular object. The more positive aspects of an object that are known, the more positive attitudes will grow towards the object.(12)

## **CONCLUSION**

Based on the research that has been conducted, it can be concluded that after conducting there was a change in respondents' knowledge before and after the counseling with a significant level of  $p\text{-value} = 0.001$  and there was a change in respondents' attitudes before and after the counseling with a significant level of  $p\text{-value} = 0.000$  regarding stunting prevention in Titi Papan Village, Medan Deli District.

## **SUGGESTION**

It is hoped that this research will be useful for parents to be more active in paying attention to toddler food intake, health care, hygiene, and environmental sanitation around the child so that the child can achieve optimal growth and development.

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