

## Research Article

# The Effectiveness of Health Counseling using Scrapbook Media on Knowledge About Stunting Among Prospective Brides in Kampung Jawa Lama, Banda Sakti District, Lhokseumawe City

Murniati<sup>1</sup>, Cut Linar<sup>2</sup>, Mawarni Yunita<sup>3</sup>, Rahmad Mouliansyah<sup>4</sup>, Wulandari<sup>5</sup>

<sup>1</sup> Sekolah Tinggi Ilmu Kesehatan Darussalam Lhokseumawe, Lhokseumawe, Indonesia ; e-mail : [murniatimurni176@gmail.com](mailto:murniatimurni176@gmail.com)

<sup>2</sup> Sekolah Tinggi Ilmu Kesehatan Darussalam Lhokseumawe, Lhokseumawe, Indonesia ; e-mail : [cutlinar@gmail.com](mailto:cutlinar@gmail.com)

<sup>3</sup> Sekolah Tinggi Ilmu Kesehatan Darussalam Lhokseumawe, Lhokseumawe, Indonesia ; e-mail : [mawaryunita08@gmail.com](mailto:mawaryunita08@gmail.com)

<sup>4</sup> Sekolah Tinggi Ilmu Kesehatan Darussalam Lhokseumawe, Lhokseumawe, Indonesia ; e-mail : [nmatt51@gmail.com](mailto:nmatt51@gmail.com)

<sup>5</sup> Sekolah Tinggi Ilmu Kesehatan Darussalam Lhokseumawe, Lhokseumawe, Indonesia ; e-mail : [woelandarijaya@gmail.com](mailto:woelandarijaya@gmail.com)

\* Corresponding Author: Murniati

**Abstract:** The occurrence of short stature in toddlers, commonly referred to as stunting, is one of the main nutritional problems faced by toddlers in Indonesia today. The results of the Indonesian Nutrition Status Survey (SSGI) in 2022 for each province across Indonesia show that Aceh ranks fourth highest in stunting cases with a percentage of 31.2%. The first position is held by the province of West Sulawesi (35.0%), the second by Papua (34.6%), and the third by West Nusa Tenggara (32.7%). The lowest position is held by the province of Bali (8.0%), followed by the second lowest, DKI Jakarta (14.8%). This type of research is quantitative using the Quasi-Experimental design method with a Two-Group Pretest-Posttest Design. The sampling technique used was total population, consisting of 41 people in the intervention group and 41 people in the control group. The research results show that the average knowledge score about stunting in the intervention group is 28.30 and in the control group is 21.15854. Thus, descriptively, it can be concluded that there is a difference in the average knowledge score about stunting between the intervention group and the control group. The Sig. value of Levene's Test For Equality of Variances is  $0.573 > 0.05$ , so based on the value in the "Equal variances assumed" table, the Sig. (2-tailed) value is  $0.000 < 0.05$ , meaning the use of scrapbook media in health promotion regarding knowledge about stunting among prospective brides in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024 is declared effective. The use of scrapbook media in health counseling to increase knowledge among prospective brides in preventing stunting in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City is declared effective.

**Keywords:** health promotion, knowledge, scrapbook, stunting

## 1. Introduction

Nutrition is one of the determining factors for the optimal growth and development of children. Adequate and balanced nutrition is essential during the golden period of a child's growth and development [1]. The golden period begins when the child is still in the womb until the age of two, often referred to as the "first thousand days of a child's life." Nutritional deficiencies that occur during this golden period can lead to various problems, one of which is growth failure, causing the child to be shorter (stunting) than the standard [2]. The nutritional status of toddlers is an important matter that every parent should be aware of. The need for more attention to the growth and development of children in the toddler age is based on the fact that malnutrition during this golden period is irreversible, while nutritional deficiencies can affect the child's brain development. One of the health indicators assessed is

Received: 11 June , 2025

Revised: 25 June, 2025

Accepted: 09 July, 2025

Published: 11 July, 2025

Curr. Ver.: 11 July, 2025



Copyright: © 2025 by the authors.  
Submitted for possible open  
access publication under the  
terms and conditions of the  
Creative Commons Attribution  
(CC BY SA) license  
(<https://creativecommons.org/licenses/by-sa/4.0/>)

the nutritional status of toddlers. The nutritional status of toddlers is measured based on age, weight, and height [3].

Nutritional problems in toddlers under the age of 5 (toddlers) can have serious short-term and long-term impacts. Toddlers who suffer from malnutrition and undernutrition can experience morbidity, and in developing countries, malnutrition is one of the factors contributing to child mortality. In the long term, it can lead to chronic nutritional disorders or toddlers growing shorter (stunting) compared to their peers. This can lead to a decline in intelligence or cognitive abilities, increased morbidity, and a higher risk of non-communicable diseases (NCDs) in the future [4]. Presidential Regulation (Perpres) No. 42 of 2013 on the National Movement for Accelerating Nutritional Improvement was created as a form of government responsibility to enhance public knowledge and awareness of the importance of nutrition and its impact on improving the nutritional status of the community. The National Movement for Accelerating Nutritional Improvement is a joint effort between the government and the community through the organized and coordinated mobilization of stakeholder participation and concern to accelerate the improvement of community nutrition, prioritized during the first thousand days of life. Community nutrition improvement is expected to impact the reduction of stunting prevalence [5].

The occurrence of short stature in toddlers, often referred to as stunting, is one of the main nutritional problems faced by toddlers in Indonesia today. Stunting is a condition in toddlers that cannot develop due to chronic malnutrition, causing the toddler to be shorter than their age [6]. The lack of maternal knowledge about stunting is a risk factor for the occurrence of stunting in children [7]. With higher knowledge, mothers tend to have children with good nutritional status and vice versa. However, the current situation shows that mothers still have misconceptions about stunting knowledge and ignore its occurrence. Misconceptions and lack of knowledge among mothers will affect their behavior, especially in preventing stunting [8]. Many mothers are unaware of knowledge about stunting, especially in developing countries. The prevalence data of stunted children under five, collected by the World Health Organization (WHO) in 2019, indicates that the Southeast Asia region still has the highest prevalence of stunting (31.9%) in the world after Africa (33.1%). Indonesia ranks sixth in the Southeast Asia region after Bhutan, Timor Leste, Maldives, Bangladesh, and India, with a rate of 36.4%. Based on the Indonesian Toddler Nutrition Status Survey (SSGBI).

The government, through the National Team for the Acceleration of Poverty Reduction (TNP2K), has designated 100 priority regencies/municipalities for stunting reduction. Priority areas or regions that are the main focus of stunting intervention are those with a high prevalence of stunting compared to other regions. This is related to the budget allocated for addressing stunting. Priority areas for stunting intervention have a special budget specifically designated for acceleration programs in stunting mitigation and prevention [9]. The issue of stunting is one of the problems faced worldwide, especially in poor and developing countries. Stunting becomes a problem because it is associated with an increased risk of illness and death, suboptimal brain development, which in turn hampers motor development and mental growth [10].

Based on data from the Lhokseumawe City Health Office, the number of toddlers in 2021 was 36,310 toddlers, in 2022 it was 33,014 toddlers, and in 2023 it was 35,599 toddlers. Data related to stunting incidents in the Lhokseumawe City area in 2021 was 1,771 cases (4.9%), in 2022 it was 1,043 cases (3.2%), and in 2023 it was 739 cases (2.1%). It is evident that the decrease in the incidence rate each year is something that deserves appreciation. Then, for the incidence rate in the Banda Sakti Health Center Work Area in 2021, there were 50 cases, in 2022 there were 25 cases, and in 2023 there were 29 cases. The lack of knowledge among mothers about stunting. One of them is the lack of information, which significantly reduces the mother's knowledge. Another cause of mothers' lack of knowledge about stunting is that not all mothers with children under the age of 5 attend Posyandu. To increase mothers' knowledge about stunting prevention, one of the efforts to raise mothers' awareness of stunting risk factors is through health education (health promotion) ([6], [8]).

The role of the mother as the primary caregiver of her child is crucial, starting from purchasing to serving food. If the mother's knowledge is low, she is unable to select and serve food for the family that meets balanced nutritional requirements, putting the child at risk of stunting [11]. This is in line with the results of a recent community-based cross-sectional study in rural Ethiopia, which explains that mothers with little knowledge about children's nutrition are 5 times more likely to have stunted children than mothers with good knowledge. This means that the lower the mother's knowledge, the greater the risk of stunting, and conversely, the higher the mother's knowledge, the lower the risk of child stunting [12], [13], [14], [15]

In order to reduce the stunting rate, the community needs to understand the factors that cause stunting, and additionally, mothers' knowledge about how to prevent stunting needs to be improved [16]. One of the efforts to increase knowledge is through health education. Health education will have a positive effect if the process uses good methods and media. Health education is a process to enhance the community's ability to maintain and improve their health [17]. Efforts that can be made to increase knowledge about health include health education [18]. Health education can be conducted through several methods, namely: counseling, training, consultation, and through media. These five methods have their advantages and disadvantages. One of the media used can be in the form of print media, such as learning media in the form of scrapbooks, puzzles, and robotics.

## 2. Literature Review

Scrapbook, compared to other learning media, is the most frequently used medium because it has a significant impact on the improvement of mothers' knowledge. A scrapbook is a book that contains a collection of pictures, photos, stories, and notes arranged and organized attractively (in an album) or as a handmade book. Based on the research conducted by Hartateana, R (2022) titled "The Influence of Scrapbook Media Education on the Increase in Knowledge of Pregnant Women about Exclusive Breastfeeding," the research results show an increase in the knowledge of pregnant women about exclusive breastfeeding after being educated in both groups. Nurfa'izah, H (2023) also researched the influence of nutrition education using scrapbook media on the knowledge of meal planning and consumption levels of anemic pregnant women in the Working Area of Harapan Baru Health Center. The research results show that nutrition education using scrapbook media has an impact on the meal planning of anemic pregnant women.

The bride-to-be is a prospective mother; the bride-to-be must have a solid foundation of knowledge regarding her role as a mother who will give birth and nurture the next generation. Therefore, it is important to conduct health education related to stunting for prospective brides as a preventive measure against stunting occurrences. Based on the explanations above regarding the effectiveness of stunting education through scrapbook media, which can influence the increase in knowledge, the researcher is interested in conducting a study on "Is there an effect of health promotion using scrapbook media on the level of knowledge of prospective brides in preventing stunting in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City?" "Therefore, it is important to conduct health education related to stunting for prospective brides and grooms as a preventive measure against stunting occurrences. Based on the explanations above regarding the effectiveness of stunting education through scrapbook media, which can influence knowledge improvement, the researcher is interested in conducting a study on 'Is there an effect of health promotion using scrapbook media on the level of knowledge of prospective brides and grooms in preventing stunting in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City?'"

## 3. Proposed Method

The type of this research is quantitative using the Quasi-Experimental design method with a Two-Group Pretest-Posttest Design, namely the intervention group and the control group. This study uses the Pre-Experimental method because the requirements for experimental research are not sufficiently met, as there are no strict limitations on randomization [19]. The population in this study consists of prospective brides and grooms in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City, totaling 43 people in August 2024. The sample in this study is from Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City, totaling 40 people. In this study, the sample size for the intervention group is 20 people and for the control group is 20 people [20]. The instruments used in this study are the Health Counseling Method and Questionnaire. Data analysis is the activity of focusing, abstracting, and organizing data systematically and rationally to provide answers to problems [21]. Data is analyzed using the assistance of the software application program product and service solution (SPSS). In this study, two data analyses were used: univariate analysis and bivariate analysis.

## 4. Results and Discussion

### 4.1. Characteristics of the Respondent

The characteristics of the sample taken in this study include the mother's age, the toddler's age, education, occupation, income, and parity.

**Table 1.** Characteristics of the Respondent

No.	Characteristics of the Respondent	N (%)			
		Intervention		Control	
		n	%	n	%
1	<b>Age</b>				
	20-25 years	17	85	16	80
	26-30 years	3	15	4	20
	<b>Total</b>	<b>20</b>	<b>100</b>	<b>20</b>	<b>100</b>
3	<b>Education</b>				
	Primary	4	20	1	5
	Junior	12	60	14	70
	High	4	20	5	25
	<b>Total</b>	<b>20</b>	<b>100</b>	<b>20</b>	<b>100</b>

Based on Table 1, it is known that the majority of respondents in the intervention group of this study are aged 20-25 years, totaling 17 people (85%). The majority of respondents have an education level in the middle category, totaling 12 people (60%). The respondents in the control group of this study are aged 20-25 years, totaling 16 people (80%). The majority of respondents have an education level in the middle category, totaling 14 people (70%).

### 4.2. Knowledge Control Group

**Table 2.** Knowledge Control Group Test Result

Control Group	N	Std.Deviation	Mean	P	CI 95%	
					Lower	Upper
Pre-Test	20	4.40663	19.05	0,000	-2.87276	-1.2724
Post-Test	20	4.41618	21.15			

Based on the research results above, it is known that the summary of the descriptive statistical results of the average of the two samples studied, namely the pre-test and post-test, the pre-test value obtained an average of 19.05 and the post-test an average of 21.15. Because the average pre-test value < post-test value, it means that descriptively there is a difference in the knowledge of prospective brides about stunting before and after health counseling using a scrapbook. The p-value of  $0.000 < 0.05$  means that  $H_0$  is rejected and  $H_a$  is accepted, so it can be concluded that health counseling using a scrapbook on the knowledge of prospective brides about stunting prevention in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024 is declared effective.

### 4.3. Knowledge Intervention Group

**Table 3.** Knowledge Intervention Group Test Result

Intervention Group	N	Std.Deviation	Mean	P	CI 95%	
					Lower	Upper
Pre-Test	20	6.26	20.25	0,000	-9.74410	-6.35590
Post-Test	20	4.69	28.30			

Based on the research results above, it is known that the summary of the descriptive statistical results of the average of the two samples studied, namely the pre-test and post-test, the average pre-test score was 20.25 and the post-test score was 28.30. Because the average pre-test score < post-test score, it means that descriptively there is a difference in the knowledge of prospective brides about stunting prevention before and after health counseling without using a scrapbook and using a PPT. The p-value of  $0.000 < 0.05$  means that  $H_0$  is rejected and  $H_a$  is accepted, so it can be concluded that health counseling without using a scrapbook on the increase in mothers' knowledge about stunting prevention in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024 is declared effective.

#### 4.4. Differences in Knowledge After Health Counseling Between the Intervention Group and the Control Group

**Table 4.** Differences in Knowledge Two Group

Group	N	Std.Deviation	Mean	P	CI 95%	
					Lower	Upper
Intervention	20	4.69	28.30	0,000	4.55576	8.56619
Control	20	4.41	21.15			

Based on 4.5, it is known that the number of knowledge data results for the intervention group is 20 and for the control group is 20. The average knowledge score about stunting for the intervention group is 28.30 and for the control group is 21.15. Thus, descriptively, it can be concluded that there is a difference in the average knowledge results about stunting between the intervention group and the control group, and the average score of the intervention group is higher than that of the control group. The significant value of Levene's Test For Equality of Variances is  $0.573 > 0.05$ , which means that the variance of the data between the intervention group and the control group is homogeneous or the same. Therefore, the interpretation of the Independent Sample Test output table above is based on the value found in the "Equal variances assumed" table, which is a p-value of  $0.000 < 0.05$ , meaning  $H_0$  is rejected and  $H_a$  is accepted. Thus, it can be concluded that health education using scrapbook media on increasing the knowledge of prospective brides about stunting in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024 is declared effective.

#### 4.5. Discussion

The research conducted in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024 found that the majority of respondents in the intervention group were aged 20-25 years, totaling 17 people (85%). The majority of respondents had an education level categorized as intermediate, totaling 12 people (60%). The respondents in the control group were also aged 20-25 years, totaling 16 people (80%). The majority of respondents in this group had an education level categorized as intermediate, totaling 14 people (70%).

Based on the research results, it was found that the characteristics of respondents in both the intervention and control groups were mostly in the same category, making the research results more optimal due to having homogeneous or similar respondents. In this study, it was found that the age of the prospective brides and grooms falls within the 20-25 year age category, which is a productive age and poses no risk for the process of pregnancy and childbirth. The respondents in this study also mostly have a high level of education, which greatly optimizes the research results because this study is related to health promotion, thus linking education with the health promotion process.

This is in line with Lawrence Green's theory in Notoatmodjo (2012) that predisposing factors in a person's health behavior are determined by individual characteristics such as age, education, occupation, attitude, knowledge, and culture (tradition). Behavior is the result of individual characteristics and their environment, which is formed when beliefs and convictions about an object support that behavior and are shaped through a positive attitude towards that behavior. Behavior is also greatly influenced by good knowledge, which is in turn influenced by several factors such as education, mass media/information sources, socio-economic status, environment, and age.

Based on the research conducted in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024, the number of knowledge data results for the intervention group was 20 and for the control group was 20. The average knowledge score about stunting for the intervention group was 28.30 and for the control group was 21.15. Thus, it can be statistically concluded that there is a difference in the average knowledge results about stunting between the intervention group and the control group, with the average score of the intervention group being higher than that of the control group. The significant value of Levene's Test For Equality of Variances is  $0.573 > 0.05$ , which means that the data variances between the intervention group and the control group are homogeneous or the same. Therefore, the interpretation of the Independent Sample Test output table above is based on the value in the "Equal variances assumed" table, which is a p-value of  $0.000 < 0.05$ , meaning  $H_0$  is rejected and  $H_a$  is accepted. Thus, it can be concluded that health education using scrapbook media

on increasing the knowledge of prospective brides about stunting in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024 is declared effective.

Based on the research results, it was found that both the intervention group and the control group experienced an increase in knowledge among prospective brides after health promotion, whether using a scrapbook or not. However, in this study, health promotion using a scrapbook showed a more significant increase in knowledge compared to not using a scrapbook. This can be proven by the average values before and after health promotion, which can be seen in tables 4.10 and 4.13 that clearly show the numbers. This increase in knowledge is because during the health promotion using scrapbooks, the respondents were more enthusiastic as they were also provided with an interesting book that had images and text that were easy to remember and appealing in terms of both images and text, which were more concise and clear.

This is in line with the theory of Azyura, EN & Mulyani (2018) regarding the advantages of scrapbooks, which include the fact that scrapbook media has an attractive appearance because scrapbooks are made from various images that are combined and arranged in such a way as to pay attention to beauty. Scrapbooks are made from materials available in the surrounding environment, the materials are easy to obtain, and the process of making them is not difficult, so both children and adults can create scrapbooks. In general, scrapbooks have the same size as books, which makes them easy to carry and store. However, scrapbooks themselves come in various shapes. Realistic in showing the main topic, a scrapbook can depict an object that looks real through images and photos. Thus, we will find it easier to remember it. With the presence of a scrapbook, it can be one of the solutions for the many events or objects that are difficult to see directly [22].

## 6. Conclusions

Based on the research conducted in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024, it was found that health education using scrapbook media on increasing prospective brides' knowledge about stunting is effective. In the intervention group, it was found that the average pre-test score < post-test score, which means there is a difference in the knowledge scores of prospective brides who were given scrapbook media compared to those who were not given it in Kampung Jawa Lama Village, Banda Sakti District, Lhokseumawe City in 2024.

It is recommended that respondents use the results of this research as evaluation material for the community, especially prospective brides and grooms, to enhance their knowledge and information about stunting prevention, thereby increasing understanding and positively changing behaviors to prevent stunting. It is also hoped that this can serve as evaluation material for healthcare workers, particularly in child and toddler services, to improve the quality of health education provided about stunting. The education and counseling provided emphasize prevention so that the incidence of stunting in Aceh can be reduced.

**Conflicts of Interest:** The authors declare no conflict of interest

## References

- [1] Yuliana, & Hakim. (2019). Darurat stunting dengan melibatkan keluarga. Yayasan Ahmar Cendikia Indonesia.
- [2] Teja, M. (2019). Stunting balita Indonesia dan penanggulangannya. Bidang Kesejahteraan Sosial Info Singkat.
- [3] Solikhah, R., & Yuniastuti. (2017). Faktor-faktor yang berhubungan dengan status gizi balita di pedesaan dan perkotaan. *Public Health Perspective Journal*.
- [4] Utami, N. (2019). Masalah gizi balita dan hubungannya dengan indeks pembangunan kesehatan masyarakat. *The Journal of Nutrition and Food Research*.
- [5] Nisa, L. (2018). Kebijakan penanggulangan stunting di Indonesia. *Jurnal Kebijakan Pembangunan*.
- [6] Kementerian Kesehatan Republik Indonesia. (2021). Profil kesehatan Indonesia 2020.
- [7] Kotzias, K., Bukhsh, F. A., Arachchige, J. J., Daneva, M., & Abhishta, A. (2023). Industry 4.0 and healthcare: Context, applications, benefits and challenges. *IET Software*, 17(3), 195–248. <https://doi.org/10.1049/sfw2.12074>
- [8] Ramdhani, H., Handayani, S., & Setiawan, D. (2020). Hubungan pengetahuan ibu dengan kejadian stunting.
- [9] Saputri. (2019). Upaya pemerintah daerah dalam penanggulangan stunting di Provinsi Kepulauan Bangka Belitung. *Jurnal Dinamika Pemerintahan*.

- [10] Arsyati, A. (2019). Pengaruh pendidikan kesehatan dengan media lembar balik tentang pencegahan stunting pada calon pengantin. *Jurnal Mahasiswa Kesehatan Masyarakat*, 2(3).
- [11] Maulu, S., Nawanzi, K., Abdel-Tawwab, M., & Khalil, H. S. (2021). Fish nutritional value as an approach to children's nutrition. *Frontiers in Nutrition*, 8, 780844.
- [12] Candra, A. (2020). Pencegahan dan penanggulangan stunting [Prevention and mitigation of stunting]. In *Epidemiologi Stunting*.
- [13] Noorkasiani, & Ismail. (2010). *Sosiologi keperawatan*.
- [14] Maulana. (2009). *Promosi kesehatan*. EGC.
- [15] Kisman, Munir, & Banudi. (2020). Pengaruh pemberian metode penyuluhan terhadap pengetahuan calon pengantin tentang stunting. *Media Gizi Pangan*.
- [16] Husnaniyah, D., Yulyanti, D., & Rudiansyah. (2020). Hubungan tingkat pendidikan ibu dengan kejadian stunting [The relationship between maternal education level and stunting]. *The Indonesian Journal of Health Science*, 12(1), 57–64.
- [17] Hardayanti, D. A., Ramadhan, K., Suharto, D. N., & Agusrianto, A. (2021). Edukasi persiapan persalinan yang aman di era Covid-19: Education for safe delivery preparation in the Covid-19 era. *Madago Community Empowerment for Health Journal*, 1(1), 21–25. <https://doi.org/10.33860/mce.v1i1.660>
- [18] Notoatmodjo, S. (2012). *Metodologi penelitian kesehatan tahun 2012*. Tipe Pembawa.
- [19] Notoatmodjo, S. (2010). *Metodologi penelitian kesehatan [Health research methodology]*. Rineka Cipta.
- [20] Hidayat, A. A. (2009). *Metode penelitian keperawatan dan tehnik analisa data*. Jakarta: Salemba Medika.
- [21] Suryana, E., Wulandari, S., Sagita, E., & Harto, K. (2022). Perkembangan masa remaja akhir (tugas, fisik, intelektual, emosi, sosial dan agama) dan implikasinya pada pendidikan. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 5(6), 1956–1963. <https://doi.org/10.54371/jiip.v5i6.664>
- [22] Sewa, Tumurang, & Boky. (2019). Pengaruh promosi kesehatan terhadap pengetahuan dan sikap dengan tindakan pencegahan stunting oleh kader posyandu di wilayah kerja Puskesmas Bailang Kota Manado. *Jurnal Kesmas*.