

## The Effect Of Education Through Diary Stunting Prevention Against Strengthening Mother's Knowledge In A Family Camp Of High Quality Charity (A Case Study On The Tribe Of Ahe)

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### ARTICLE INFO

### ABSTRACT

#### Keywords:

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Bengkayang is a district contributing to stunting cases in West Kalimantan, at 30.1% by 2022. The figure has increased compared to the previous year. The majority of the population in this district is the Ahe Dayak tribe, with an average level of secondary to lower education, i.e., no SD, SD, or SLTP graduates. It can affect public understanding, especially among young mothers, of stunting prevention efforts. One of the priority stunting villages in the district is Tumiang Village, which is in the category of Quality Family Village (Kampung KB) with remote access to health services. These factors are determinants of the intensity of health services from the local health force, so it is necessary to make an effort to improve education for young mothers in the prevention of stunting. The study aims to analyze the impact of education through the Stunting Prevention Diary on the improvement of Mother Balita's knowledge in Quality Family Village. The design used was quasi-experimental, with a one-group pretest and posttest. Samples of as many as 30 mothers who have news and are in the village of Tumiang Samalantan Prefecture were taken by purposive sampling. The measurement was done twice over a month of intervention using the Stunting Prevention Diary media. The data was analyzed using a pair T test ( $\alpha = 95\%$ ). The results of the study showed that the majority of young mothers are unemployed (playing as a householder of 53.5%), the job of the head of the family is a farmer/manager/garden worker (80%), the educational level of the mother is SLTP and SLTA (36.7%), and the family income under UMK Bengkayang district was 70%. The knowledge score of the respondents increased from 9.40 to 12.83. The intervention provided is educational through the media. Diary Prevention Stunting is effective in improving the knowledge of the mother of the newborn. Thus, it can be concluded that the education of stunting prevention using the media Diary stunting prevention has an influence on the improvement of mothers' knowledge and can be used as one of the examples of health promotion efforts in order to accelerate the decline in stunting in Bengkayang district.

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### 1. INTRODUCTION

This adult stunting case has become a very serious global problem, especially in Indonesia. This is because stunting can affect health and economic productivity in the future [1]. In the short term, stunting can lead to a high risk of morbidity, mortality, low intellectuality, and cognitive abilities, while in the long term, stopping can affect the quality of human resources and the emergence of degenerative diseases [2]. Stunting is a child's growth and development disorder caused by chronic malnutrition and recurrent infections, characterized by length or height being below the standards set by the minister who organizes government affairs in the health field [3]. Stunting incidence in Indonesia is linked to determining factors such as gender, premature birth, exclusive breastfeeding,

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maternal height, mother's education, household socio-economic status, housing conditions, shelter availability, drinking water treatment, access to health services, and residence in the countryside [4].

By 2022, 148.1 million (22.3 percent) children under the age of five had stunts. More than half of these stunts were in Asia (52.0 percent) [5]. Especially in Southeast Asia, stunting cases are known to be higher in Indonesia than in Laos, Cambodia, the Philippines, Myanmar, and Vietnam [6]. stunting incidence in Indonesia with a very high category; Laos, Cambodia, the Philippines, and Myanmar with high categories; as well as Vietnam with a medium category stopping incidence [5].

Many countries in the world are currently trying to meet the World Health Assembly's (WHA) target of reducing the global prevalence of stunting by 40% [7]. By 2025, the global prevalence of stunting cases is expected to be in the range of 16.4% [8]. In Indonesia, through the 2020–2024 National Medium-Term Development Plan, the government aims to reduce the prevalence of stunting to 14% [3]. The government is very optimistic about the target, as in the course of 10 years it has been able to reduce the prevalence of stunting by 16.0%. Whereas according to RISKESDAS results in 2013, the national prevalence of stunting increased from 37.6% to as much as 21.6% based on the results of the Nutrition Status Survey of Indonesia in 2022 [9]. However, not all regions can contribute to the decline in stunting in Indonesia.

One of the districts of the province of West Kalimantan did not have a single decline in Bengkayang district. The results of the Gizi Status Survey in 2021 showed 26.8% of stunting cases compared to 30.1% in 2022. That is, there was an increase of 3.3%. Therefore, Bengkayang district became the focus of the stoppage. In this study, the researchers will focus on the Tumiang village in the Samalantan district of Bengkayang, due to the highest prevalence of stunts compared to other villages. Tumiang Village is a quality family village, and the majority of its inhabitants are Dayak Ahe. Most of the people with the main job are farmers and have a low level of education (they have not graduated from SD or SLTP).

The Indonesian government has established nutrition-sensitive intervention activities that can contribute to the reduction of stunting in these areas by providing nutrition support to the public [1]. Nutrition education has a role to play in improving mothers' knowledge. It's because her knowledge will influence her attitude toward monitoring her growth by giving her a balanced diet according to her nutritional needs [10]. Therefore, efforts to improve mothers' nutritional knowledge are needed in the treatment and prevention of stunting [11]. Enhancement of nutritional knowledge can be done with a variety of methods and media [12], mobile edu app [13], conventional and e-book [14], Diary Book [15], booklet [16], And so on. Of these methods, the educational method used in this research is the diary book method.

The selection of diaries is due to conditions in the village of Tumiang where it is still difficult to access the internet, not all mothers have mobile phones, and the health services are not settled in those locations. In addition, according to the admitted respondents, it is known that respondents find it easier to understand information by reading books than by any other method. The diary book was given to respondents, containing stunting material, grown-up monitoring sheets, and age-specific PMBA menu recommendations. Based on the above description, the purpose of this study is to analyze the influence of education (nutrition education) through the diary book method on the improvement of knowledge of young mothers in the Quality Family Village of Bengkayang District.

## 2. METHOD

The method used in this research is the experimental quasi-quantitative method, with a design of one group pretest and posttest. Population and target is the mother who has balita aged 6-59 month and is in Quality Family Village, Tumiang Village Samalanan, Bengkayang District. A sample of 30 young mothers was taken as a purposeful sampel. The initial sample collection of the respondent's characteristic was conducted through a live interview using a questionnaire. The knowledge variable of the young mother in stunting prevention is measured twice, i.e., before and after the intervention. The form of intervention given is education to the mother about stunting prevention using the media's stunting prevention diary. The duration of the intervention is carried out of for 1 month, with the submission of material periodically, as many as four times during the time of the intervention. The instrumen used is a pre- and post-test questionnaire that contins information about the knowledge of

the mother of the young about stunting and its prevention. Pre-test questionnaires are given to respondents at the beginning of the time before the intervention, while post-test quizzes are given at the end of the period of intervention. The data obtained was analyzed descriptively to obtain information on the frequency distribution of each variable in the study. The data was then analyzed using the paired sample t-test to determine the difference between the mother's knowledge before and after the intervention ( $\alpha = 95\%$ ).

### 3. RESULTS AND DISCUSSION

The research was conducted in Quality Village, located in Tumiang Village, Samalantan Prefecture, Bengkayang District, West Kalimantan Province. The village is a merger of four villages, namely Kampung Sabah, Kampung Padang, Kampung Sake, and Kampung Sangkinahu. Since Bengkayang district became the focus of stunting handling, the selection of Tumiang Village as the site of intervention was challenged by the high prevalence of stunting cases compared to other villages.

The study respondents were mothers who had babies aged 6–59 months and met the inclusion criteria, so the total number of respondents was 30. The first meeting was held in October, at which the researchers socialized and performed a pretest before the nutrition education intervention through the diary book. The diary book given to respondents in design for easy transportation contained educational material related to flowering and stunting presented with gamba and explanatory sentences simple but clear, available news flowering monitoring sheets to monitor height and weight, and there are recommendations for the PMBA menu using local food adapted to the age of the young. Next, the nutrition education intervention through the diary book was carried out for a month.

**Table 1.** Variable Characteristic

<b>Mothers Job</b>	<b>F</b>	<b>%</b>
Not Working	16	53.3
Wiraswasta	2	6.7
Farmer/workers	10	33.3
Nurse	1	3.3
Others	1	3.3
<b>Fathers Job</b>		
Not Working	3	10.0
Wiraswasta	2	6.7
Farmer/workers	24	80.0
Nurse	1	3.3
Others	0	0
<b>Mother Last Education</b>		
Unfinished SD	3	10.0
Finished SD	3	10.0
Finished SLTP/MTs	11	36.7
Finished SLTA/MA	11	36.7
<b>Mother Last Education</b>		
Diploma (D1/D2/D3)	1	3.3
S1 Finished	1	3.3
<b>Income</b>		
<UMK	21	70.0
>=UMK	9	30.0

<b>Age</b>		
Average	30.36	
Older	58	
Youngest	2	
<b>Gender</b>		
Male	16	53.3
Female	14	46.7
<b>History of infectious diseases</b>		
Diare	1	3.3
ISPA	3	10.0
TBC	2	6.7
ISPA and Diare	3	10.0
Others	1	3.3
Nothing	20	66.7
<b>Gizi Status</b>		
Stunting	14	46.7
Not Stunting	16	53.3

Table 1 shows that most young mothers are unemployed (53.43%), fathers work as farmers/workers/gardeners (80.0%), mothers have an education of SLTP/MTS and SLTA/MA (36.7% each), and families have less income than UMK (70.0% each). In addition, information was also obtained on the average youth age of 30 months: the male youth (53.3%) are older than the female youth (46.7%); as many as 10 (33.3%) youth have a history of infectious diseases; and as many as 14 (46.7%) children are stunting. The number of questions on the questionnaire sheet is 15. At the time of the test, the minimum score is 6 and the maximum score is 15.

**Table 2.** Results of Pre Test and Post Test Achievement Analysis Before and After Stunting Educational Test

		Mean	N	Std. Deviation	T	df	Sig. (2-tailed)
Pair 1	Pre-Test	9.40	30	1.380	-7.972	29	.000
	Post-Test	12.83	30	2.151			

Table 2 shows that the pre-pretest and post-post-test knowledge scores were given nutrition education through the diary book based on an average of 9.40 at the time of the pretest and 12.83 at the moment of the post-test, with an increase of 3.43. To find out the difference between the intervention scores before (pretest) and after (posttest), nutrition education was given through the diary book, and then a statistical T-Pair test, i.e., a paired samples T-test, was performed. Based on the test results, the p values are known to be = 0,000 or  $< \alpha$  0,05. In other words, there is a significant difference between intervention scores before (pretest) and after (posttest) given nutrition education through the Diary Book to the mother of the newspapers in the Quality Family Village of Bengkayang district.

The research was conducted directly with the public at the Tumiang Village Head Office. Interventions in the education of stunting knowledge in this research are carried out at all stages. The initial stage is the collection of mothers who have stunting news, and then the researchers tell the intentions and purposes directly to the mothers willing to be samples for this research. After that, the mother was asked to fill out a pre-test questionnaire on nutrition education, feeding babies and children, and measuring nutritional status. It took her about 15–30 minutes to fill out the pretest. After filling out a pretest questionnaire, the researchers educated stunting mothers and gave them the media of the Important Diaries so that they could be read at any time whenever the mother needed it. The exhibition was carried out by the researchers using diary media to facilitate access to information about stunts in newspapers. This is because the connections and networking systems in the village of Tumiang are still inadequate, so the mother of the newspapers is given the media-important diary

book that is easy to take anywhere and contains education accompanied by pictures as well as a simple but clear explanation of how stunting prevention efforts should be.

This is in line with the study of Rehena Dkk (2021), which shows that there is an improvement in mothers' knowledge after obtaining nutritional education on the understanding of stunting, the factors that cause stunting, and how to prevent and combat stunting in young children [17]. Stunting education effectively improves the knowledge and attitude of mothers who have news about stunting prevention. It takes an effort to provide continuous understanding so that mothers better understand stunting problems and their prevention, especially in the provision of nutritious food.

Parental education is very influential in educating the news so that the news can develop optimally against the development of their status, because the level of education of the parents greatly influences the levels of knowledge in terms of educating and caring for children that will influence the application of patterns of nursing [18].

With the presence of stunting prevention education, using the diary book media encouraged respondents to better understand and know what stunting is, to know the growing flowers of news through the monitoring sheet, and to know a healthy menu appropriate to the age of news. An improved mother's knowledge is essential in the process of growing the baby [19]. Mother's knowledge can determine mother's attitude and behavior in stunting prevention [20]. Prevention of stunting begins with giving a good pattern of care to the young. A mother who has a good caring pattern will be able to provide attention, support, and good behavior to support improvement of health or nutritional improvement by paying attention to eating, providing nutritious and healthy food, implementing self-hygiene and children, as well as taking advantage of health services [21].

#### 4. CONCLUSION

The results of research in Quality Family Village, especially for the mother in Tumiang Village, showed that there was an increase in the ratio of the mother's knowledge scores before and after the intervention, which was 9.40 and increased to 12.83. Interventions provided in the form of education through the Media Stunting Prevention Diary were carried out within a period of one month. The results showed that there was a difference in the knowledge score of the mother of the newborn before and after the intervention ( $p$  value = 0.000), which means that the education provided through the diary stunt prevention was effective in improving the knowledge of the young mother. The effort was one of the health promotion efforts to accelerate the decline of stunting in Quality Family Village, Tumiang Village, Samalantan Prefecture, and Bengkayang District.

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