



The Influence of Health Education with Pocket Books on Mothers' Knowledge Level Regarding Stunting in Kasilib Village

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ABSTRACT

Stunting is a condition where toddlers have less height compared to their age. Data on the prevalence of stunting under five children collected by the World Health Organization (WHO) 2018 shows that Indonesia is included as the third country with the highest prevalence in the South East Asia Regional (SEAR). This research aims to determine the effect of health education with pocketbooks on mothers' level of knowledge about stunting in Kasilib Village. The research was conducted in March 2023. This research is quantitative research, with a Pre-Experiment type of research, using a One Group Pretest Posttest Design approach. The sampling technique used was accidental sampling with a total sample size of 132 mothers. The statistical test used is the Paired T-test. The results of the study stated that the level of maternal knowledge before health education was carried out was 72 respondents (53.8%) had sufficient knowledge about stunting and 95 respondents (72%) had good knowledge about stunting after health education. The results of the Paired T-Test obtained a value p value $0.000 < 0.005$, which means there is an influence of health education with pocketbooks on the level of knowledge of mothers about stunting in Kasilib village. Integrated Healthcare Center cadres in the Kasilib Village working area can provide regular health education regarding stunting.

Keywords: *Stunting, Mother's Level Of Knowledge, Health Education*

1. INTRODUCTION

According to the World Health Organization (WHO), stunting is a condition in which a child's height under the age of 5 is lower than the desired height for a specific age, with a height-for-age (HAZ) score below -2 standard deviations (SD). Toddlers are considered short if they have a Z-Score below -2 SD and very short if they have a Z-Score below -3 SD (WHO, 2018). This condition indicates that the child is experiencing chronic growth impairment due to inadequate nutrition, recurrent infections, and inadequate care during

the first 1000 days of life, which is the period from pregnancy to the age of two. This is also represented by the Z-Score values based on the HAZ indicator falling below -2 SD (Rahayu et al. 2018).

According to the World Health Organization (WHO) in 2018, Indonesia ranks third in terms of the highest prevalence of stunting among children under 5 years old in the Southeast Asian region (SEAR). Indonesia had an average stunting rate among children under 5 years of 36.4% between 2015 and 2017 (Arnita, Rahmadhani, & Sari 2020).

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The 2018 Basic Health Research (Riskesdas) revealed that the stunting rate in Indonesia was 30.8 (Kemenkes RI, 2018). Based on the Indonesian Toddler Nutrition Study (SSGI) in 2022, it was found that out of 34 regencies/cities in Central Java, 14 had a higher proportion of children under 5 years experiencing stunting compared to the provincial average. There were 21 other regencies/cities with lower incidence rates than the provincial average. Banjarnegara was ranked 15th among the provinces in Central Java. There are 20 sub-districts in the Banjarnegara regency, and the village of Kasilib is located within the Wanadadi sub-district.

Factors that can lead to stunting include poor nutrition in pregnant women and toddlers, a lack of maternal knowledge during pregnancy, limited access to healthcare services, insufficient nutritional information for newly walking children, limited access to nutritious food, clean water, and sanitation. Parents, particularly mothers, play a crucial role in providing nutrition to toddlers since children still require care and support to cope with their rapid growth and development (Kemenkes PDDT, 2017).

This is consistent with a study conducted by (Susilowati & Himawati 2017) which found that the majority of mothers with good knowledge about nutrition to support their child's growth had a rate of 83.1%, higher than mothers with low knowledge at 54.76%. A mother's knowledge can significantly influence a child's growth and developmental status (S, Efni & Marlita 2020).

The occupation factor can also influence one's knowledge. Those who have jobs often tend to possess deeper knowledge compared to those who are unemployed because they have more access to information while working. Another contributing factor is the low educational level of mothers, as lower maternal education is associated with limited knowledge about child nutrition (Amelia 2020).

Education is a systematic and organized process or effort aimed at developing human potential in various aspects of life. Education can take on a formal or informal

approach, with the goal of enhancing an individual's skills (Fauzi, Wahyudin, & Aliyah 2020).

The prevention of stunting can be achieved by increasing maternal knowledge about stunting through pocket-sized educational materials. The role of media in health education serves as a visual aid for disseminating health information and messages. Pocket-sized books are simple yet effective tools as they are portable, compact, and easy to study.

Health education can influence an educational process that leads to achieving optimal goals. Health education also impacts learning by enabling individuals to acquire knowledge and feel empowered to enhance their behavioral capacities to achieve health objectives (Fadyllah & Prasetyo 2021). Educational media such as pocket-sized books in health education are used as instructional tools to convey information and messages about stunting, including its definition, causes, characteristics of stunted children, the consequences of stunting, and preventive measures (Astuti, Puspita Sari, & Felle 2019).

This is consistent with a study by Azadirachta & Sumarmi (2017), which asserts that community engagement using the pocket-sized book method is effective in enhancing an individual's knowledge.

Based on a preliminary study conducted in Kasilib Village through the distribution of a questionnaire comprising 16 questions to 10 mothers with children under 5 years of age, the results showed that 3 out of 10 mothers had a good understanding of stunting. These mothers could provide correct answers regarding what stunting is, its causes, and the potential consequences of stunting. In contrast, 7 out of 10 mothers had limited knowledge about stunting. They only knew what stunting is but were unaware of its causes and the effects of stunting on children. These mothers also perceived short stature in toddlers as not being a matter of concern. Regarding children's dietary habits, mothers paid insufficient attention to the nutritional content consumed by their children, and the children tended to prefer snacks over regular meals.

The study was conducted in the Posyandu Kasilib working area, which consists of four Posyandu (Integrated Health Service Posts), from March 6 to March 16, 2023. A pretest was conducted at the beginning before the health education using pocket-sized books. Following the pretest, the health education activity using pocket-sized books was carried out, and upon its completion, a posttest was conducted.

Based on the description above, the researcher formulated the problem with the title "The Influence of Health Education with Pocket-Sized Books on Mothers' Knowledge about Stunting in Kasilib Village." The objectives of this study are to determine the characteristics of the respondents (mothers' education and occupation), to assess the mothers' knowledge before receiving health education with pocket-sized books regarding child stunting in Kasilib Village, Wanadadi District, Banjarnegara Regency, and to evaluate the mothers' knowledge after receiving health education with pocket-sized books about child stunting in Kasilib Village, Wanadadi District, Banjarnegara Regency. The study also aims to analyze the impact of health education using the pocket-sized book method on mothers' knowledge levels about child stunting in Kasilib Village, Wanadadi District, Banjarnegara Regency.

2. RESEARCH METHODS

This study is a quantitative research, specifically a Pre-Experimental design, utilizing the One-Group Pretest Posttest Design approach. The sample was selected using the Slovin formula, resulting in a total sample size of 132 mothers. Sampling was conducted using Accidental sampling, with the inclusion criteria being mothers with children under 5 years of age, and the exclusion criteria being mothers with physical limitations (deafness, blindness, or illness). The research was carried out within the working area of Posyandu in Kasilib Village, Wanadadi District, Banjarnegara Regency, which includes four Posyandu: Pucung Jaya I, Pucung Jaya II, Pucung Jaya III, and Pucung Jaya IV.

The research instrument used was a questionnaire with 16 questions related to

stunting and a stunting pocketbook provided to the respondents. The questionnaire's validity was confirmed with calculated values (0.452-0.848) > tabulated value (0.444), indicating that all questions were deemed valid. Data were analyzed through univariate and bivariate analysis. Bivariate analysis employed a Paired T-Test to examine the relationship between the independent variable (Health Education with Pocket-Sized Books) and the dependent variable (Mothers' Knowledge Level). The research was conducted with ethical clearance, documented with reference number B.LPPM UHB/1568/03/2023. Data processing included editing, scoring, coding, data entry, data tabulation, processing, and data cleaning, all performed using the SPSS software application.

3. RESULT AND DISCUSSION

3.1 RESULTS

3.1.1 Characteristics of Respondents Based on Education and Occupation in Kasilib Village

Tabel 1. Frequency Distribution of Respondents' Characteristics Based on Education and Occupation (n=132)

Variable	Frequency (F)	Percentage (%)
Education		
SD	13	9.8 %
SMP	28	21.2 %
SMA	69	52.3 %
Diploma	12	9.1 %
Bachelor	10	7.6 %
Occupation		
Employed	50	37.9%
Unemployed	82	62.1 %

Based on Table 1, it can be observed that the characteristics of the respondents based on education indicate that the highest number of respondents have completed senior high school (SMA), with a total of 69, representing 52.3%. In terms of occupation, 50 respondents (37.9%) are employed, while 82 respondents (62.1%) are unemployed.

3.1.2 Mothers' Knowledge Before Receiving Health Education with Pocket-Sized Books on Child Stunting in Kasilib Village

Tabel 2. Frequency Distribution of Respondents' Characteristics Based on Mothers' Knowledge Level in the Pretest

Knowledge Level	Pretest	
	Frequency	Percentage
Less (0-7)	50	37.9%
Sufficient (8-11)	71	53.8%
Good (12-16)	11	8.3%
Total	132	100%

Based on Table 2, the identification of mothers' knowledge levels before receiving health education about stunting is as follows. In the pretest, 71 respondents, accounting for 53.8% of the total, possessed sufficient knowledge about stunting. The majority of the respondents had a moderate level of knowledge about stunting.

3.1.3 Mothers' Knowledge After Receiving Health Education with Pocket-Sized Books About Child Stunting in Kasilib Village

Tabel 3. Distribution of Respondent Characteristics Based on Mothers' Knowledge Level in the Posttest

Knowledge Level	Posttest	
	Frequency	Percentage
Age (0-7)	0	0
Sufficient (8-11)	37	28%
Good (12-16)	95	72%
Total	132	100%

According to Table 3, the identification of mothers' knowledge levels after receiving health education about child stunting is as follows. In the posttest, 95 respondents, representing 72% of the total, demonstrated good knowledge about stunting. The majority of the respondents had a good understanding of stunting.

3.1.4 Analysis of the Influence of Health Education with Pocket-Sized Books on Mothers' Knowledge Level about Child Stunting in Kasilib Village

Tabel 4. Results of the Paired T-Test

Variable	N	Mean	Std. Deviation	P-value
Pretest-Posttest	132	-4.33333	1.60945	0.000

Based on Table 4, it can be concluded that the p-value (0.000) is less than 0.05. This means that the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted. In other words, there is an influence of health education with pocket-sized books on mothers' knowledge about child stunting in Kasilib Village, Wanadadi District, Banjarnegara Regency.

3.2 DISCUSSION

3.2.1 Characteristic Respondents

Based on Table 4.1, the respondents in this study are mothers with children under 5 years of age in the Posyandu Kasilib working area in March 2023. The total number of respondents is 132 mothers. The results indicate that the majority of the respondents have completed high school (SMA), with 69 mothers, accounting for 52.3%.

Education is a conscious and systematic effort undertaken by individuals to influence children to develop characteristics and personalities that align with educational goals. Education can be pursued through formal and informal means. The purpose of undergoing training is to develop an individual's skills and acquire new knowledge, including knowledge about health. Health knowledge significantly influences a person's healthy behaviors and child development. A mother with good nutritional knowledge, supportive attitudes, and positive behaviors will have an impact on a child's growth and development, leading to good health. (Fauzi et al. 2020).

A mother's education forms the foundation for good nutrition in toddlers. The level of a mother's education is closely linked to her ability to receive external information about

nutrition and health. Mothers with higher levels of education find it easier to access information from external sources compared to those with lower levels of education (Kholia et al. 2020).

This is consistent with research conducted by (Husnaniyah et al. 2020) which established a correlation between a mother's level of education and the prevalence of child stunting in the working area of the Kandanghaur Community Health Center in Indramayu. The knowledge level of mothers plays a pivotal role in the incidence of stunting in children. Expectant mothers are encouraged to enhance their formal education, as education provides a practical means for mothers to absorb health-related information.

Regarding the respondents' occupations, it was observed that the majority of them are not employed and are homemakers (housewives), totaling 82 individuals, representing 62.1%. Employment status significantly influences knowledge, as individuals who work tend to possess broader knowledge compared to those who do not work. This is because individuals in the workforce are exposed to a wider array of information (Amelia 2020).

Occupation, in the broad sense, refers to the primary activities carried out by individuals. In a narrower context, the term "work" is used to describe tasks or activities that generate income for an individual. One of the factors influencing knowledge is a person's occupation. Working mothers are dynamic women with strengths and abilities to balance various responsibilities in their unique ways. On the other hand, non-working mothers are those primarily engaged in household tasks, spending a significant amount of time at home without the necessity to work outside the home (Bongga 2019).

This is consistent with research conducted by (Rahmandiani et al. 2019) which asserts that the work environment can assist individuals in gaining experience and knowledge, both directly and indirectly. Through such experience and knowledge, mothers can increase their awareness and understanding, particularly in matters related to child growth and development delays.

3.2.2 Mothers' Knowledge Level About Stunting Before Receiving Health Education with Pocket-Sized Books in Kasilib Village

Based on Table 4.2, the results indicate that, before receiving health counseling, 72 respondents, equivalent to 53.8%, had a sufficient level of knowledge regarding stunting and malnutrition. One of the factors that can influence the prevalence of stunting is a mother's knowledge. Knowledge about stunting and malnutrition is crucial for mothers because a lack of understanding about stunting and malnutrition can put a child at risk of experiencing stunting (Rahmandiani et al. 2019).

A mother's knowledge plays a role in a child's growth and development. A child whose mother possesses good nutritional knowledge will receive adequate nutrition, thus preventing malnutrition. Nutritional knowledge also affects a mother's parenting style. Mothers with limited nutritional knowledge often pay less attention to their child's food intake, making the child more vulnerable to malnutrition and stunting (Ningtyas et.al 2020).

A mother's knowledge significantly influences her attitudes and behaviors in preventing stunting. Stunting prevention begins with proper nutritional care, such as providing adequate nutrition from pregnancy through childbirth. In addition, mothers with good knowledge of stunting prevention will maintain a clean indoor environment and adopt a clean and healthy lifestyle.

This is consistent with research conducted by (Ernawati 2022) which identified a lack of maternal knowledge as one of the risk factors for child stunting. Malnutrition in children is more likely to occur when their mothers have limited knowledge. Therefore, efforts should be made to enhance maternal knowledge about stunting through health education programs focused on stunting prevention.

3.2.3 Mothers' Knowledge Level About Stunting After Health Education with Pocket-Sized Books in Kasilib Village

Based on Table 4.3, it was found that the level of knowledge among mothers after receiving health education is as follows: 37 respondents, representing 28%, have a sufficient level of knowledge about stunting, while 95 respondents, making up 72%, possess good knowledge about stunting.

Health education is one of the factors that impacts the educational process, leading to the achievement of optimal educational outcomes. Health education can influence the learning process by enhancing behavioral capabilities to achieve good health when individuals are educated about health (Fadyllah & Prasetyo 2021).

Pocket-sized books offer various health and scientific benefits. The medical advantage of reducing stunting through pocket-sized books about stunting lies in their ability to educate the community. These pocket-sized books are designed in a simple and appealing manner, aligning with their purpose and not diminishing their instructional character. They hold great significance in the realms of science and education, aiming to educate and provide further knowledge about the meaning of stunting, especially in cases of malnutrition, how to address it, and featuring a menu for complementary feeding (Putu et al. 2022).

This is consistent with research conducted by (Sari et al. 2021) which emphasizes that information provided through pocket-sized books can enhance mothers' knowledge. The more frequently mothers receive information, the better their knowledge becomes, particularly when it comes to understanding stunting.

3.2.4 Analysis of the Impact of Health Education with Pocket-Sized Books on Mothers' Knowledge Level About Stunting

Based on the results obtained from Table 4.4, using the Paired T-Test with a p-value of $(0.000) < 0.05$, it can be concluded that there is an influence of health education with pocket-sized books on mothers' knowledge level about stunting in Kasilib Village, Wanadadi Subdistrict, Banjarnegara District.

This demonstrates the effectiveness of health education in enhancing mothers' knowledge about stunting in Kasilib Village. Prior to receiving health education, 37.9% had insufficient knowledge about stunting, 53.8% had adequate knowledge, and 8.3% had good knowledge. After the health education, 28% had sufficient knowledge, and 72% had good knowledge about stunting.

This signifies an improvement in mothers' knowledge levels before and after health education with pocket-sized books about stunting in Kasilib Village. Prior to health education, the majority had adequate knowledge, representing 53.8%, while after health education, the majority had good knowledge, accounting for 72%.

This is consistent with research conducted by (Atik & Wahyuningsih 2022) Before receiving health education with pocket-sized books, the majority of mothers had insufficient knowledge, with 17 mothers (56.6%). After receiving health education with pocket-sized books, the majority of mothers had good knowledge, totaling 22 mothers (73.3%). The results of the Paired T-Test showed a significant difference in maternal knowledge ($p = 0.000$, which is $p \leq 0.05$). Therefore, it can be concluded that health education with pocket-sized books has an impact on knowledge in stunting prevention.

This is consistent with research conducted by (Sari et al. 2021) which also demonstrated an increase in the average knowledge score after providing pocket-sized books, as confirmed by the hypothesis testing using the Paired T-Test with a p-value of $p < 0.05$. However, these statistical results apply specifically to maternal knowledge about stunting. The outcomes of this study indicate that pocket-sized books are an effective medium for enhancing knowledge.

CONCLUSION

Based on the research results regarding the Impact of Health Education with Pocket-Sized Books on Mothers' Knowledge of Stunting in Kasilib Village, it can be concluded that health education and the distribution of pocket-sized books about stunting have a significant influence on improving mothers'

knowledge of stunting in Kasilib Village, as conducted by the researcher. After statistical tests, the following conclusions can be drawn:

1. Characteristics of Respondents Based on Education and Occupation in Kasilib Village: The study revealed that the majority of respondents had completed high school education (69 respondents, 52.3%), and the majority of respondents were not employed (82 individuals, 62.1%).
2. Mothers' Knowledge Levels about Stunting Before Health Education with Pocket-Sized Books in Kasilib Village: Before health education, 71 respondents (53.8%) had a fair level of knowledge about stunting.
3. Mothers' Knowledge Levels about Stunting After Health Education with Pocket-Sized Books in Kasilib Village: After health education, 95 respondents (72%) had good knowledge about stunting, indicating a significant improvement.
4. Analysis of the Impact of Health Education on Mothers' Knowledge of Stunting: The study demonstrates that there is a significant Impact of Health Education on Mothers' Knowledge of Stunting in Kasilib Village, as evidenced by a p-value of 0.000, which is less than 0.05.

RECOMMENDATION

1. For the Research Location Posyandu cadres and healthcare workers in the Kasilib Village area are encouraged to conduct regular health education sessions related to stunting. This can help reduce the increasing incidence of stunting.
2. For Educational Institutions Educational institutions are expected to continue supporting students in their community service activities, ultimately increasing public knowledge about stunting.
3. For the Respondents Respondents are encouraged to understand and apply this knowledge in their daily lives to prevent the continued rise in stunting rates.
4. For Future Researchers Future researchers are expected to expand upon this research by exploring additional factors

contributing to stunting and preventive measures.

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