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Health Education Using Videos to Increase Mothers' Knowledge about Stunting Prevention in The First 1000 Days of A Child's Life

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ABSTRACT

Introduction: The higher the mother's knowledge about stunting and health, the better the food assessment, while in families with low knowledge, children often eat without meeting nutritional needs (Hasnawati et al., 2021). Providing knowledge about stunting prevention in pregnant women requires a health education method with an interesting concept, namely health education using health media so that the delivery of material can be carried out effectively and efficiently.
Objective: The purpose of this study was to analyze the difference in maternal knowledge about stunting before and after being given health education on stunting prevention using video.
Methods: The design of this study is a quantitative research with a quasy experiment approach with a one group pretest-posttest design. The population of this study was 30 mothers with babies 0-2 years old using *a total sample* sampling technique.The instrument used was a questionnaire compiled by the researcher. Bivariate analysis using *dependent t-test*
Results: The results of the study obtained the knowledge of the mother before being given education on average 56.4 and increased after being given education using video by 82.1. There is a significant difference between knowledge before and after being educated using video with a p value of 0.001 < 0.05, so video can be used as one of the media to provide education.

Keywords: mother's knowledge, stunting prevention, education using animated videos

INTRODUCTION

Nutritional problems in toddlers are still a major problem in the population order. Nutritional problems in toddlers include stunting, wasting and overweight (World Health Organization, 2020). Stunting is still a major nutritional problem in developing countries such as Indonesia. Stunting or chronic malnutrition is a nutritional problem due to lack of nutritional intake from food that lasts for a long time (Andriani et al., 2017). Short toddlers (stunting) are seen from a body length or height that is less than -2 elementary according to the WHO global reference for children compared to other children of their age (World Health Organization, 2013).

The incidence of stunting will have a bad impact on toddlers. The short-term impact of stunting is in the form of impaired physical and mental development, decreased intelligence, and metabolic problems. Meanwhile, the long-term impact of stunting is in the form of decreased cognitive ability, decreased immunity so that the body is susceptible to disease, and at risk of degenerative diseases such as diabetes mellitus, cardiovascular disease, cancer, stroke, and not being able to compete at work which will result in low productivity (Unicef Indonesia, 2012).

Stunting in toddlers is influenced by several factors, namely age, body length at birth, adequacy of macronutrients (proteins, carbohydrates) and micronutrients (calcium, vitamin A, iron and zinc). The main factor causing this is the level of protein adequacy (Siringoringo et al., 2020). Research conducted

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by Sutriyawan and Nadhira in 2020 stated that the factors that affect the incidence of stunting or short are maternal knowledge, exclusive breastfeeding, and basic sanitation (Sutriyawan and Nadhira, 2020). The prevalence of stunting in the world according to WHO is 21.9%. Most of these stunted toddlers come from Asia (World Health Organization, 2020). Based on data from the 2021 Indonesian Toddler Nutrition Status Survey (SSGBI), the prevalence of stunting toddlers in Indonesia decreased from 2019 to 2021, from 27.67% to 24.4%.

Handling stunting incidents is one of the national development priorities described in the 2020–2024 RPJMN, the government's target is to reduce the prevalence of stunting to 14% by 2024 (National Development Planning Agency, 2019). In an effort to reduce the prevalence of stunting, the government has issued many programs to make it happen. The efforts made by the government are to prevent and reduce direct disturbances (specific nutrition interventions) to indirect disturbances (sensitive nutrition interventions). The priority target of this effort is people involved in the First 1000 Days of Life (HPK), namely pregnant women, lactating mothers and children aged 0-2 years.

In an effort to deal with the causes of stunting, health workers intervene, namely specific interventions and sensitive interventions. Specific interventions are activities carried out to directly address the causes of stunting such as food intake, infection prevention, maternal nutritional status, infectious diseases and environmental health, while sensitive intervention interventions are activities related to indirect causes that are generally outside health problems. Sensitive interventions are divided into 4 types, namely the provision of drinking water and sanitation, nutrition and health services, 6 increasing awareness of care and nutrition, and increasing access to nutritious food (Scaling Up Nutrition Indonesia, 2020).

Inadequate knowledge, lack of understanding of good eating habits, and lack of understanding of stunting determine the attitude and behavior of mothers in providing food for their children, including the right type and amount so that children can grow and develop optimally. The higher the mother's knowledge about stunting and health, the better the food assessment, while in families with low knowledge, children often eat without meeting nutritional needs (Hasnawati et al., 2021)

According to Notoatmodjo (2007), in general, health education is not directly delivered but uses the help of the media. Providing knowledge about stunting prevention in pregnant women requires a health education method with an interesting concept, namely health education using health media so that the delivery of material can be carried out effectively and efficiently. Media in health counseling can be interpreted as a health promotion tool to facilitate communication and dissemination of information, one of the media used is video media. Video media displays audio and visuals that make it easier for respondents to receive the information conveyed.

The purpose of this study is to analyze the influence of health education using videos on parents' knowledge about stunting prevention in children.

MATERIALS AND METHODS

The type of research used is *Quasi Experimental Design*. The research design used by the researcher in this study is *a pretest-posttest without control group design*. This research was conducted at the Mekar Sari Posyandu , Lerep Village on April 22, 2025. The population in this study is all mothers who have toddlers aged 0-2 years with a total of 30 mothers. The samples in this study were taken in *total sampling*. The research instrument uses a questionnaire prepared by the researcher and has been tested for validity. Data collection was carried out on mothers with toddlers aged 0-2 years by distributing the initial questionnaire to respondents, then playing an animated video and distributing the final questionnaire again. This research has passed the ethics test with the number 187/KEP/EC/UNW/2024. This bivariate analysis uses a dependent t-test.

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RESULTS

This study was conducted on 30 mothers who had children aged 0–2 years and lived in the working area of Posyandu Mekar Sari, Lerep Village. Respondents' knowledge of stunting prevention was measured before and after being provided with health education using video media. Data analysis was carried out using the paired t-test, because the data was normally distributed based on the results of the Shapiro-Wilk test.

1. Respondent Characteristics

Table 1. Frequency Distribution of Respondent Characteristics

Characteristics	Category	Frequency (n)	Percentage (%)
Age	20–30 years	18	60%
	31–40 years	12	40%
Education	SD	0	0%
	JUNIOR	2	0,06%
	SMA	16	53.3%
	College	12	40 %
Work	Housewives	8	26.7%
	Work	22	73,3%

Based on the results of the study, it can be concluded that the majority of mothers are 20-30 years old with a frequency of 19 people (60%), the majority of mothers are in high school with a frequency of 16 people (53.3%) and working mothers are with a frequency of 22 people (73.3%)

2. Data Normality Test

Normality tests were performed on knowledge scores before and after education using the Shapiro-Wilk test:

Table 2 Data normality test table

Variabel	Sig. (p-value)
Knowledge before education	0,154
Knowledge after education	0,087

Based on table 2, the result of the p value > 0.05 was obtained, the data was distributed normally, so it could be continued with the paired t-test.

3. Research Results

a. Overview of mother's knowledge about stunting

Table 3. Frequency Distribution of Maternal Knowledge Overview of Stunting

Variabel	Phase	Mean	SD
Mother's knowledge	Before	56,4	9,4
	After	82,1	7,3

Table 3 shows that the average knowledge of mothers about stunting before being given health education is 56.4 (SD 9.4) and there is an increase after being given health education of 82.1 (SD 7.3).

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b. Differences in knowledge before and after health education

Table 4. Results of differences in knowledge before and after health education

Variabel	Phase	Mean	SD	Average difference (95%CI)	Value p
Mother's knowledge	Before	56,4	9,4	-14,26	0,0001
	After	82,1	7,3		

Table 4 shows that there is a difference in the mean mean of 14.26 with a p value of 0.0001, so it can be concluded that there is an effect of education using animated videos on mothers' knowledge about stunting.

DISCUSSION

The results of the study showed that health education using video media significantly increased maternal knowledge about stunting prevention in the First 1000 Days of Life (HPK). There was an increase in the average knowledge score from 56.4 to 82.1 after the intervention, and the paired t-test showed a significance value of $p = 0.000$ ($p < 0.05$), which means that there was a statistically significant difference between before and after education.

Video media is a form of audiovisual education that has proven to be more interesting and effective than print media. Video is able to convey information more comprehensively through a combination of sound, moving images, and text, which helps improve comprehension and memory (Mayer, 2009). This supports the theory of multimedia learning which states that the learning process is more effective when learners receive information through more than one sensory channel.

In addition, the use of video media in health education allows for uniform and consistent information delivery to all participants. In the context of mothers with diverse educational backgrounds, video media can bridge literacy limitations through direct visualization of stunting prevention practices, such as exclusive breastfeeding, nutritious MP-breastfeeding, immunization, and good environmental sanitation (Ministry of Health of the Republic of Indonesia, 2021).

This research is in line with a study by Nurhasanah & Andriani (2020), which stated that audiovisual media is effective in increasing maternal knowledge about balanced nutrition. Similarly, a study by Dewi et al. (2022) stated that video-based educational interventions had a significant impact on increasing maternal understanding of 1000 HPK and infant feeding practices.

The increase in knowledge gained through this education is expected to be able to encourage changes in maternal behavior in daily practice, which is an important step in efforts to prevent stunting. Education-based interventions are one of the promotive and preventive strategies recommended in the national stunting reduction acceleration program (BKKBN, 2021).

The increase in knowledge of post-education mothers shows that targeted educational interventions are able to answer information needs in the community, especially in important issues such as stunting prevention. Knowledge is a major determinant in behavior change, as explained in the Health Belief Model (HBM) theory, which states that a person will take health actions if they have a high perception of benefits and adequate knowledge (Rosenstock, 1974).

In the context of 1000 HPK, mother's knowledge plays a very important role because this period is a golden period of child growth and development. Chronic malnutrition during this period can lead to stunting, which has a long-term impact on children's intelligence, productivity, and health in the future (WHO, 2021). Therefore, education that increases maternal understanding of breastfeeding, MP-ASI, immunization, growth and development monitoring, and sanitation is a strategic step in preventive interventions.

Video media also provides flexibility in delivering information. Mothers can rewatch videos when needed, thus supporting continuous knowledge strengthening. According to research by Wijaya &

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Prasetya (2021), educational videos accessed independently or in groups can increase knowledge and motivate behavior change because of their repetitive and communicative nature.

In addition, in the implementation of this study, a participatory approach also supports the success of the intervention. The mother's involvement in the question and answer session after the video screening provided space for participants to clarify information that was poorly understood. Small group discussions encourage active involvement and allow for horizontal knowledge transfer between mothers.

It should also be noted that in addition to educational media, other factors such as education level, childcare experience, and access to health services also affect maternal knowledge. This study found that mothers with secondary to higher education showed a more significant increase in knowledge scores, although mothers with low education continued to experience an increase after receiving education.

Thus, the results of this study confirm that educational videos are an effective medium and can be used as one of the counseling methods in the community, especially in health campaigns related to stunting in 1000 HPK. These results reinforce the recommendation that video-based health education can be adopted more widely by health workers in health centers, posyandu, and other primary care facilities as an innovative and efficient health promotion strategy. The development of video content that is tailored to the local context and culture of the community is also important to increase the engagement and effectiveness of the message being conveyed.

CONCLUSIONS

The average knowledge of mothers about stunting before being given health education was 56.4 (SD 9.4) and there was an increase after being given health education of 82.1 (SD 7.3) with a mean average difference of 14.26 with a p value of 0.0001, so it can be concluded that there is an effect of education using animated videos on mothers' knowledge about stunting. With this research, it is hoped that animated videos can become a medium for providing education on stunting prevention in stunting risk groups.

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Availability of data and materials

This study was conducted on 1 group of mothers who had toddlers aged 0-1 years only, due to the limited number of respondents. The next research that can be done is that education can be carried out on a larger number of respondents, so that the results of the research can be more significant.

Authors' contributions

The researcher consists of 2 people where the head researcher (Natalia Devi Oktarina) plays the role of preparing materials and questionnaires for research and processing research data as well as making final reports and articles, while the research member (Fiki Wijayanti) plays the role of collecting research data and as an educator of stunting prevention using video.

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Conflict of Interest
This study does not use commercial products

REFERENCES

Atikah Rahayu, Fahrini Yulidasari, Andini Octaviana Putri and Lia Anggraini, A. O. P. and L. A. (2018). *Study Guide-Stunting and Its Prevention Efforts. For Public Health Students*. Yogyakarta: CV. Mine.

BKKBN. (2021). *National Strategy for the Acceleration of Stunting Reduction 2021–2024*. Jakarta: BKKBN.

Boylan, S., Mihrshahi, S., Louie, J.C.Y., Rangan, A., Salleh, H. N., Md Ali, H. I., & & Dato Paduka, H. R. (2017). Prevalence and Risk of Moderate Stunting Among A Sample of Children Aged 0-24 Months in Brunei. *Matern Child Health Journal*, *21*(12), 2256–2266. https://doi.org/DOI:10.1007/s10995-017-2348-2

BPS. (2021). *Indonesian Demographic and Health Survey (SDKI) 2020-2021*. Jakarta: Central Statistics Agency (BPS).

Dewi, R. A., Sari, M. E., & Putri, Y. D. (2022). The Influence of Educational Videos on Mother's Knowledge of the First 1000 Days of Life. *Journal of Public Health*, 18(1), 45–52.

Febriani, Nur and Misnaniarti, M. (2019). The relationship between parenting and the incidence of stunting of toddlers from poor families in Palembang City. *The Indonesian Journal of Nutrition.*, *8*(4), 31–39. Retrieved from https://ejournal.undip.ac.id/index.php/jgi/

Fikadu, Assegid and Dube, S. A. and L. D. (2019). Factors associated with stunting among children of age 24 to 59 months in Meskan District, Gurage Zone, South Ethiopia. *African Journal of Food, Agriculture, Nutrition and Development*, *9*(4), 1–7. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4131046/ on August 13 2019

Ministry of Health of the Republic of Indonesia. (2018a). *Basic Health Research (Riskesdas) 2018*. Jakarta: Health Research and Development Agency of the Ministry of Health of the Republic of Indonesia.

Ministry of Health of the Republic of Indonesia, K. (2018b). Getting to Know Stunting and Malnutrition. Causes, symptoms, and prevention. Retrieved from kemkes.go.id website: https://promkes.kemkes.go.id/content/?p=8486

Ministry of Health of the Republic of Indonesia. (2021). *Guidelines for the Implementation of Simultaneous Interventions for Stunting Prevention*. Jakarta: Ministry of Health of the Republic of Indonesia.

Mayer, R. E. (2009). *Multimedia Learning* (2nd ed.). New York: Cambridge University Press.

Meilyasari, F., & Isnawati, M. (2017). Risk Factors for Stunting in Infants Aged 12 Months in Purwokerto Village, Patebon District, Kendal District. *Journal of Nutrition College*, *3*(2), 26–32. Retrieved from https://ejournal3.undip.ac.id/index.php/jnc/article/view/5437

Mendez dan Adair, M. A. (2019). Severity and timing of stunting in the first two years of life affect performance on cognitive tests in late childhood. *Journal of Nutrition*, *129*(8), 1555–1562. https://doi.org/10.1093/jn/129.8.1555

Ni'mah K and Nadhiroh SR., N. S. (2015). Factors Related to Stunting Incidence in Toddlers. *Indonesian Nutrition Media*, *10*(1), 13–19.

Notoatmojo, S. (2018). *Health Research Methodology*. Jakarta: PT RINEKA CIPTA.

tion and Dietetics), *3*(1), 1–10. https://doi.org/10.21927/ijnd.2015.3(1).10-21

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Nurhasanah, & Andriani, R. (2020). The Effectiveness of Audiovisual Media on Nutritional Knowledge in Mothers Under Five. *Journal of Nutrition and Health*, 12(3), 112–118.

Rahmawati, D., & Agustin, L. (2020). *Prevent Stunting with Psychosocial Stimulation and Food Diversity*. Jakarta: Publishing.

Rizky Syahputri, S., & Yuni Astuti Anggraini, T. (2019). Overview of the Development of Stunting Toddlers in Wunung Village, Working Area of Wonosari I Health Center, Gunung Kidul, Yogyakarta. *Health Sciences Media*, *6*(3), 232–238. https://doi.org/10.30989/mik.v6i3.211.

Rosenstock, I. M. (1974). Historical origins of the Health Belief Model. *Health Education Monographs*, 2(4), 328–335.

Wijaya, D., & Prasetya, H. (2021). The Effectiveness of Educational Videos on Nutritional Knowledge and Behavior of Mothers Under Five. *Promkes Journal*, 9(1), 50–58.

Wong, D. L. (2018). *Pediatric Nursing Textbook*. Jakarta: EGC.

WHO. (2021). *Stunting in a Nutshell*. Geneva: World Health Organization.