D'Nursing and Health Journal **(DNHJ)**
E-ISSN: 2774-3810, P-ISSN: 2774-3802
Vol: 6 No: 2, September 2025
Page: 59-67

The Effect of Health Education on Audio Visual Media and Booklets on Stunted Prevention Knowledge of Parents

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ABSTRACT

Introduction: Stunting is a failure to grow and develop in toddlers, which is characterized by a child's height that is lower or very low than the growth standard of children of their age, which is less than -2 standard deviation (SD) on the WHO growth curve. The purpose of this study is to determine the effect of health education, audio-visual media and booklets on stunting prevention knowledge of parents of toddlers at the Kakas Health Center.

Methods: This research is a quantitative research method, with a pre-experimental research design. The research design was only one group or one group, which was carried out pre-test, post-test after being given an experiment. The sample in this study was 23 parents, who have children under five with a risk of stunting at the Kakas Health Center.

Result: With the results of the pre-test who have less knowledge, namely 22 people, and have enough knowledge, namely 1 person. And the post-test that has enough knowledge is 3 people, and has good knowledge, namely 21 people. From the results of the SPSS program test, the wilcoxon test value of the negative rank is 0. This means that there is no decrease from pre-test to post-test, while in the positiv rank there is an increase from pre-test to post-test is 12 and the sum of rank is 276.00, while the significant value is $0.00 < \alpha = 0.05$(0.00<0.05)z-Calcul-4,508. This means that there is an influence of health education using audio-visual media and booklets on stunting prevention knowledge of parents of toddlers at the Kakas Health Center. Thus H0 was rejected by Ha accepted.

Conclusion: From this study, there is a difference in the value of parental knowledge before being given health education using audio-visual media and booklets, and after health education is provided using audio-visual media and booklets to parents of toddlers at the Kakas Health Center.

***Keywords**: Health Education; Audio Visual; Booklet; Parents Knowledge; Stunting*

Introduction

Children under two years old who have insufficient nutritional intake, thus unable to meet their caloric needs, will experience stunting (Wasihun et al., 2024). Stunting is a chronic malnutrition problem caused by inadequate nutritional intake over a long period of time (Khani Jeihooni et al., 2022). If left untreated for a long period of time, it will impact cognitive, psychomotor, motor, and educational attainment, as well as lower average IQ scores (Hasriani et al., 2023). Child growth and development is one of the main indicators in determining the quality of future human resources, because in the early stages of a child's life, especially up to the age of 2, it can cause permanent damage to their growth and development (Bangelesa et al., 2023).

According to the World Health Organization (WHO), 144 million children under five suffer from stunting, with 83.6 million in Asia and 13.9 million in the Southeast Asia region (Ministry of Health, 2022). The Ministry of Health, through the Indonesian Nutritional Status Survey (SSGI), released data showing that 21.6% of toddlers in Indonesia suffer from stunting. According to the 2023 SSGI, the prevalence in North Sulawesi is 20.5%, with the highest number of cases in East Bolaang Mongondow Regency (30.00%), and Talaud Regency (26%). In Minahasa Regency, there were 140 cases of stunting in 2023, with the highest number of cases occurring at Pineleng Community Health Center (27 toddlers), followed by Kakas Community Health Center (23 toddlers) (Minahasa Regency Office, 2023).

Stunting in toddlers impacts reduced intelligence, reduced immunity and productivity, impaired mental and emotional health, and stunted growth (Fitriani et al., 2020). Mothers play a crucial role in addressing nutritional issues within the family, particularly those related to parenting and family nutrition (Green et al., 2021). Mothers also play a crucial role in selecting food ingredients, preparing meals, and even creating the family menu. A mother's role in caring for stunted children is crucial because she is responsible for managing their needs and care (Wigati et al., 2022). In addressing the risk of adverse effects of stunting, a mother's role extends beyond providing optimal nutrition, but also through hygiene measures, special attention, and emotional support that strengthen the child's immune system (Atik, 2021).

Parental knowledge plays a crucial role in the successful management of stunted children, as a mother's lack of understanding about complementary feeding and its care can impact the child's condition (Muhamad et al., 2023). Maternal factors also play a role in the level of knowledge that can influence parental behavior in providing nutritional intake and stimulating child growth and development (Lorenzetti et al., 2023). Research shows that the incidence of stunting and parental knowledge are interrelated, with parental knowledge being a key factor in the successful management of stunted children (Supadmi et al., 2024). Parental knowledge alone is insufficient without strong motivation from mothers (Wand et al., 2024).

Stunting prevention can also begin with health education. Health education is defined as health education activities that involve disseminating information and building beliefs. Therefore, parents are expected to not only possess knowledge and understanding of health but also be able to provide advice related to it (Tanggo, 2022). There are various ways to deliver health education, including audiovisual media and booklets. Audiovisual media has the advantage of presenting visual and audio elements simultaneously. The combination of these two elements gives audiovisual media its superior communication capabilities. Audiovisual media is a form of media that combines sound and images to convey messages or information to audiences or listeners (Faujiah, 2022).

Method

This research is a quantitative research with a Pre-Experimental Design. The research design is a One Group pre-post-Test design. In this design there is a pretest before being given treatment and a post-test after being given treatment. The population in this study was 32 people, and the number of samples was 23 respondents. The Sampling technique was purposive sampling. Data collection used a knowledge questionnaire. The independent variable is Health Education Through Audio Visual Media and Booklets, the dependent variable is Knowledge of Stunting Prevention in Parents. Analysis used the Wilcoxon test..

Results

1. Univariate Analysis

Table 1. Distribution of Parental Characteristics

Characteristic	Frequency	%
Gender		
Male	1	4,3
Female	22	95,7
Total	**23**	**100**
Age		
19 Years	1	4,3
20 – 24 Years	4	17,4
25 – 30 Years	8	34,8
≥ 31 Years	10	43,5
Total	**23**	**100**
Education		
Elementary School	2	8,7
Junior High School	4	17,4
High School	17	73,9
Total	**23**	**100**
Occupation		
Housewife	20	87
Student	1	4,3
Self - Employed	2	8,7
Total	**23**	**100**

Source: Primary Data, 2024

Based on Table 1, the most common gender is female, with 22 people (95.7%). The most common age of respondents is ≥ 31 years, with 10 people (43.5%). The most common level of education is high school, with 17 people (73.9%). The most common occupation is housewife, with 20 people (87%).

Table 2. Parents' Knowledge Before and After Being Given Audiovisual Health Education and Booklets

Category	Knowledge			
	Pre Test		***Post Test***	
	n	%	n	**%**
Less	22	95,7	0	**0**
Enough	1	4,4	3	**13**
Good	0	0	20	**87**
Total	**23**	**100**	**23**	**100**

Source: Primary Data, 2024

Based on Table 2, it can be seen that the category of parental knowledge that was most frequently given audiovisual health education and booklets in the pre-test was the poor category, with 22 people (95.7%). After the post-test, health education increased to the good category, with 20 people (87%).

2. Bivariate Analysis

Table 3. Wilcoxon Pre-test and Post-test Health Education Using Visual Audio Media and Booklet for Parents of Toddlers at the Kakas Health Center

Variabel	*Negatif Rank*	*Positif Rank*	*Ties*	*Mean Rank*	*Sum of Ranks*	*Z*
Knowledge	0	23	0	12,00	276,00	-4.508[b]
p-value = 0,000						
Uji Statistik: Wilcoxon						

Source: Primary Data, 2024

Based on Table 3, the results for the knowledge variable are negative rank 0, meaning that none of the 23 respondents experienced a decrease from the post-test to the pre-test. The positive rank value of the 56 respondents who experienced an increase from the pre-test to the post-test was 23 people and the Ties value or the value that has the same value between the pre-test and post-test is 0. The results of the statistical test on the knowledge variable using the Wilcoxon test obtained results from 23 respondents obtained a p value = 0.000 <the value of α = 0.05, meaning that there is an Influence of the Influence of Health Education Through Audio Visual Media and Booklets on Knowledge of Stunting Prevention in Parents.

Discussion

The research results showed that the majority of respondents were women. This finding aligns with research conducted by Ismail & Yona (2023), which found that women were predominantly female respondents. This is due to women's higher level of curiosity about stunting prevention and their consistently caring for children compared to men, as women are typically the ones responsible for household chores (Erwansyah et al., 2023).

Based on the characteristics of the respondents, age was the highest among respondents aged 31 years and over. A similar study by Ostadzad et al. (2020) found that the most common age range was 31 years and over. This age range is considered the golden age for processing new information, where cognitive abilities such as memory, concentration, and thinking speed are at their optimal levels. This aligns with research by Lestari Mukti Palupi (2023), which concluded that cognitive function peaks around the age of 30. In your 30s, the brain is maturing, leading to improved knowledge and memory. The 30s are a time of biological and psychological maturity. During this time, the brain reaches its peak of maturity (Kabir et al., 2022).

The research results revealed that the highest level of education for most respondents was high school. This finding aligns with research conducted by (Eka Camalia et al., 2021) which found that the majority of respondents had a high school education. A high school education, predominant in this area, provides a better understanding of the information presented, as the higher the level of knowledge, the easier it is to absorb and apply that information in everyday life (Siuki et al., 2019). Education is considered crucial in determining human quality. Through education, humans are believed to acquire knowledge. Consequently, the higher a person's education, the higher their quality. A low level of education leads to a lack of access to health information. Higher education impacts the ability to think rationally and easily understand new information (Astari & Fitriyani, 2019).

Based on the pre-test results, all respondents' knowledge about stunting prevention was categorized as insufficient. This finding aligns with research by (Siuki et al., 2019), which showed that parents' knowledge about stunting tended to be poor during the pre-test. This is caused by a lack of knowledge and understanding or a lack of adequate access to information for patients. Based on the post-test results, it was found that there was a significant change in parental knowledge about stunting prevention. Most parents' knowledge was in the good category based on the post-test results. The same study was also conducted by (Sumartini & Maretha, 2020) and found that there was a significant increase in knowledge. This is because after being given health education, parents' knowledge improved for the better. The same study was also conducted by (Wardhani & Wijayanti, 2022) that after being given health education,

respondents' knowledge was in the good category. Parental knowledge is a factor that influences behavior; the better the knowledge, the better the behavior (Lestari Mukti Palupi, 2023).

Based on the results of the Wilcoxon Statistical test, there is an effect of audiovisual education and booklets on parental knowledge about stunting prevention. These results indicate that there is a significant effect before and after being given health education interventions. Previously, parental knowledge about stunting prevention was lacking, but after being given health education, parental knowledge improved. The same study was also conducted by (Arif Rahman, 2023) that health education significantly influenced increasing parental knowledge about stunting prevention. A similar study was also conducted by (Ismail & Yona, 2023) that health education significantly influenced increasing parental knowledge about stunting prevention. This proves that health education is more effective and easier for people to understand and comprehend because there is a long question and answer session. Parental knowledge about. Knowledge is obtained from education, observation, or information obtained by someone, with knowledge a person can make changes so that a person's behavior can develop (Habib et al., 2023). Respondents' good knowledge is demonstrated by their ability to correctly answer questions related to immunization knowledge, habits, or overt behavior (Siuki et al., 2019). Respondents' knowledge is also gained through health education. Public health education is an activity or effort to convey health messages to communities, groups, or individuals with the hope that through this message, they will gain better health knowledge, which will ultimately change their behavior. Health education is also a process, with inputs and outputs (Isma Dewi et al., 2022). Health education is an activity carried out using learning principles so that people experience changes in knowledge and willingness, both to achieve desired living conditions and to discover ways to achieve those conditions individually or collectively (He et al., 2020).

Health education is an increase in knowledge and skills aimed at changing healthy living behaviors in individuals, groups, and communities, provided through learning or instruction. Counseling activities can be conducted through two-way communication, where the communicator (counselor) provides communication

opportunities to provide feedback on the material presented (Purba et al., 2021). Interactive discussions in this two-way communication are expected to trigger desired behavioral changes. Health education activities can be conducted through two-way communication, where the communicator (counselor) provides communication opportunities to provide feedback on the material presented (Ismail & Yona, 2023). Interactive discussions in this two-way communication are expected to trigger desired behavioral changes (Mardiana & Nur Azizah Ahmad, 2023). Health education can be conducted through various activities and opportunities based on sound learning principles, as demonstrated by respondents' ability to correctly answer questions related to motivation to adopt a healthy lifestyle in hypertensive patients (Arif Rahman, 2023).

Researchers argue that health education is highly effective in increasing parental knowledge about preventing stunting in children.

Conclusion

Parents' knowledge of stunting prevention in children before intervention was generally in the poor knowledge category. After audiovisual health education and booklets were provided, their knowledge increased, and their knowledge averaged out to the good category. This demonstrates that audiovisual education and booklets are highly effective in increasing knowledge from initial ignorance to knowledge.

References

Anggita. (2020). Women, Children and Families in the Flow of Change. Nas Media Pustaka. Makassar

Apriliawati, A., & Sulaiman, S. (2020). Booklet and audiovisual media are effective on the knowledge of parents with stunted toddlers. Health Scientific Journal, 9(2), 60–65. doi: 10.22437/jkmj.v4i1.8939

Daulay, D. Nurusakinnah. (2017). Psycho Logi Parenting Book). Holiday rentals in Jakarta

Ministry of Health of the Republic of Indonesia DRI. (2019.) Guidelines for the Implementation of Rehabilitation Supplementary Feeding for Undernourished Toddlers. PIONEER SCIENTISTS.

Scott, E. (2021). Stunting from theory and evidence of implementation in the field. Gadjah Madah Press Yogyakarta"

Jannah, F. (2019). The Relationship between Education Level and Parental Knowledge on the Incidence of Stunting in Toddlers at the Kebayoran Baru Health Center, South Jakarta City. In Repository.Uinjkt.Ac.Id.

https://repository.uinjkt.ac.id/dspace/handle/123456789/64231%0Ahttps://repository.uinjkt.ac.id/dspace/bitstream/123456789/64231/1/11181330000090_Fathul Jannah - FATHUL JANNAH-090.pdf

Kanda, Risnayanti Lomba, and Winda DolfianiTanggo. 2022. Bachelor of Nursing and Nursing Study Program, Stella Maris College of Health, Makassar 2022.

Ministry of Health. 2022. "Results of the 2022 Indonesian Nutrition Status Survey (SSGI)." Ministry of Health: 1–150.

Ministry of Health of the Republic of Indonesia. 2022. "Ministry of Health of the Republic of Indonesia No. HK.01.07/MENKES/1928/2022 concerning National Guidelines for Medical Services for Stunting Management." : 1–52

Kurniatin, L. F., & Zakiyya, A. (2022). Health Education with Video Media and Booklet Mentoring for the First 1000 Days. Journal of Health of the Ministry of Health of the Republic of Indonesia Pangkalpinang, 10(1), 28–37

Maritje S.J Malisngorar, Ety Dusra, & Siti Nadya Silawane. (2023). The Effect of Audio-Visual Education on Mothers' Knowledge of Stunting in Teluti Baru Village in 2023. Journal of Clinical Pharmacy and Pharmaceutical Science, 2(2), 100–111. https://doi.org/10.61740/jcp2s.v2i2.45

Minahasa, Regency. "Minahasa Regency Health Office 2 0 2 1." : 0–86

Mulyani, Nunung Sri, Eva Fitriyaningsih, Agus Hendra Al Rahmad, and Abdul Hadi.2022. "Increasing Maternal Knowledge and Attitudes for Stunting Prevention in Aceh Besar Regency." PADE Journal: Devotion & Education 4(1): 28

Notoadmodjo, S. (2018). Health Promotion & Health Behavior. From Jakarta

Notoadmojo. (2018). Health Research Methods of PT Rineka Cipta Jakarta.

Nursalam. (2017). Practical Approach Nursing Science Research Methodology (4th EDITION). Salemba Medika.

Nursalam (2015) Book: Application of Nursing Management in Professional Nursing (5th Edition) Salemba Medika Jakarta

H,Siti 2020." stunting problems and their handling Gadja Mada University press Yogyakarta"

North Sulawesi Provincial Government, North Sulawesi Provincial Government. 2020. "Determination of Locus Regency Performance Results in Handling Integrated Stunting Convergence in North Sulawesi Province in 2020."

Rink, Willia Novita Acre. 2020. "The Effect of the Use of Audio-Visual Media on the Improvement of Mothers' Knowledge About

Sucih, I. (2022). KESANS : International Journal Of Health and Science e-ISSN : 2808-7178, p-ISSN : 2808-7380 Web :http://kesans.rifainstitute.com/index.php/kesans/index. International Journal of Health and Science, 1(4).

Sulaeman.E.S. (2020). Health Education and Promotion. Gadja Madah Press.Yogyakarta

UNICEF. (2023). FROM THE FIRST 1000 DAYS TO A RESILIENT FUTURE Environmental and Climate Education for Early Childhood in Latin America and the Caribbean.