DOI: http://dx.doi.org/10.33846/hn61002
http://heanoti.com/index.php/hn

RESEARCH ARTICLE
URL of this article: http://heanoti.com/index.php/hn/article/view/hn61002

The Effect of Health Education with Audio Visual Media on Changes in Mother's Behavior in Stunting Prevention

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ABSTRACT

Stunting in children is challenge in the development of quality Indonesian people. Number of stunting in Indonesia is still quite high, at 30.8 percent. In the 2020-2024 RPJMN, the suppression of the stunting rate is targeted to be 19% in 2024 from the current 30.8%. This study aims to determine and analyze the effect of health counseling with audio visual media on changes in mother's behavior in preventing stunting in Doloksanggul sub district, Humbang Hasundutan district in 2021. The method used in this study was quasi-experimental method with use of counseling as treatment. Delivery of information supported by provision of audio-visual media about stunting prevention. The population in this study were all couples of fertiled age women and it was conducted in May 2021. The sample in this study was used by part of the population of women of childbearing age in the Doloksanggul District, Humbang Hasundutan Regency in 2020, which was 148 people. The sample size in this study was calculated based on the Slovin formula (the sample size was 35 women of childbearing age). The instruments used were video audio visual media, respondent identity questionnaire and knowledge, attitude and practice questionnaire. Statistical analysis was carried out with the aim of explaining the relationship between the variables being studied, using paired sample t-test. The results of data processing showed that there was a significant difference between behavior in stunting prevention before counseling with audio-visual media and after counseling with a p-value of 0.000. Based on the results of the research that has been done, it can be concluded that there were significant differences in knowledge, attitudes and practices before and after intervention with audio-visual media. It is hoped that effectiveness and efficiency in delivering information will be carried out to mothers. The media provided is in form of files that can be repeatedly accessed via Android. The provision of audio-visual media adds learning tools in education, in addition to increase the ease of access to knowledge for the community.

Keywords: counseling; audio visual; knowledge; attitude; practice; stunting

INTRODUCTION

Background

Failure to grow in children (stunting) is a challenge in the development of quality Indonesian people. The number of stunting cases in Indonesia was still quite high, at 30.8 percent. In the 2020-2024's RPJMN, the suppression of the stunting rate is targeted to be 19% in 2024 from the current 30.8% (Riskesdas, 2018). This effort should be done as much as possible with specific and sensitive nutritional interventions. It took steps outside the ordinary or extraordinary to reach the target. Among them is collaborating with the National Population and Family Planning Agency (BKKBN) to prevent stunting before marriage occurs [(1)].

Stunting is a condition of failure to thrive in toddlers due to chronic malnutrition, especially in the First 1,000 Days of Life. Stunting affects the growth and development of the brain. Stunting children also have a higher risk of suffering from chronic diseases in adulthood. Stunting problems occur from the womb and will only be seen when the child is two years old. UNICEF defines stunting as the percentage of children aged 0 to 59 months, with a height below minus (moderate and severe stunting) and minus three (chronic stunting). This is measured using the child growth standards issued by WHO. In addition to experiencing stunted growth, stunting is also often associated with causes of suboptimal brain development.

The World Health Organization (WHO) places Indonesia as the third country with the highest stunting prevalence rate in Asia in 2017. However, in 2019 the stunting rate fell to 27.67 percent or decreased by 10 percent. Research on 84,000 toddlers in the form of the Indonesian Toddler Nutritional Status Study Results (SSGBI). The 2019's SSGBI was carried out in an integrated manner with Susenas to get an overview of nutritional status which includes underweight (malnutrition), wasting (thin), and stunting (dwarf). As a result, the prevalence of underweight or undernourished children in 2019 was 16.29 percent. This figure has decreased by 1.5 percent. Then prevalence of stunting toddlers in 2019 was 27.67 percent, down by 3.1 percent. Meanwhile, the prevalence of wasting toddlers (thin), was at 7.44 percent. This figure was down 2.8 percent. All data are compared with survey results from 2018 [(1)].

Stunting prevention starts from the preparation of the mother-to-be to the period of maintaining the baby's development so that the child's quality of life is better. Pregnancy is the initial period of life or commonly called the first 1000 days of life. This period is also often called the sensitive period. The development of human brain cells at that time greatly determines the quality of future human resources, so that if a disturbance occurs during that period, it will have a permanent impact, it cannot be repaired. Nutrition is one of the determinants of the quality of human resources, nutrition is also a factor that affects maternal health [(1)]. Maternal health includes the health of women of childbearing age. The nutritional status of women, especially at childbearing age, is a key element in reproductive health including pre-pregnancy, pregnancy and the health of mothers who breastfeed their children. If a woman is malnourished, it will have an impact on undernourished conditions such as Chronic Energy Deficiency and Anaemia and decreased reproductive function [(2)].

From the research of [(3)] the results obtained are: The increase in knowledge, attitudes and behavior of mothers under five who attended counseling with audio-visual media was higher than those who attended counseling with modules and controls. Knowledge, attitudes and behavior of mothers under five is differerence between before and after the intervention.

From the research of [(4)] the results obtained are: There was a significant difference in knowledge ($p<0.05$) before and after the intervention with audio-visual media. Knowledge of pregnant women increased after the intervention with $p = 0.001$. The attitude of pregnant women increased after the intervention with p value = 0.004.

The results of the Nutrition Status Monitoring (PSG) in North Sumatra showed that the prevalence of stunting in the province in 2017 was 28.4%, which means an increase of 4% from the situation in 2016. The PSG results in 2017 show that there were 22 regencies/cities in North Sumatra that have a prevalence of stunted children above the provincial prevalence rate. North Tapanuli Regency with a prevalence rate of (24.2%) consisting of very short toddlers of 15.2% and short toddlers of 9.0% is one of the districts included in the category of prevalence of short toddlers which is quite high in North Sumatra Province [(5)].

The results of [(6)], entitled The relationship of mother's knowledge and attitudes with stunting prevention in the health center work area of Jambi City Wire Junction, it is known that there was a significant relationship between mother's knowledge and prevention efforts Stunting. Of the 57 mothers, the majority (71.9 %) have high knowledge of Stunting prevention.

October 2020 data on the number of toddlers in Humbang Hasundutan Regency, as many as 16630 toddlers. The survey in the Doloksanggul sub-district at the Matiti Health Center had a stunting prevalence of 21.50% out of 2712 toddlers. Data from the EPPGBM (Integrated Nutrition Recording and Reporting) in 2021 showed that the prevalence of stunting in Parlilitan was around (28.18%), Huta Paung (34.57%), Baktiraja (22.40%), Paranginan (11.86%), Lintongnihuta (16.63%), Doloksanggul (26.11%), Sijamapolang (27.56%), Pakkat (16.54%), Onanganjang (30.38%), Tarastar (24.23%) so that the total was (23.65%).

Decree of the Minister of National Development Planning/Head of the National Development Planning Agency No. KEP/42/M.PPN/HK/04/2020, regarding the determination of the expansion of districts/cities where the focus of integrated stunting reduction interventions will be in 2021, Humbang Hasundutan district is one of the stunting locus districts for 2021. Humbang Hasundutan district's Regulation Number 3 of 2021 concerning the acceleration of the convergence of stunting prevention and reduction in Humbang Hasundutan district, and based on the Humbang Hasundutan district's decree number 56 of 2021 concerning the formation of a convergence coordination team for the acceleration of stunting prevention and reduction in Humbang Hasundutan district. Public health program indicators and targets in the RPJMN (National Medium-Term Development Plan) and RENSTRA (Strategic Plan) for 2020-2024, the prevalence of stunting in toddlers of age is targeted to decrease in 2020 (24.1%), in 2021 (21.1%), in 2022 it will be (18.4%), in 2023 (16%), and in 2024 to (14%), while in the RPJMD draft (Medium-Term Development Plan for Humbang Hasundutan district 2021-2026 through the target indicators of the health office which is currently in the drafting stage, the target is to reduce the prevalence of stunting for 2021 will decrease to (23.65%) , in 2022 to (20%), in 2023 to (18%), in 2024 it will decrease to (13.5%), in 2025 it will decrease to (11.5%) and in 2026 to (10%).

Based on the above background, the researcher was interested in conducting research on the effect of health counseling with audio visual media on changes in mother's knowledge, attitudes and practices in preventing stunting in Doloksanggul Sub-district, Humbang Hasundutan district in 2021.

METHODS

The type of research used was quasi experimental research, namely research by conducting intervention (treatment) on research subjects to find out the results of changes after the intervention. In this quasi-experimental design research, it used a one group pretest-posttest design, where this research has carried out the first observation (pre-test) so that researchers can test the changes that occur by giving questionnaires to respondents (post-test) after there was an intervention with the provision of audio-visual media, but in this design there was no control (comparison) group. The research location was in Doloksanggul sub District, Humbang Hasundutan district, conducted in May 2021.

The sample in this study was used by part of the population of women of childbearing age in the Doloksanggul District, Humbang Hasundutan Regency in 2020, which was 148 people. The sample size in this study was calculated based on the Slovin formula. Based on the calculation, the sample size used in this study was 35 women of childbearing age.

The instruments used were video audio visual media, respondent identity questionnaire and knowledge, attitude and practice questionnaire. Statistical analysis was carried out with the aim of explaining the relationship between the variables being studied. To test the hypothesis, a normality test was conducted first using the Kolmogorov Smirnov statistical test and the results obtained were a normal distribution if the p-value >0.05 so that it could be done with a paired sample test and for data that was not normally distributed if the p-value <0.05 Wilcoxon statistical test was performed.

RESULTS

The results showed that the characteristics of the respondents by categories. Most of the respondents have a high school education as much as 60%, and most of the respondents work as farmers as much as 60% (Table 1).

Table 1. Characteristics of respondents

Characteristics of respondents	Category	Distribution	
		Frequency	Percentage
Education	Elementary	2	5.7
	Junior high school	2	5.7
	Senior high school	29	82.9
	University	2	5.7
Occupation	Housewives	6	17.1
	Farmer	21	60
	Entrepreneur	6	17.1
	Civil servant	2	5.7

Table 2. Difference in scores of knowledge, attitudes and practices of respondents before and after being given counseling using audio-visual media

	n	Minimum	Maximum	Mean	Std. deviation
Knowledge					
Pretest	35	4	17	10.0857	3.59224
Posttest	35	8	20	14.9143	3.35517
Attitude					
Pretest	35	8	20	14.4857	3.32876
Posttest	35	10	20	16.3143	2.69827
Practice					
Pretest	35	3	9	5.7714	1.78368
Posttest	35	5	10	8.4857	1.29186

It is known that the results of descriptive analysis of research data are about the results before and after receiving counseling with audio-visual media. The results of the minimum and maximum values before and after counseling were carried out on respondents, there were significant differences in knowledge, attitudes and practices (Table 2).

It is known that the data on knowledge, attitudes and practices, before and after the audio-visual media counseling was carried out were normally distributed. It is known that the p-value of pretest knowledge was 0.200, posttest knowledge was 0.064; the pretest attitude was 0.065, the posttest attitude was 0.070 and the pretest

practice value was 0.175, the posttest practice was 0.063. The p-values are greater than 0.05, so the data in this study was normally distributed (Table 3).

Table 3. Normality test results

	Kolmogorov-Smirnov[a]		
	Statistic	df	p-value
Pretest for knowledge	0.119	35	0.200*
Posttest for knowledge	0.167	35	0.064
Pretest for attitude	0.144	35	0.065
Posttest for attitude	0.172	35	0.070
Pretest for practice	0.126	35	0.175
Posttest for practice	0.169	35	0.063

Table 4. The results of paired samples t-test

		Mean	n	Std. deviation	Std. error mean
Pair 1	Pretest of knowledge	10.0857	35	3.59224	0.60720
	Posttest of knowledge	14.9143	35	3.35517	0.56713
Pair 2	Pretest of attitude	14.4857	35	3.32876	0.56266
	Posttest of attitude	16.3143	35	2.69827	0.45609
Pair 3	Pretest of practice	5.7714	35	1.78368	0.30150
	Posttest of practice	8.4857	35	1.29186	0.21836

From the output data of 35 respondents, the results obtained, for the average value of knowledge pretest 10.0857 < posttest knowledge of14.9143, it means descriptively there was difference in average knowledge between pretest and posttest. For the mean value of attitude pretest of 14.4857 < posttest attitude of 16.3143, it means descriptively there was a difference in the average attitude between pretest and posttest. For the average value pretest practice 5.7714 < posttest practice of 8.4857 it means that descriptively there was a difference in the average attitude between the pretest and posttest. Furthermore, to prove whether the difference is significant or not, a paired sample t test will be carried out in the Paired samples test output table (Table 4).

Tabel 5. Paired samples correlations

		n	Correlation	p-value
Pair 1	Pretest and post test of knowledge	35	0.862	0.000
Pair 2	Pretest and post test of attitude	35	0.660	0.000
Pair 3	Pretest and post test of practice	35	0.420	0.012

The results in the table showed the results of the correlation test or the correlation between the pretest and posttest data. It is known that the knowledge correlation coefficient was 0.862 with a p-value of 0.000, so it can be concluded that there was an influence between the pretest and posttest. The attitude correlation coefficient was 0.660 with p-value of 0.000, so it was concluded that there was an influence between the pretest and posttest. The attitude correlation coefficient was 0.660 with p-value of 0.000, so it can be concluded that there was an influence between the pretest and posttest (Table 5).

Table 6. Table paired samples test

		Paired differences					t	df	p
		Mean	Std. Deviation	Std. Error Mean	95% CI Lower	95% CI Upper			
Pair 1	Pretest and post test of knowledge	-4.828	1.838	0.3108	-5.460	-4.196	-15.53	34	0.000
Pair 2	Pretest and post test of attitude	-1.828	2.549	0.4309	-2.704	-0.952	-4.243	34	0.000
Pair 3	Pretest and post test of practice	-2.714	1.707	0.2886	-3.300	-2.127	-9.404	34	0.000

It is known that the p-value of knowledge was 0.000, attitude was 0.000 and practice was 0.000 (there was a significant difference between knowledge, attitude and practice before and after counseling on stunting

prevention with audio-visual media. There was an increase in the knowledge, attitudes and practices of respondents after receiving counseling using audio-visual media.

DISCUSSION

The results of data processing obtained that there was a significant difference between knowledge, attitude and practice in stunting prevention before counseling with audio-visual media and after counseling/intervention. This study was in accordance with the results of S. Anggraini's research in Semantic Scholar in 2020, showing that pregnant women have a significant difference between the knowledge and attitudes of pregnant women before and after the intervention using audio-visual media.

The results of [7], 2019, research on 1,008 pregnant women and mothers with children in Africa with interventions Providing health education through a mobile video intervention program for exclusive feeding for children with short videos with a duration of 2-5 minutes in accordance with health standards explained: there is an impact from the provision of health education using the audiovisual method on increasing mother's knowledge in child nutrition. All audiovisual videos can increase mother's knowledge. Increased mother's knowledge includes: increasing mother's knowledge and awareness in providing additional food, increasing mother's knowledge in feeding practices to children, increasing mother's knowledge about the importance of intake of fruits and vegetables and animal protein for nutritional fulfillment, increasing mother's knowledge in feeding and breastfeeding exclusive.

Health education is one of the factors that influence an educational process that has an impact on achieving an optimal educational outcome. Likewise with research by Ilmanisak R, Pudjirahaju A, Aswin AAGA in 2017 on supplementary of breastfeeding, Education, Mothers' Attitudes and Energy Consumption Levels for Stunting Children Age 7-24 Months. Health Educators, health education can affect the learning process, through the provision of health education to a person it can increase knowledge, and be able to improve behavioral ability to achieve health. The provision of health education, one of which uses the audiovisual method, is very effective because mothers can repeat and re-understand what has been explained or has been conveyed. The audiovisual method was a learning media or extension media to provide important information to be conveyed [8].

Audiovisual method contains elements of sound and images that can be seen through videos, films, and others. The audiovisual method can be a supporting medium for conducting counseling because the information provided is concise and clear, interesting and easy to understand for mothers and can also increase one's knowledge. The advantage of the audiovisual method over other methods is that it is easy and effective. The use of audiovisual media has various types such as short films, videos, advertisements, animated videos, and graphic videos. This large number of media choices can make it easier for participants and make participants not bored with ordinary counseling which is carried out using the lecture method using posters and flipcharts. Various kinds of media that exist in the audiovisual method are able to provide interesting and brief information about information about nutrition, diet, carbohydrate adequacy, good nutrition and protein as well as environmental hygiene that must be done by mothers.

According to the researcher, the audiovisual method can stimulate two senses, namely the eyes and ears simultaneously so that mothers are more focused on the material given. Delivery through words alone is very less effective or the lowest intensity. The use of the audiovisual method is an experience of one of the principles of the educational process. The audiovisual method is very helpful in conveying information about balanced nutrition for toddlers to mothers so that the information can be conveyed more clearly and precisely. Audiovisual media also explains an object that can be given, for example the food consumed contains carbohydrates, proteins, minerals and so on. Mother's level of knowledge about nutrition is one of the factors that can affect the occurrence of stunting in children under five. The increase in knowledge occurs because of the will in oneself mothers to follow and know stunting prevention efforts. Mother's knowledge is an indirect cause of child stunting because it affects what food is given to children and is also one of the factors that influence food intake in understanding food, health and nutrition.

Failure to grow in children (stunting) is a challenge in the development of quality Indonesian people. The number of stunting cases in Indonesia is still quite high, therefore, prevention is necessary. Stunting prevention starts from the preparation of the mother-to-be to the period of maintaining the baby's development so that the child's quality of life is better. Researchers conducted research on the Effect of Health Counseling with Audio Visual Media on Changes in Mother's Knowledge, Attitudes and Practices in Preventing Stunting in Doloksanggul District, Humbang Hasundutan Regency in 2021.

According to researchers, the audiovisual method can stimulate two senses, namely the eyes and ears simultaneously so that mothers are more focused on the material given. Delivery through words alone is very less effective or the lowest intensity. The use of the audiovisual method is an experience of one of the principles of the educational process. The audiovisual method is very helpful in conveying information about balanced nutrition for toddlers to mothers so that the information can be conveyed more clearly and precisely.

CONCLUSION

The results obtained from counseling using audio-visual media were significant differences in knowledge, attitudes and practices before and after intervention with audio-visual media. Health education using audiovisual media can increase the knowledge of mothers with stunting children in fulfilling nutrition for children with stunting and parenting patterns for stunting children. There is an effect of using audiovisual media on increasing knowledge, attitudes and practices of mothers about stunting prevention.

Based on the conclusions and results in this study, the researchers provide the following suggestions. For respondents, namely carrying out stunting prevention efforts (fulfillment of pregnancy nutrition and blood supplement tablets, exclusive breastfeeding, complementary feeding, giving vitamin A, complete basic immunization, clean and healthy lifestyle and monitoring at integrated service post/Posyandu. It is hoped that both pregnant women and mothers who have babies under two years old will also actively seek information related to health education regarding the fulfillment of child nutrition through social media, print media, and articles on the internet. Community health center/Puskesmas considered to develop innovative and more interesting health promotion media (eg : animated videos, motion graphics, etc.). It is better if the health promotion media can also be shared widely on the internet and social media (Instagram, whatsapp, facebook, youtube) so that the public can easily access the information conveyed by the Puskesmas. In addition, the delivery of health materials can also be broadcast through LED TVs in the patient waiting room so that patients/visitors can obtain health information while waiting in line. And actively conduct health education about stunting prevention in their working areas, both through health education through social media and YouTube channels. In addition, the Health Office can also urge hospitals/clinics in their area to participate in stunting prevention campaigns through social media and print media in their workplaces. It is expected to further examine the comparison of knowledge between counseling through audio-visual media and other health promotion media. As well as developing other more innovative health promotion media related to stunting material.

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