



The Effectiveness of Animation Videos on Knowledge of Prospective Brides in Efforts to Prevent Stunting

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Abstract

Introduction: According to data from the World Health Organization (WHO), the prevalence of stunting is highest in the Southeast Asia region (SEAR), one of which is Indonesia. Efforts to prevent stunting start from preconception, by providing knowledge and understanding regarding fulfilling nutritional intake before pregnancy.

Objective: This research aims to analyze the effectiveness of using animated videos on the knowledge of prospective brides and grooms in efforts to prevent stunting in, Darmaraja District, Sumedang Regency.

Method: The research method is quantitative with a quasi-experiment in the form of a pretest and posttest design. The sample consisted of 102 people. Consecutive sampling research. Research in September-November 2023. Data analysis using the Mann-Whitney test.

Result: The research results showed that the pretest intervention group's knowledge was 76%, posttest the use of animated videos was 88% with a value of $p=0.002$ ($p<0.05$). The effectiveness of animated videos with N-Gain is 60.1%, meaning it is quite effective.

Conclusion: Animated videos increase knowledge of prospective brides and grooms in preventing stunting and animated videos are effective in increasing the knowledge of prospective brides and grooms in efforts to prevent stunting in Darmaraja District, Sumedang Regency.

Keywords: Animation Videos, Knowledge, Prevent Stunting, Stunting

Introduction

The incidence of stunting in Indonesia is quite high compared to middle-income countries. The incidence of stunting according to Basic Health Research in 2018 was 10.2%, while the prevalence of stunting in children under five was 30.8%.⁹ Based on the 2021 Indonesian Toddler Nutrition Status Survey, the stunting rate in Indonesia has decreased from 27.7% in 2019 to 24.4% in 2021, while the underweight figure has increased from 16.3% in 2019 to 17% in 2021 (Kemenkes RI, 2018).

The West Java National Population and Family Planning Agency reports that the prevalence of stunting in West Java has reached 29, 2 percent. This stunting case is considered to have a significant impact on the economy and demographics in West Java. At the beginning of 2019, there was no reduction in the stunting rate in West Java and it was still the same as the previous year, 2020 it was 26.21%, every year there was a decrease in 2021 by 24.5%, and in 2022 by 20.2% (Java Health Service West, 2020).

In 2018, the prevalence of stunting in Sumedang Regency was 32.2%, decreased in 2019 by 24.43%, and decreased again in 2021 by 22%, but in 2022 Sumedang was recorded as the region with the highest prevalence of stunted toddlers in West Java. , namely reaching 27.6% in the 2022 SSGI (Kemenkes RI, 2022).

The problem of stunting can be prevented. Various sensitive and specific intervention programs can be implemented as stunting prevention programs if given to the right targets. In efforts to prevent stunting, priority targets still focus on groups of pregnant women and breastfeeding mothers as well as on children aged less than two years (under-fives).

Referring to the definition of the First 1000 Days of Birth, life begins from the moment of conception, if the priority target is pregnant women then there will be a period that is missed and has not been part of what is outlined in the implementation of the First 1,000 Days of Birth saving program, namely the preconception period (Maulina R, 2021). According to the World Health Organization, efforts to prevent stunting can be started since preconception, women of childbearing age can begin to be given knowledge and understanding of the fulfillment of nutritional intake before pregnancy is important.

Preconception nutrient fulfillment can prevent malnutrition during pregnancy. Adequate nutrient intake during pregnancy can prevent stunted growth in the unborn child. Women of childbearing age as prospective mothers are a vulnerable group who must pay attention to their health status, especially their nutritional status. The quality of the next generation will be determined by the condition of the mother before and during pregnancy (Rokhanawati Dewi, 2017). It is very important to pay attention to preconception health, including nutritional status, especially in efforts to prepare for pregnancy because it will be closely related to pregnancy outcomes.

Pregnant women who experience malnutrition are 7 times more likely to have stunted children, 11 times underweight children, and 12 times wasted children compared to pregnant women with good nutritional status (Maulina R, 2021). Efforts to prevent stunting can be included as one of the materials in prospective bride and groom classes held by the Office of Religious Affairs or religious institutions as one of the requirements when registering marriage plans.

The increase in respondents' knowledge is greatly influenced by the educational media used. The midwifery service innovation created by the author is in the form of an animated video that is interesting and easy to understand by teenagers, especially prospective brides so that they can apply it in everyday life and be able to prepare for pregnancy and childcare to prevent stunting.

Objective

This research aims to analyze the effect of animated videos on the knowledge of prospective brides and grooms in preventing stunting in Darmaraja District, Sumedang Regency, and to analyze the effectiveness of animated videos in counseling prospective brides and grooms in efforts to prevent stunting in Darmaraja District, Sumedang Regency.

Method

The quantitative research method uses an analytical research strategy quasi-experimental design with a pretest-posttest design approach. The intervention group and control group had their level of knowledge measured using the same questionnaire before and after the counseling. The difference between the two groups, namely the intervention group was given counseling using an animated video after conducting the pretest, while the control group was given counseling using an animated video after the posttest. Mann-Whitney and N-Gain.

Result and Discussion

This research is a test of the effectiveness of animated videos on prospective brides' knowledge in preventing stunting at the Darmaraja District Religious Affairs Office, Sumedang Regency for prospective brides and grooms. The number of subjects involved in this research was 102 prospective brides and grooms, including 51 people in the intervention group and 51 people in the control group who met the inclusion criteria and during the study no respondents experienced dropouts.

Table 1. The Effect of Using Animated Videos on Candidate Knowledge Bride and Groom at the District Religious Affairs Office, in Darmaraja District, Sumedang Regency

Knowledge of Stunting Prevention	Intervention Group			Control Group			P - value
	Before n=51	After n=51	Mean	Before n=51	After n=51	Mean	
Good	2	32	60,2	0	17	42,8	0,002
Enough	8	11		5	29		
Less	41	8		46	5		

*Man Whitney Test

The results of Table 1 show knowledge results with $p=0.002$ ($p<0.05$), meaning that the use of animated videos had a greater influence on the knowledge of the intervention group given after the pretest compared to the control group who were given counseling with animated videos after carrying out the posttest.

Table 3. The Effectiveness of Animated Videos Based on Pretest and Posttest N-Gain Value Calculation

Media	Average	Gain Score	Description
<i>Intervention Pretest</i>	68,9	60,1	Moderate
<i>Posttest Intervention</i>	87,6		

*Uji N-Gain

The results of Table 3 show the effectiveness of educational videos based on the N-Gain calculation of 60.1%, meaning that it is quite effective to use educational videos for brides and grooms in preventing stunting.

Conclusion

The results of the study showed that the respondents' knowledge of using animated videos had a greater influence on the knowledge of the intervention group given after the pretest compared to the control group who were given counseling with animated videos after carrying out the posttest.

In this study, the age of the bride-to-be is mostly more than 20 years old. The characteristics of a person's age can affect the absorption of information, the older a person gets the more mature a person's thinking patterns (Notoatmodjo, 2017). The use of appropriate and interesting educational media in accordance with the learning methods of late adolescence or late adolescence, namely ages 18-21 years is very important (Budiman, 2018). This period is characterized by the final preparation for entering adult roles, according to the results of this study that the majority of respondents were aged 19-35 years, but respondents in this study were under 19 years of age (Nurlinda, 2021). Counseling with educational videos affects the gender of the respondents, in this study the gender of the respondents, namely men and women from prospective brides, male respondents had lower knowledge and attitudes compared to female respondents (Kurniawati N, 2021). This is in line with (Saputra O, 2021) research⁵⁷ that men have a 3.742 times greater risk of having a Clean and Healthy Lifestyle than female residents, in their discussion that demographic factors (gender) affect health behavior.

In line with the results of research by Maidar, Zakaria R, (2022) that the age of the mother is less than 19 years old has an impact on the behavior of accessing health services and health behavior and the age factor of the mother with low health literacy will have an impact on poor health status. In line with the results of research by Wemakor et al.⁴⁹ that age is a risk factor for stunting with results showing children of teenage mothers and compared to adult mothers, 8 times more prone to stunting, 13 times more prone to underweight. The risk of malnutrition in children increases in young mothers.

The animated video to prevent stunting aims to increase the knowledge of prospective brides and grooms by watching the animated video directly. It is hoped that prospective brides and grooms can anticipate stunting incidents with a healthy lifestyle. In line with the results of Hendriyani and Jayandra's research, building interactive stunting educational media for young brides-to-be based on augmented reality and educational games is an effort to increase teenagers' knowledge about stunting (Erni, Marbun R, 2021).

The results of this research are in line with (Fitriami E, 2022) research that the intervention was given treatment in the form of stunting education using Android, and the research results showed a significant increase in the mean value. This shows a significant improvement in attitudes after being given treatment. The results of this research are also in line with the research results of Ernawati R, *et al.* (2021) Health education via web applications was more effective on the pretest and posttest scores ($p=0.001$), while the control group reading books showed the same scores for pretest and posttest ($p=0.960$). Health education through web-based applications consisting of videos about toddler growth and development and stunting can increase mothers' knowledge about monitoring toddler growth and development and is expected to prevent stunting.

The research results show that the effectiveness of animated videos on prospective brides and grooms is quite effective. This stunting prevention educational video has the following specifications: MP4 video type, 198,150 kb, video duration 50 seconds, frame 1920 x 1080. The health education material is provided through animated videos about the preparation of prospective brides and grooms for pregnancy and childcare to prevent stunting.

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In line with the results of Hendriyani Y, (2022) research, building interactive stunting educational media for young brides-to-be based on augmented reality and educational games is an effort to increase teenagers' knowledge about stunting. The results of this research are also in line with research by Erni, Marbun R, (2021) which shows the Android-based application "My1000Days" is effective in increasing a captain's knowledge about the First 1,000 Days of Life. This research is the same as research conducted by Rabuti et al. The EduStunting android application can increase teenagers' knowledge of stunting and related factors (balanced nutrition and anemia).

Educational videos aim to increase the knowledge of prospective brides by directly viewing educational videos, it is hoped that prospective brides can anticipate the incidence of stunting with a healthy lifestyle. In line with the results of Hendriyani Y, (2022) research that building stunting interactive educational media for teenage brides-to-be based on augmented reality and educational games as an effort to increase teenage knowledge about stunting. The results of this study are also in line with Erni, Marbun R, (2021) research showing the android-based application "My1000Days" effectively increases catin's knowledge about the First 1,000 Days of Life. This research is in line with research conducted by Resmiati, Putra ME, (2021) EduStunting android application is able to increase adolescents' knowledge of stunting and related factors (balanced nutrition and anemia). According to Notoatmodjo, (2018), knowledge is the result of knowing after people access information through sensing a particular object. Knowledge or cognitive is an important domain in shaping a person's actions (over behavior), behavior based on knowledge will be more inherent than behavior that is not based on knowledge.

In line with Sunaeni, Abduh AIM, (2022) opinion⁵³ audiovisual media contributes greatly to aspects of information and persuasion in behavior change, this is due to the stimulus of the sense of hearing and the sense of sight of approximately 75-87% in channeling information to the brain. Based on Edgar Dale's cone of experience (learning pyramid) theory of audiovisual media also states that 50% of a person learns from what he sees and hears.

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