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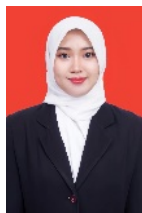
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THE EFFECT OF EDUCATIONAL ANIMATION VIDEOS ON INCREASING PUBLIC KNOWLEDGE ABOUT STUNTING PREVENTION IN KALIJAGA VILLAGE

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Abstract

Background. Stunting is a serious health problem in RW 04 Kalijaga Village due to limited public knowledge of nutrition and child-rearing practices. Previous research has shown that education on innovative products made from tempeh waste has increased public knowledge of stunting prevention.

Aims. This research aims to expand educational interventions by using animated videos as counseling media in Posyandu.

Methods. The method used is quasi-experimental with a pre-post test design, as well as measuring public perception using the Likert scale.

Result. The results showed an increase in knowledge from 70% to 95% and an 85% increase in positive perceptions.

Implementation. The use of animated videos not only increases public understanding but also strengthens the results of previous research on the importance of visual-based education and innovative products in supporting stunting prevention.

Keywords: stunting, animated video, health education, public perception, Posyandu



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INTRODUCTION

Stunting is a condition characterized by failure to grow due to chronic malnutrition, recurrent infections, and inadequate parenting during the first 1,000 days of life (Ministry of Health of the Republic of Indonesia, 2022). According to WHO (2021), stunting not only has an impact on height but also inhibits children's cognitive development. In RW 04 Kalijaga

Village, the prevalence of stunting is still high, mostly due to low public knowledge about balanced nutrition and proper parenting. Previous research at the same location showed that nutrition education using innovative products, such as high-protein flour from tempeh waste and silky soymori, significantly increased public knowledge (Lairie et al., 2024). However, an additional approach is needed to increase public perception of stunting prevention more broadly. The use of animated video is expected to strengthen educational messages, consistent with UNICEF (2020), which reports that visual media can increase information retention by up to 80% compared with conventional methods. Effective education-based interventions not only focus on providing information, but also utilize digital media such as animated videos and educational comics to expand the reach of information to the public (HALIMAH, 2024)

Situation Analysis

Kalijaga Village is located in Harjamukti District, Cirebon City, with an area of approximately 4.65 km². This area has a growing population and is dominated by workers in the trade, services, and small and medium-sized enterprises (SMEs) sectors. RW 04, the location for the implementation of the Real Work Lecture (KKN), has a population of approximately 980 people distributed across RT 01, RT 02, and RT 03. People in RW 04 have a relatively high level of economic activity but still face challenges in health, digital literacy, and the use of innovation in MSMEs.

In terms of human resources, Kalijaga Village has significant potential, with a large proportion of the population in the productive age range. This can be an opportunity for community-based economic development, especially in the MSME and creative entrepreneurs sectors. In addition, public awareness of education and health is high, as evidenced by residents' active participation in religious activities, posyandu, and community empowerment programs. With the right approach, the people of Kalijaga can be more receptive to digital innovations across various aspects of life, particularly in improving health outcomes and the local economy. In the health sector, Kalijaga Village has several health service facilities, such as Posyandu and Posbindu, spread across various RWs, including RW 04. This facility plays an important role in providing health services to pregnant women, infants, and older adults. However, there are still challenges in increasing public awareness of the importance of preventive health and monitoring of child growth and development. Based on data from the Indonesian Nutrition Status Survey (SSGI) (Ministry of Health of the Republic of Indonesia, 2022), the stunting rate

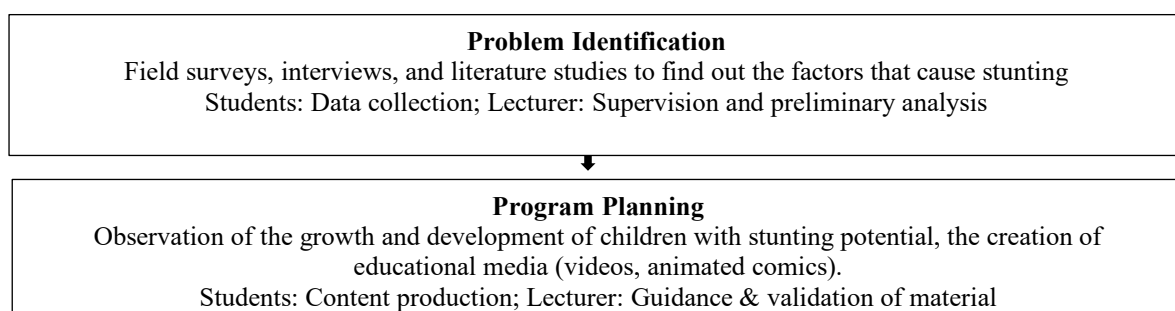
in Harjamukti District is among the highest in Cirebon City. Therefore, nutrition education and stunting prevention are two of the main focuses in the KKN program. Previous research at the same location showed that nutrition education using innovative products, such as high-protein flour from tempeh waste and silky soymori, significantly increased public knowledge (Lairie et al., 2024). However, an additional approach is needed to increase public perception of stunting prevention more broadly. The use of animated video media is expected to strengthen educational messages, in line with UNICEF research (2020), which states that visual media can increase information retention up to 80% more effectively than conventional methods.

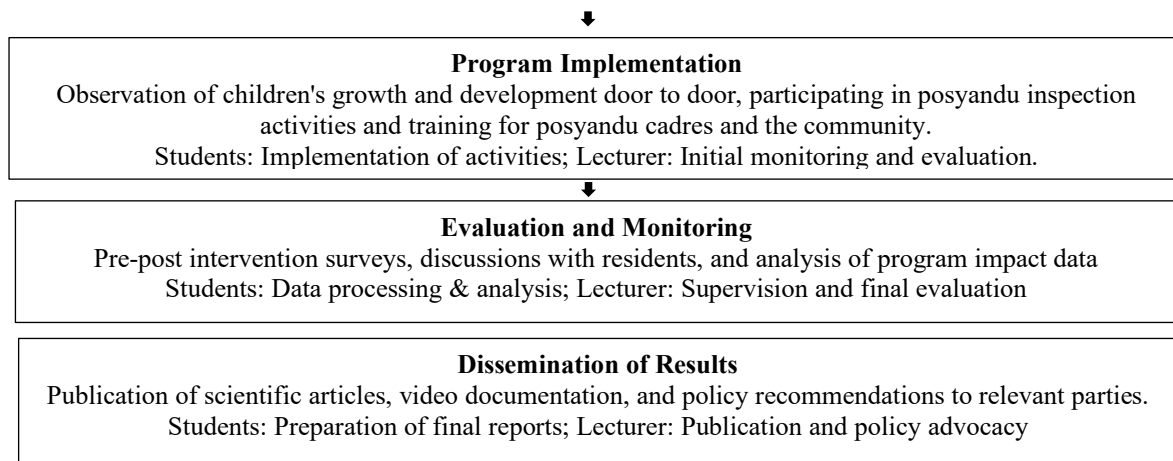
Problems and Solutions

Although Kalijaga Village has considerable potential, several challenges remain, including a high rate of stunting that requires further nutritional interventions and the need for effective parenting practices, which significantly influence child development, particularly in preventing stunting. According to research published in the Journal of Jurmakemas, parenting education aligned with children's developmental needs can increase knowledge and modify parental behavior, thereby supporting children's optimal growth and development (Indrasari, 2023). Effective education-based interventions not only provide information but also use digital media, such as animated videos and educational comics, to expand public reach (HALIMAH, 2024). The urgency of this research lies in the need for education-based interventions that improve parents' understanding of child-rearing. Education on parenting that aligns with child development needs and monitoring growth and development from an early age are strategic steps in reducing stunting rates. By using digital media, such as animated videos and educational comics, it is hoped that information will be more accessible to the public and that interventions will be more effective.

METHODS

Team Task Activity Stage





This study uses a quasi-experimental design with a pre-post test method and analysis of public perception through a Likert scale questionnaire. The stages of the research include:

1. Animation Video Creation

The video provides education on the causes, impacts, and prevention of stunting, and reintroduces innovative tempeh-waste products as an additional source of nutrition for toddlers.

2. Implementation of Counseling at Posyandu

An animated video was played during counseling activities at the Posyandu, followed by an interactive discussion to deepen participants' understanding.

3. Measurement of Knowledge and Perception

The pre-post test questionnaire was used to measure the increase in public knowledge, as well as the Likert scale to assess public perception of animated videos and their effectiveness in changing perspectives on stunting prevention.

4. Data Analysis

To analyze the data, the *T-Test* was used to see significant differences in knowledge before and after the intervention as well as *Pearson* correlation analysis to measure the relationship between people's positive perceptions and knowledge gains

DISCUSSION

The use of animated videos as a learning medium in the Real Work Lecture (KKN) program has shown significant effectiveness in improving the quality of education in the community. Several examples of implementation show that this media is able to make learning materials more interesting and easier to understand by various groups.

Overview of Parents' Knowledge about Stunting in RW 04 Kalijaga

An educational video animation on stunting in RW 04 Kalijaga focuses on increasing parents' knowledge of stunting. Based on the pre-test and post-test results shown in the video, there was a significant increase in respondents' knowledge of stunting. The average knowledge score increased from 7.67 in the pre-test to 12 in the post-test. Through interactive, easy-to-understand animations, the message about the importance of balanced nutrition and the benefits of innovative products is effectively conveyed.

Through animated videos, education about the importance of bringing children to posyandu, exclusive breastfeeding, and the use of tempeh waste as a source of nutrition was conveyed effectively. Respondents also understand the benefits of innovative products in preventing stunting. Video animation succeeded in creating positive behavior changes, where mothers began to routinely use products made from tempeh waste as additional nutrients in their children's daily menus.

Table 1. Pre-Post Measurement Results on Stunting Knowledge

Yes	Questions	Pre-Test (n)	Pre-Test (%)	Post Test (n)	Post Test (%)
1	Do you know what stunting is?	20	95,2381	21	100
2	Does the mother give exclusive breast milk for 6 months?	21	100	21	100
3	Do mothers give formula before the child is 6 months old?	1	4,761905	21	100
4		21	100	21	100
5	Does the mother give complementary foods to breast milk after the baby is 6 months old?	21	100	21	100
6		21	100	21	100
7	Do mothers often take their children to the posyandu for weighing?	21	100	21	100
8	Is the child's immunization complete?	16	76,19048	21	100
9	Do you know that tempeh waste can be used as a source of nutrition?	8	38,09524	21	100
10	Do you know about the nutritional content of tempeh waste?	5	23,80952	21	100
11	Have you ever used tempeh waste as a source of nutrition?	6	28,57143	21	100
12	Do you believe that tempeh waste can help solve stunting problems?	7	33,33333	21	100

Overall, the application of animated videos in KKN activities has a positive impact on the

learning process. This media not only makes the material more interesting, but also makes it easier to understand the concepts taught. Thus, the use of animated videos as a learning medium in the KKN program can be considered an effective innovation to improve the quality of education in the community



Figure 2. Animated Video Cover

Based on the questionnaire data, the pre-test results showed that the average knowledge of the public was 70%, while the post-test increased to 95% ($p < 0.05$). These results corroborate previous findings that education through innovative products made from tempeh waste is effective in increasing public knowledge about stunting (Lairie et al., 2024). Public perception of animated videos as an educational medium shows that 85% of respondents have a positive perception. There was a strong correlation ($r = 0.72$) between positive public perception and increased knowledge, showing that the better the public's perception, the higher their understanding of stunting prevention (Setiawan, 2021). This research not only shows the effectiveness of animated videos but also strengthens innovative product-based educational approaches. Messages about the benefits of high-protein flour and silky soymori from tempeh waste are more effectively received by the public when conveyed through attractive and interactive visual media (Purnamasari, 2022).

Education as an effective strategy in increasing public knowledge about stunting is supported by previous research. According to (Tarmizi, 2024) Increasing public knowledge through health education and counseling has proven to be effective in encouraging healthy behavior changes, including in aspects of nutrition and stunting prevention. The effectiveness of education in increasing public knowledge about stunting is supported by previous research. For example, research by (Indrasari, 2023) It shows that nutrition education is effective in increasing knowledge of stunting prevention in mothers who have children at risk of stunting.

This study found a significant increase in maternal knowledge after being given nutrition education, with a $p = 0.05$ value.

CONCLUSIONS

The use of animation videos as an educational medium at Posyandu RW 04 is effective in increasing knowledge and forming a positive public perception of stunting prevention. This research also corroborates the results of previous research that local product innovation made from tempeh waste can be part of an effective stunting prevention strategy.

It is hoped that this method can be adapted by other Posyandu as part of the continuous education program. Further research can focus on developing more interactive video content and evaluating its long-term impact on public health behaviors.

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