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## EDUCATIONAL VIDEO ON FOOD AND BEVERAGE SANITATION MANAGEMENT AS AN EFFORT TO PREVENT STUNTING

**Abstract.** Stunting is a condition in children characterized by length or height for age and sex less than the Standard Deviation based on the growth curve. One of the primary unresolved nutritional issues affecting toddlers in Indonesia is stunting. A number of factors, including poor hygiene practices and the cleanliness of food and beverages, contribute to stunting. Using instructional videos for counseling is one way to try to overcome this. The purpose of this study was to determine the difference in educational video counseling in increasing knowledge of food and beverage sanitation management as an effort to prevent stunting in Bibis Hamlet, Timbulharjo, Sewon, Bantul.

The design of this research is quantitative research. Respondents totaled 55 people. The sampling method is random sampling. This type of research is a quasi-experiment with the research design used One Group Pretest Posttest with Control Group Design. Therefore, counseling with educational videos can boost knowledge more than counseling with educational video leaflets, which will be used as a control group and an experimental group. The experimental group's value differed significantly from the control group's, according to the analysis using the Mann-Whitney test.

According to the findings of the study, counseling that uses instructional videos on food and beverage sanitation results in a 40% increase in knowledge. Using food and beverage sanitation leaflets for counseling results in a 37% increase in knowledge.

The conclusion of this study is that educational videos have a higher effect on improving food and beverage sanitation management in mothers of toddlers.

**Keywords:** Stunting, Hygiene, Educational Video, Leaflet.

## INTRODUCTION

Stunting is a condition in children characterized by lack of length and height for age and sex based on the growth curve. *Stunting* is one of the main nutritional problems in toddlers in Indonesia that has not been resolved. One of the causes of stunting is influenced by food and beverage sanitation and poor hygiene behavior.<sup>(1)</sup> This condition not only affects the child's physical growth, but also cognitive development and overall health. Stunting is one of the main nutritional problems in children under five in Indonesia that has not been effectively resolved. The prevalence of stunting in Indonesia is still relatively high, which is around 27.67% in 2021, indicating that almost a third of children in Indonesia experience this condition<sup>(2)</sup>.

One of the main factors contributing to stunting is poor food and beverage sanitation and hygiene behavior. Inadequate sanitation conditions can increase the risk of infection and disease, which in turn can interfere with the absorption of nutrients essential for child growth<sup>(3)</sup>. For example, children living in environments with limited access to clean water and proper sanitation facilities are more susceptible to diarrhea, which is one of the leading causes of malnutrition among under-fives.

In some rural areas in Indonesia, many families still use polluted water sources for their daily needs, including for cooking and drinking. In situations like this, children are highly likely to be exposed to pathogens that can cause gastrointestinal infections. When children have diarrhea, their bodies lose a lot of fluids and essential nutrients, which can lead to growth delays. In addition, in rural areas, although mothers have good knowledge of sanitation practices, limited access to sanitation facilities often hinders the implementation of these practices<sup>(4)</sup>. Therefore, it is important to not only improve knowledge, but also provide infrastructure that supports good sanitation practices. Improved access to clean water and sanitation can reduce child mortality from diarrhea by 50%<sup>(5)</sup>. This shows how important access to clean water and good sanitation is in preventing stunting.

In 2020, it was found that hand washing with soap can reduce the risk of diarrhea by 30%<sup>(6)</sup>. Diarrhea accounts for about 525,000 deaths among children under five each year<sup>(7)</sup>. In the context of Indonesia, where access to clean water is still limited in some areas, this figure could be even higher. When children have diarrhea, their bodies lose a lot of fluids and essential nutrients. Dehydration caused by diarrhea can worsen a child's health condition, which in turn can lead to delayed growth or stunting. Improved access to clean water and sanitation can reduce child mortality from diarrhea by 50%<sup>(8)</sup>. This shows that investing in clean water infrastructure is critical to improving child health and preventing stunting.

Apart from sanitation factors, an unbalanced diet is also a major cause of stunting. Many children in Indonesia do not get enough nutrition, especially protein, vitamins and minerals. Nutritious food is essential for children's physical growth and cognitive development. Children who eat nutritious foods, such as vegetables, fruits and animal protein sources, have a lower risk of stunting compared to those who eat processed foods that are low in nutrients<sup>(9)</sup>.

Poor hygiene behaviors, such as lack of hand washing before eating and after using the toilet, also play a role in the high stunting rate. Data shows that children living in

environments with poor sanitation have a higher risk of malnutrition. Therefore, health education is an important aspect of stunting prevention efforts.

From an economic perspective, stunting can also affect the productivity and quality of future human resources. Stunted children tend to have lower cognitive abilities, which has implications for their academic performance and ability to compete in the job market. Stunting can reduce a person's earning potential by up to 20% in adulthood<sup>(10)</sup>. Thus, stunting is not only a health issue, but also a social and economic issue that requires serious attention from the government and society.

Children who are stunted tend to have lower cognitive abilities compared to their nutritionally well-developed peers. Research shows that stunted children have lower IQs, which has direct implications for their ability to learn and understand concepts taught at school. Children who are stunted have lower scores in cognitive ability tests compared to children who are not stunted<sup>(11)</sup>. This suggests that stunting affects not only physical growth, but also mental development which is critical for success in school. Stunted children are 20% less likely to complete secondary education compared to well-developed children<sup>(12)</sup>. This is a clear indication that stunting can hinder individuals' access to better education, which in turn affects their future employment opportunities. Stunted individuals can lose up to 20% of their earning potential in adulthood<sup>(13)</sup>. This not only impacts the individual, but also the economy as a whole, as reduced purchasing power can hamper economic growth. Stunting not only affects individuals, but can also have a long-term impact on communities and countries, by reducing overall productivity and economic growth<sup>(14)</sup>.

The importance of early intervention cannot be overlooked. Research shows that intervention in the first 1000 days of life, from pregnancy to two years of age, is crucial to prevent stunting. Good nutrition during this period can help ensure optimal child growth and development. Therefore, programs targeting pregnant and breastfeeding mothers should be a priority in stunting prevention efforts.

The involvement of the private sector in efforts to overcome stunting is also noteworthy. Companies can contribute through corporate social responsibility (CSR) programs that focus on child health and nutrition. For example, companies can support nutrition counseling programs in schools or provide nutritious food for children in stunting-prone areas. Cooperation between the government, communities and the private sector is essential to create an enabling environment for healthy child growth. Stunting is a complex problem that requires a multidimensional approach. Efforts to address stunting must involve various sectors, from health, education, to the economy. By raising public awareness, improving sanitation, and providing proper education, we can reduce the prevalence of stunting and improve the quality of life of children in Indonesia.

Food and beverage sanitation is an effort to control food, people, places and equipment factors that can cause disease or health problems<sup>(15)</sup>. The principle of food and beverage sanitation hygiene is the control of places, equipment, people and food ingredients that can cause health problems or food poisoning.

Food and beverage sanitation hygiene is a crucial aspect in maintaining public health, as well as preventing various diseases that can be transmitted through the consumption of unclean food and beverages. Nearly 600 million people worldwide fall ill due to the consumption of contaminated food<sup>(16)</sup>. This shows how vulnerable people are to preventable

diseases by applying good hygiene principles. Next, we need to consider food storage practices. Improper storage can lead to the growth of harmful pathogenic bacteria. For example, meat stored at room temperature can quickly become contaminated with bacteria such as Salmonella or E. coli. Therefore, it is important to store food in the refrigerator at temperatures below 5 degrees Celsius to slow down the growth of bacteria. Applying the right storage temperature can reduce the risk of food poisoning by up to

80%(17). This is a concrete example of how simple actions can have a huge impact on public health. In addition, hygiene during cooking is equally important. Using clean and separate cooking utensils for raw and cooked ingredients is one way to prevent cross-contamination. For example, if we use the same cutting board to cut raw meat and vegetables, there is a possibility that bacteria from the meat can transfer to the vegetables that will be eaten raw. Hence, it is highly recommended to use different cutting boards and wash them with soap and hot water after use. This habit can significantly reduce the incidence of food poisoning<sup>(18)</sup>. Countries with strict regulations on food safety have seen a significant decrease in the incidence of food poisoning<sup>(19)</sup>. Efforts to control factors such as food, people, places and equipment are essential to reduce the risk of health problems. Attention to sanitary hygiene can prevent the occurrence of diseases caused by food contamination, which are often fatal to the health of individuals and society as a whole. Therefore, a systematic and integrated approach to maintaining food and beverage sanitary hygiene is necessary.

The principles of food and beverage sanitation hygiene include the control of various elements that have the potential to cause health problems. This includes monitoring the storage area, the equipment used, and the people involved in the food processing process. The six sanitation principles that must be applied are food selection, food storage, food processing, food transportation, finished food storage and food serving. Each of these principles plays an important role in ensuring that the food consumed is safe and does not contain pathogens or other harmful substances<sup>(20)</sup>.

The selection of quality food ingredients is a very important first step in the sanitization process. Food ingredients that are fresh and free from contamination will reduce the risk of food poisoning. In addition, food storage must also be done in an appropriate manner to prevent the growth of microorganisms. For example, storage at an appropriate temperature and keeping the storage area clean are essential to maintaining the freshness of foodstuffs. Research shows that many cases of food poisoning occur due to improper storage, which leads to the growth of pathogenic bacteria<sup>(21)</sup>.

Once the food ingredients have been properly selected and stored, the processing stage becomes crucial. Proper cooking can kill any harmful microorganisms that may be present in the food.

However, keep in mind that transportation of food should also be done carefully to prevent recontamination. For example, using clean and separate containers for cooked and raw food is an important step. Unhygienic transportation can be a major source of spreading disease-causing bacteria<sup>(22)</sup>. Hygienic food presentation is equally important. Food that has been cooked and stored properly should be presented in a clean and safe condition for consumption. This involves not only the cleanliness of the cutlery, but also the cleanliness of the hands of the person serving the food. Therefore, education on sanitary hygiene for the community needs to be improved so that they are more aware of the importance of

maintaining cleanliness in every aspect of food processing. This awareness can help reduce the incidence of food- and beverage-borne diseases.

The application of the principles of food and beverage sanitation hygiene is essential for maintaining public health. By controlling factors that have the potential to cause health problems, we can prevent food poisoning and diseases caused by the consumption of unclean food. Therefore, cooperation between the government, food industry players, and the community is needed to ensure that every stage in the food processing process is carried out with attention to good sanitation principles. By doing so, we can create a healthier and safer environment for all. Video is a medium that contains moving images and sound. Video is easily spread from one person to another which makes a great opportunity to be able to take advantage of this opportunity as a medium of education to the community. A video display that is seen and heard can make the audience remember 50% of the program impressions from the video. Video is a medium that contains moving images and sound, which has a unique ability to convey information in a dynamic and interesting way. In today's digital age, video has become one of the most effective communication tools, allowing the delivery of messages in a more interactive and easily understood way. This makes video a very potential tool to be used in the field of education. With the easy access and dissemination of videos through various platforms, people now have greater opportunities to get quality information and knowledge. Research shows that when a video is seen and heard, the viewer remembers 50% of the program from the video<sup>(23)</sup>.

The effectiveness of video as an educational medium lies not only in its ability to capture the audience's attention, but also in the clearer and more structured way in which information is delivered. The use of multimedia, including video, can improve understanding and retention of information because it combines visual and auditory elements<sup>(24)</sup>. This is particularly important in learning contexts, where students often face challenges in understanding complex concepts. With videos, difficult information can be explained through concrete illustrations and examples, making it easier for students to understand and remember the material being taught.

For example, a learning video on science can show live experiments, provide a clearer picture of the processes taking place, and allow students to see real applications of the theories learned.

Effective feedback and the use of quality resources can significantly improve student learning outcomes<sup>(25)</sup>. Thus, the utilization of video as an educational tool should be done with care and caution, to ensure that the learning objectives are well achieved. With the right approach, video can be an invaluable tool in improving the quality of education in society.

The Special Region of Yogyakarta (DIY) is one of the areas with high data on *stunting* cases, one of which is Bantul Regency. In 2023 more than 47,000 babies under 5 years old or toddlers were found to be 6% *stunted*<sup>(26)</sup>. One of the Bantul areas where there is *stunting* data is Timbulharjo. Based on the description of the data above, the researcher is interested in examining the effect of educational videos on increasing knowledge of food and beverage sanitation in mothers of *stunting* toddlers in Bibis hamlet, Timbulharjo, Sewon, Bantul

**METHODS**

This type of research is a *quasi-experiment* research with the research design used *One Grup Pretest Posttest with Control Groub Design*. The type of research data used is primary data. Primary data was obtained directly from respondents through filling out questionnaires to measure knowledge about food and beverage sanitation. The questionnaire was given to respondents before and after receiving educational video counseling to see the knowledge of mothers of toddlers about food and beverage sanitation.

This research procedure was carried out through 3 stages, namely the preparation stage, the research implementation stage, and the data processing stage. In the preparation stage, licensing was carried out at the research location, making questionnaires, making videos and *leaflets*, conducting validity tests, determining the time of counseling, and making a research code of

ethics. The next stage is the research implementation stage, the first is giving *pretest* questionnaires to mothers of toddlers, showing educational videos, and finally filling out *posttest* questionnaires. The last stage is the data processing stage, namely entering data before and after treatment into a *dummy table*, then processed using the *SPSS* application.

**RESULTS**

**Respondent Characteristics**

Characteristics of Respondents seen based on Gender, Age, and Education Level are presented in the following table:

**Table 1** Characteristics of Respondents by Gender, Age, and Level of Education

Characteristics	Experiment Group		Control Group	
	Total	Percentage	Total	Percentage
<b>Gender</b>				
Male	-	-	-	-
Female	55	100%	55	100%
<b>Age</b>				
20 - 29 Years	24	44%	28	51%
30 - 39 Years	25	45%	22	40%
40 - 49 Years	6	11%	5	9%
<b>Education</b>				
SD	5	9%	5	9%
SMP	7	13%	10	18%
HIGH SCHOOL	33	60%	32	58%
S1	10	18%	8	15%

The characteristics of respondents based on gender in the experimental group and control group were 100% female. Characteristics of respondents based on age in the experimental group were mostly 30 - 39 years old (45%), while in the control group most were 30 - 39 years old (40%). The characteristics of respondents based on the

level of education in the experimental group were highest in high school / equivalent (60%), while in the control group the highest was high school/ equivalent (58%).

**DATA ANALYSIS**

Data analysis of differences in knowledge scores in the experimental group and control group is presented in table 2 below:

**Table 2** Knowledge Score in Experimental Group and Control Group

Group	Average Knowledge Score			
	<i>Pretest</i>	<i>Posttest</i>	Difference	Knowledge Enhancement
Experiment	64	89,9	25,72	40%
Control	57,55	84,64	21,45	37%

Based on the table above, it shows that the difference in scores in the experimental group after being given counseling using educational videos is 25.72 (40%) and the difference in scores in the control group after being given leaflet counseling is 21.45 (37%), which means that the increase in knowledge using videos is higher than using leaflets.

**Shapiro Wilk Normality Test**

**Table 3.** Normality Test Results for *Pretest* and *Posttest* Data of Experimental Group and Control Group

Group	Sig. ( <i>p.value</i> )		Description
	<i>Pretest</i>	<i>Posttest</i>	
Experiment	0,003	0,001	Data is not normally distributed
Control	0,003	0,001	Data is not normally distributed

In the table above, it is found that the *Pretest* and *Posttest* in the experimental and control groups obtained a *p value* < 0.05, which means that the data is not normally distributed, so the test continues using the *Mann-Whitney Test*.

**Mann-Whitney Test**

**Table 4.** *Mann-Whitney Test* Results of Experimental Group and Control Group

Group	Mean Rank		Sig. ( <i>p.value</i> )
	<i>Pretest</i>	<i>Posttest</i>	
Experiment	44,03	66,97	0,000
Control	48,44	62,56	0,000

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The results of the *Mann-Whitney Test* for the Experimental Group and Control Group were obtained 0.000. So the values are normally distributed on the *Pretest* and *Posttest* of the experimental group and the control group.

## DISCUSSION

The increase in knowledge of the experimental group through counseling using educational videos showed significant results. Based on the results of the research conducted, the average value of knowledge scores on the pretest and posttest experienced a striking increase, with the pretest average score of 64 and posttest reaching 89.90. This shows a significant positive change in the participants' understanding of the material taught. The percentage difference between the pretest and posttest scores using this educational video reached 25.72 points, which is equivalent to a 40% increase. This improvement not only demonstrates the effectiveness of the extension method using educational videos, but also illustrates how visual media can contribute to the learning process. Educational videos have greater appeal compared to traditional extension methods. By using images, sound and animation, videos can present information in a more engaging and digestible way. In the world of health education, a video showing a medical procedure or an explanation of a particular disease can give participants a clear and concrete picture. This is very different if the information is only delivered in the form of text or lectures, which tend to be boring for participants.

Previous research also supports these findings, where the use of videos as teaching aids has been shown to increase the appeal of the material and facilitate better understanding among learners<sup>(27)</sup>. In this case, educational videos serve as a tool that not only conveys information, but is also able to stimulate participants' interest and engagement in the learning process. The use of videos in interactive learning can increase students' motivation and help them understand complex concepts better<sup>(28)</sup>.

The success of using educational videos in counseling can also be seen from the aspect of participant engagement. In this study, participants who were engaged in the counseling sessions using videos showed higher enthusiasm than those who attended the sessions without videos. This engagement is very important, as research shows that students who are actively involved in the learning process tend to have better learning outcomes<sup>(29)</sup>. By actively engaging participants through visual media, they not only receive information, but also participate in the learning process, which in turn improves their understanding of the material.

Furthermore, it is important to consider the context in which educational videos are used. In a diverse environment where participants have different backgrounds, videos can serve as a bridge that unifies their understanding. For example, in public health education, videos that showcase different cultures and health practices can help participants understand health issues from a broader perspective. Videos that are relevant to the social and cultural context of the participants can increase the relevance of the material and encourage more in-depth discussions<sup>(30)</sup>.

However, while educational videos have many advantages, it is important to remember that their effectiveness also depends on how they are produced and



presented. Low-quality videos, with blurry images or unclear sound, can disrupt the learning process and reduce participants' interest. Therefore, it is important to ensure that videos used in extension are of good quality and present information in a clear and engaging way. Elements of video design, such as duration, clarity, and use of graphics, greatly influence the effectiveness of videos in education<sup>(31)</sup>. Accessibility of educational videos contributes to increased participation and engagement of participants in educational programs<sup>(32)</sup>.

This increase in knowledge scores can be analyzed from a learning theory perspective. Cognitive theory states that individuals understand and remember information more easily when it is presented in an interesting and interactive format<sup>(33)</sup>. Collaborative learning can improve academic outcomes and social skills. This suggests that social interaction in a learning context can enrich the learning experience and improve information retention<sup>(34)</sup>. A supportive learning environment can increase intrinsic motivation, which in turn contributes to improved knowledge scores<sup>(35)</sup>. Wise utilization of technology can be an effective strategy to improve knowledge scores.<sup>(36)</sup> Educational videos, with their combination of visuals and audio, create a more holistic learning experience, allowing participants to relate new information to existing knowledge.

This explains why participants in the experimental group showed a higher increase in knowledge compared to the control group who did not use educational videos. From the results of this study, it can be seen that the use of educational videos as an extension method is very effective in improving participants' knowledge.

Therefore, it is important to consider the application of this method in other education and extension programs. In today's digital age, where many individuals prefer to consume information through visual media, educational videos offer the perfect solution. Participants who learn through videos have higher information retention rates compared to those who learn through traditional methods such as lectures<sup>(37)</sup>. By using visual, audio and narrative elements, videos can convey complex information in a way that is easier to understand. By utilizing existing technology and media, we can create a more dynamic and engaging learning environment, which in turn can improve overall learning outcomes. Customization of video content according to the audience can increase the effectiveness of extension and learning<sup>(38)</sup>. Further research is needed to explore other aspects of using different educational videos and to identify the best strategies for implementation. Communities exposed to educational videos on vaccination showed a significant increase in knowledge and awareness compared to the group that only received information through printed brochures<sup>(39)</sup>. This suggests that videos not only serve as information delivery tools, but also play a role in shaping people's attitudes and behaviors towards important issues.

Increasing knowledge through educational video media is one of the effective strategies in increasing public understanding, especially for mothers of toddlers<sup>(40)</sup>. One aspect that makes educational videos effective is their ability to simplify complex information into a format that is easier to understand. For example, in a video explaining balanced nutrition for toddlers, information that may be difficult to

understand in text form can be presented through graphs, illustrations and clear explanations. Thus, mothers of toddlers can more quickly understand the importance of providing nutritious food to their children. This not only makes learning more fun, but also encourages mothers to think critically about their practices. Interaction in educational videos can increase audience motivation and engagement<sup>(41)</sup>. Video content composed by health experts has a greater impact on improving people's knowledge and understanding<sup>(42)</sup>.

The importance of educational videos also lies in their ability to reach a wider audience. Many of them may live in remote areas or have limited access to quality health information sources. With online platforms, educational videos can be accessed anytime and anywhere, giving mothers the opportunity to learn without geographical limitations. For example, in rural areas of Indonesia, many mothers do not have access to adequate health services. However, with educational videos available on the internet, they can gain the necessary knowledge to take better care of their children. Educational videos have been proven effective in improving the health knowledge of people in remote areas<sup>(43)</sup>.

Educational videos not only serve as a tool to deliver information, but also as a means to build community. Through social media platforms, moms can share experiences, ask questions and discuss topics relevant to child health. This creates a collaborative learning environment, where moms can support each other and share knowledge. For example, a Facebook group dedicated to mothers of toddlers can be a place where they recommend useful educational videos to each other. Social interactions on social media can boost moms' confidence in caring for their children<sup>(44)</sup>.

Research shows that the use of visual media in learning can increase information retention by up to 65% compared to traditional methods<sup>(45)</sup>. The research conducted shows that the use of educational videos as a counseling tool can have a significant positive impact on mothers' knowledge of food and beverage sanitation management. Through the pretest and posttest method, it was proven that there was a significant difference between the value of knowledge before and after counseling. The results of the analysis using the Mann-Whitney test showed that the average value of knowledge of the group that received the educational video intervention increased by 40%. This significant increase shows that educational videos not only attract attention, but are also effective in conveying information that is important for children's health.

The importance of food and beverage sanitation in stunting prevention cannot be underestimated, considering that stunting is a serious health problem that can affect children's growth and development. The latest data from the World Health Organization (WHO) shows that around 22% of children in Indonesia are stunted, potentially hampering their physical and cognitive development<sup>(46)</sup>. Educational videos act as a medium that not only conveys information, but also changes people's behavior and habits. With an engaging visual approach, mothers of toddlers can more easily understand important concepts in sanitation management, and apply them in their daily lives.

Further analysis showed that this increased knowledge was closely related to mothers' ability to implement good sanitation practices at home. When mothers of

children under five have a better understanding of the importance of sanitation, they tend to be more disciplined in implementing

such practices, such as washing hands before preparing food, storing food properly, and ensuring the cleanliness of the surrounding environment. The importance of sanitation knowledge among mothers of children under five cannot be underestimated. There is a significant relationship between maternal knowledge of sanitation and good sanitation behavior at home<sup>(47)</sup>. This knowledge includes an understanding of how to prevent disease, the importance of hygiene, and practices that can prevent the spread of harmful pathogens. In addition, proper food storage is also an important aspect of good sanitation practices. Mothers who understand the importance of storing food at the right temperature and in clean containers are more likely to prevent food contamination. It was found that mothers who have good knowledge of food storage tend to keep food in the refrigerator at the appropriate temperature, thereby reducing the risk of food poisoning<sup>(48)</sup>. Such practices, such as washing hands before preparing food, storing food properly, and ensuring This suggests that in-depth knowledge of sanitation practices can contribute directly to family health. Thus, awareness of the importance of environmental hygiene not only contributes to individual health, but also to the overall health of the community.

This suggests that educational video education is not only successful in increasing knowledge, but also has the potential to change behaviors that can contribute to stunting prevention. Thus, it can be concluded that the use of educational videos as an extension method has great potential in increasing community knowledge and awareness about the importance of food and beverage sanitation. However, to achieve optimal results, a more holistic approach is needed, including collaboration between various parties, such as the government, health institutions and communities. Through this collaboration, it is hoped that extension programs can be more effective and sustainable, so as to significantly reduce the stunting rate in Indonesia.

The increase in knowledge of the control group through counseling using leaflets is an interesting phenomenon to observe. The results showed that there was a significant increase in the mean knowledge score between the pretest and posttest. The pretest average score was recorded at 57.55, while the posttest score increased to 84.64, which shows a striking difference. This shows that the counseling method using leaflets was successful in improving participants' understanding. In addition, the percentage difference resulting from the use of this educational media reached 21.45, which is equivalent to 37%.

This improvement is not just a number, but also reflects the effectiveness of the approach used in the extension program. Previous research has also indicated that the use of visual media such as leaflets can increase the appeal and understanding of information among audiences. The use of print media in health counseling can increase people's understanding of the importance of maintaining good health<sup>(50)</sup>. It is important to note that the success of this outreach is inseparable from where the outreach is conducted. In many cases, audiences who are exposed to information through leaflets tend to remember and understand the material more easily, especially if the information is presented in an interesting and digestible way. This is in line with

learning theory, which states that individuals are more likely to remember information if it is presented in a creative and interactive way.

Analyzing these results, it can be concluded that the use of leaflets as an extension tool was very effective in improving the knowledge of the control group. Thus, it is important for extension workers to consider using similar media in future education and extension programs. Efforts to improve community knowledge should continue to be made with innovative and relevant approaches.

In conclusion, the results of this study suggest that leaflet extension can be an effective strategy in improving community knowledge. Therefore, it is important to continue exploring and developing extension methods that can strengthen people's understanding and awareness of important issues. By doing so, it is hoped to create a more educated society that is aware of the importance of accurate and relevant information.

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## CONCLUSIONS

Based on the results of the research conducted, it can be concluded that counseling using educational videos on food and beverage sanitation gets a percentage increase in knowledge by 40%. While counseling using leaflets about food and beverage sanitation gets a percentage increase in knowledge of 37%. So that counseling using educational videos can increase knowledge higher than counseling with *leaflets*.

Educational videos can be used to increase knowledge about food and beverage sanitation management for *stunting* prevention efforts in the care of toddlers. Educational videos can also be used as one of the new extension tools and methods that can be applied to the community in increasing knowledge of food and beverage sanitation management for *stunting* prevention efforts.

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## НАВЧАЛЬНЕ ВІДЕО ПРО САНІТАРІЮ ХАРЧОВИХ ПРОДУКТІВ ТА НАПОЇВ ЯК ЗАСІБ ПРИВЕНЦІЇ ЗАТРИМКИ РОСТУ У ДІТЕЙ

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***Анотація.** Затримка росту – це стан у дітей, який характеризується довжиною або зростом для віку та статі, меншим за стандартне відхилення, що базується на кривій росту. Однією з основних невирішених проблем харчування, що впливають на дітей ясельного віку в Індонезії, є затримка росту. Затримці росту сприяє ряд факторів, включаючи погану гігієну та чистоту їжі та напоїв. Використання навчальних відео для консультування – один зі способів спробувати подолати це. Метою цього дослідження було визначити різницю в освітньому відеоконсультуванні у підвищенні знань про управління санітарією харчових продуктів та напоїв як зусилля для запобігання затримці росту в Бібіс-Хамлет, Тімбулхарджо, Севон, Бантул. Дизайн цього дослідження – кількісний. Загальна кількість респондентів становила 55 осіб. Метод вибірки – випадковий. Цей тип дослідження є квазіекспериментом з використанням дизайну дослідження: одна група: попереднє тестування, посттестування з дизайном контрольної групи. Тому консультування з навчальними відео може підвищити рівень знань більше, ніж консультування з навчальними відео-буклетами, які будуть використовуватися як контрольна група, так і експериментальна група. Згідно з аналізом, проведеним за допомогою тесту Манна-Вітні, значення експериментальної групи суттєво відрізнялися від показників контрольної групи. Згідно з результатами дослідження, консультування з використанням навчальних відео з питань санітарії харчових продуктів та напоїв призводить до 40% підвищення знань. Використання буклетів з санітарії харчових продуктів та напоїв для консультування призводить до 37% підвищення знань. Висновок цього дослідження полягає в тому, що навчальні відео мають більший вплив на покращення управління санітарією харчових продуктів та напоїв у матерів малюків.*

***Ключові слова:** затримка росту, гігієна, навчальне відео, буклет*

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