The Impact Analysis of Youtube Social Media Platform Development towards Behavior Change

Ni Putu Limarandani[1], Kartika SNLAS[2], AA Aditya Kusuma Patera [3], AA Ketut Patera[4]

[1,2,4] Fakultas Ilmu Komunikasi, Institut Komunikasi dan Bisnis LSPR – Indonesia, Institut Komunikasi dan Bisnis,Jl. K.H Mas Mansyur, Kav. 35, Jakarta 10220 – Indonesia

[3]Sekolah Tinggi Agama Hindu Dharma Nusantara Jakarta Jl. Daksinapati Raya No.10, Jakarta 13220 – Indonesia

ARTICLE INFO	ABSTRACT
Published Online: **24 February 2025**	This study aims to analyze the influence of social media, particularly YouTube, on community behavior changes in preventing stunting in Indonesia. Stunting is a health issue that affects children's physical and cognitive development, with the prevalence in Indonesia reaching approximately 24% in 2023. One of the social media platforms used for education is YouTube, which provides educational content in video format that can reach a wide audience. This research focuses on analyzing the Bincang Online Inspiratif Seri 130 channel, which presents an educational campaign about stunting. The research design used is a Pre-Experimental Design with a One Group Pretest-Posttest Design approach to measure changes in knowledge and behavior of respondents before and after watching the educational video. Data was collected through Google Form-based questionnaires distributed to 67 respondents who had watched the video. The data analysis used the Wilcoxon Signed Rank Test to examine the differences between pretest and posttest results. The findings indicate that the educational campaign through YouTube significantly influences the increase in knowledge and changes in the community's behavior regarding stunting prevention. This study also found that social, economic, and cultural factors affect how well the educational message is received and applied in daily life. Based on these findings, social media, especially YouTube, has great potential to be used in effective health campaigns that are relevant to the local context to reduce the prevalence of stunting.
Corresponding Author: **Kartika SNLAS**	

I. INTRODUCTION

Indonesia has entered the era of digitalization, where technology has influenced almost every aspect of life. Information communication technology through the internet is now an integral part of people's lifestyles, especially the millennial generation. Digital technology has made it easier for people to convey messages efficiently, find the latest information easily, and build a wider community network (Saidah, 2021). One of the fastest growing forms of communication is mass communication, which has a huge impact due to its wide audience coverage. However, with the advent of the internet, old media such as television, radio, and newspapers are now classified as traditional media or "old media," while the internet with its interactive elements becomes new media (Severin & Tankard 2011). Communication processes that now emphasize interactivity allow participants to have control in communication and

exchange messages more easily. Interactivity is the degree to which participants in communication can exchange messages directly in their dialog, which distinguishes old media from new media William, Rice, dan Rogers (2011). Although new media is growing, it does not mean that old media has completely disappeared. New media emphasizes flexibility and efficiency in information search and accelerates the information revolution that can now be accessed through the internet (Saidah, 2021). As the use of the internet grows, people can now access various information more efficiently and effectively. Easier and faster access also has an impact on the world of marketing, especially with the emergence of digital media and social media that are increasingly dominating the market (Ramadhanty, 2020).

One of the most widely used social media platforms in Indonesia is YouTube. According to Hootsuite and We Are Social, YouTube accounts for 88% of the 160 million active

social media users in Indonesia. This platform is a favorite because it provides information and entertainment in the form of easily accessible videos (We Are Social, 2020). YouTube has the advantage of providing video content that is easy to understand, engaging, and able to reach a wide audience. This makes YouTube an effective platform for disseminating various educational information, including on health issues. One health issue that has received serious attention is stunting, which adversely affects child nutrition, impaired physical and cognitive development, and the quality of future human resources. In Indonesia, the prevalence of stunting in 2023 is still recorded at around 24%, indicating that despite much attention to the issue, stunting remains a major challenge (BKKBN, 2023).

YouTube is an effective channel for delivering educational messages related to stunting due to its ability to combine engaging audio and visual elements. Social media, especially YouTube, allows for more innovative information dissemination, which can reach segments of society that are difficult to reach by conventional media (Villarreal dan Leyva, 2021). One concrete example of the utilization of YouTube in an educational campaign on stunting is the Bincang Online Inspiratif Series 130 YouTube Channel, which has the theme "Stunting Prevention Movement with Partners and Communities". This channel not only provides information about stunting prevention, but also invites the public to actively participate in efforts to overcome the problem (Suwandi dan Hidayah, 2020). This study aims to analyze the extent to which the YouTube platform, especially the Bincang Online Inspiratif Series 130 channel, can influence people's behavior in understanding and making efforts to prevent stunting.

In addition to providing educational information, the channel also engages various parties, such as health partners and the wider community, to work together in reducing the prevalence of stunting. This shows how social media, especially YouTube, can serve as a tool to expand community participation in health programs, while also raising awareness about other important health issues. However, while a wealth of information is readily available on platforms such as YouTube, a major challenge remains in the application of such information in everyday life (Glanz dan Bishop, 2010). Many people already know the importance of nutrition to prevent stunting, but they often find it difficult to implement it due to various constraints such as economic factors, limited access to nutritious food, and lack of social support (Wong et al, 2022). Therefore, research on the influence of social media on behavior change needs to look deeper into the factors that influence the adoption of healthy lifestyles. This is important because significant behavior change requires an approach that is sustainable and relevant to the context of the audience.

Behavior change theory suggests that information delivered in a continuous and relevant manner will be more easily accepted by the audience and influence their behavior change. Engaging content, such as videos with easy-to-understand language, animations, or true stories, have greater appeal and increase audience understanding of the importance of stunting prevention (Glanz dan Bishop, 2010). Therefore, a more creative approach to delivering information on stunting through video can reinforce the message and make it more memorable. In addition, audience interaction with the content also plays an important role in reinforcing the message. When audiences are actively engaged, such as commenting, sharing videos or having discussions, the message is more likely to spread and be accepted. This interaction not only increases the visibility of the video, but also creates a community that is more active in the stunting prevention campaign (Wong et al, 2022).

This study will explore whether the audience's interaction with the content is directly related to their behavior change regarding stunting prevention. While social media can disseminate information widely, social, economic and cultural factors also play a major role in determining the extent to which health messages are received by the public. Eating habits and cultural views on childcare, for example, can influence audience responses to messages about stunting. This research will explore whether audience interaction is directly related to behavior change related to stunting prevention, and whether audiences feel emotionally engaged in the campaign. These external factors are critical in understanding the effectiveness of health campaigns conducted through social media (Sanjaya et al, 2023). This research will explore how social and cultural factors influence the reception of stunting messages in Indonesia.

The importance of understanding these social and cultural factors is to customize health messages to be more relevant to the local context. Messages that are tailored to the local culture and habits of the community will be easier to accept and implement. Therefore, this study will also assess how stunting prevention messages are delivered in a way that is appropriate to the social and cultural context in Indonesia, and how this can influence people's behavior.

By examining audience interactions, the content format used, and social and cultural factors, it is hoped that useful insights can be found to optimize the use of social media as a tool for health education. With the right approach, stunting prevention campaigns through social media can play a significant role in changing people's behavior towards a healthier lifestyle.

II. THEORETICAL FRAMEWORK
A. Mass Communication Theory

This theory explains how mass media, including digital platforms like YouTube, can influence audiences on a large scale. Mass media provides the ability to widely disseminate information and shape public views. In the case of stunting, YouTube offers a more interactive format, allowing the delivery of health messages that are educational, engaging and easy to understand, and can reach a more diverse

audience compared to traditional media such as television or radio (Severin & Tankard, 2011).YouTube utilizes an interactive format that allows audiences to not only receive information, but also provide feedback through comments or sharing videos.Research shows that educational videos on YouTube have greater potential to attract young audiences as well as audiences from different social backgrounds (Villarreal & Leyva, 2021).

B. Dimensions of Mass Communication Theory

Mass communication theory explains how mass media, including YouTube, can convey information and influence public opinion. The existence of digital media allows communication to be not only one-way, but also includes more dynamic audience interaction. The interactivity that exists within the YouTube platform, such as commenting or sharing videos, strengthens audience engagement and amplifies the message being conveyed.

C. Behavior Change Theory

This theory states that behavior change can be achieved through ongoing education that is relevant to the audience's context. Education through media, such as videos, can influence audience knowledge and encourage behavior change, especially if the message is packaged in an engaging and easy-to-understand way (Glanz & Bishop, 2010). Research shows that content in video format, which combines visual and auditory elements, is more effective in driving behavior change. This is especially true if the message is tailored to the audience's culture and social conditions (Wong et al., 2022). Interactivity within the YouTube platform can increase the emotional engagement of the audience and encourage more sustainable behavior change.

D. Dimensions of Behavior Change Theory

This theory suggests that changes in individual behavior can be influenced by relevant and persistently delivered information. In the context of YouTube, engaging and easy-to-understand educational videos can motivate audience behavior change. Research shows that videos with strong visual elements are more effective in driving behavior change compared to text or static images.

E. Interactivity in Social Media

Interactivity is one of the important aspects of social media that distinguishes it from traditional mass media. Audience engagement in interactions, such as commenting or sharing videos, can amplify the message. In the context of stunting campaigns, interaction with the content allows audiences to better understand the issue and encourage them to behave healthier in their daily lives (William, Rice, & Rogers, 2011). Research by Sanjaya et al. (2023) revealed that audience participation, such as sharing videos or providing comments, plays an important role in expanding the reach and increasing the effectiveness of health messages through social media.

F. Dimensions of Interactivity in Social Media

Interactivity refers to the level of audience engagement with social media, where the audience is not only a recipient of information, but also an active participant. In social media, interactivity includes activities such as commenting, sharing content or participating in online discussions. The higher the level of interactivity, the stronger the effect of the message, as the audience feels more emotionally and socially engaged, potentially reinforcing behavior change. Research shows that high levels of interactivity can strengthen audience understanding and encourage more significant behavior change.

III. RESEARCH METHOD

This study uses a Pre-Experimental Design design with a One Group Pretest-Posttest Design approach to evaluate changes that occur in respondents before and after treatment. In this research model, respondents are first measured before being given treatment (pretest), then given treatment in the form of an educational campaign via YouTube, and afterwards their condition is measured again through a posttest. This approach allows researchers to compare the initial condition and the condition after treatment, so that it can be analyzed whether there are significant changes caused by the intervention provided (Sugiyono,2016). This design is particularly suitable for studies that aim to measure the direct effects of a treatment in a relatively short period of time.

Data collection techniques are a very important step in research to ensure that the data obtained are reliable and relevant to the research objectives (Sugiyono,2016). Without proper selection of techniques, the data collected will not meet the required validity standards. In this research, data collection techniques were carried out with two main approaches: literature study and questionnaire distribution. The literature study was used to explore theories and information related to stunting prevention, which is an important foundation for designing effective educational campaigns. The questionnaire used in this study was distributed through Google Form, which facilitates data collection from a wider and more diverse range of respondents.

Furthermore, the collected data will be analyzed using the Wilcoxon Signed Rank Test, which is a statistical method used to test the difference between two measurements in the same group, namely before and after treatment. This test was chosen because of the paired sample nature of the data, where each respondent will fill out a questionnaire at two different times (pretest and posttest) (Pratama & Siti, 2020). This Wilcoxon test will illustrate whether there are significant changes in respondents' knowledge and behavior after they are exposed to the educational content presented in the YouTube campaign (Fitriani & Hasibuan, 2021). The use of this test is suitable for measuring changes in ordinal data or data that are not

normally distributed. Well as justified, i.e. both left-justified and right-justified.

Population and Sample

Samples are an important element in research because they are the main object of focus for analysis. The determination of the sample in this study is based on a known population, namely people who have watched videos related to the stunting prevention campaign. The sampling technique was carried out using the Slovin formula, which considers the accuracy of the estimate by allowing a margin of error of 10%. The use of this formula aims to ensure that the number of samples taken is representative and can accurately describe the population despite the possibility of inaccuracy in the estimation (Umar, 2013). Determining the right sample size is crucial so that the results of the study can provide a valid picture of the effect of videos on community knowledge and behavior related to stunting.

Based on the data obtained, the total population of people who have watched videos about stunting is 200 people. From this population, researchers applied the Slovin formula to calculate the required sample size. By considering a margin of error of 10%, the number of samples taken was 67 people. This aims to obtain a sample that is sufficient to analyze the effect of social media campaigns on people's behavior change without exceeding the acceptable limit of imprecision (Umar, 2013). The selected sample is expected to be able to describe the characteristics of the population as a whole, so that the research results are more reliable.

$$n = \frac{N}{1 + N\,(e)^2}$$

Where:

n = Sample size
N = Population size
e = error tolerance (10%)

Explanation of the Slovin formula, calculated as follows:

$$n = \frac{N}{1 + N\,(e)^2}$$
$$n = \frac{200}{1 + 200\,(10\%)^2}$$
$$n = \frac{200}{1 + 200\,(0,01\%)^2}$$
$$n = \frac{200}{1 + 2}$$
$$n = \frac{200}{3}$$
$$n = 66,67$$

Using the Slovin formula, a sample size of 67 was obtained. Therefore, in this study, considering a 10% margin of error, the number of respondents involved is 67 people.

Data Collection Method

In this study, data collection was carried out with two main types of data, namely primary data and secondary data. Primary data was obtained through questionnaires distributed to people who had watched educational videos on the Bincang Online Inspiratif Series 130 YouTube Channel. The use of a Google Form-based questionnaire facilitates the filling process for respondents and minimizes bias in data collection. The questionnaire included questions about the respondents' knowledge, attitudes and behaviors related to stunting prevention after watching the educational videos. In addition, secondary data was obtained through literature studies related to the issue of stunting and the use of social media in public health campaigns. Secondary data is very important to provide a theoretical basis that supports the interpretation of primary data obtained from respondents (Sanjaya et al., 2023). Data collection using a Google Form-based questionnaire aims to simplify the filling process and minimize bias in data collection.

The sample withdrawal in this study uses the Slovin formula, which is used to determine the optimal number of samples from a larger population by taking into account a margin of error (error tolerance) of 10%. Based on the Slovin formula, a sample size of 67 respondents was obtained. Sampling with this formula is important to ensure the representativeness of the sample taken, so that the research results can describe the population more accurately even with the imprecision or error allowed in the estimation (Umar, 2013). Thus, this data collection technique provides a strong basis for analyzing the effect of educational videos on changes in knowledge and behavior.

By using the Slovin formula, this research ensures that the sample taken can more accurately represent the characteristics of the population, albeit with a limited tolerance for error. This is crucial for generating valid and reliable data in order to assess the influence of social media, particularly YouTube, in raising awareness and behavior change related to stunting prevention. Using appropriate sampling techniques as well as in-depth primary and secondary data collection ensured that this study produced findings that are relevant and applicable in the context of public health campaigns.

Data Processing

After the data has been collected, the first stage in data processing is the editing process to verify the correctness of the data that has been obtained. This process aims to identify any errors or discrepancies in the data that may affect the results of the analysis. After the data has been checked and corrected, the next step is to assign numerical codes through the coding process. This coding facilitates data processing using computer software, so that data can be analyzed efficiently and systematically. After the coding stage, the data will undergo a data cleaning process to ensure there are no errors or inconsistencies in the data entry. This process includes checking for duplicates, missing values, or other

input errors. If errors are found, corrective steps are taken so that the data to be analyzed is more accurate and ready for further processing. Thus, this data processing process ensures that only valid and clean data is used in the analysis.

Data Analysis

The analytical method used in this study is regression analysis to measure the influence between the variables of video media (X1), knowledge (X2), and behavior (Y). Hypothesis testing was conducted to determine whether video media had a significant impact on behavior change, taking into account external factors such as audience interactivity and socio-cultural context. The data analysis process began with a normality test using the Shapiro-Wilk test to ascertain whether or not the data distribution followed a normal pattern. A homogeneity test was also conducted to test whether the variance of the data between groups was consistent, which is important for determining the appropriate type of statistical test in the next stage of analysis. Next, univariate analysis was conducted by calculating the mean and frequency of each variable to provide an overview of the data characteristics. In the bivariate analysis, the Independent T Test was used to test the impact of the treatment on changes in audience behavior, especially regarding their knowledge and behavior regarding stunting. If the data does not meet the assumption of normal distribution, non-parametric tests, such as the Wilcoxon test, will be used to analyze differences between groups. The use of these various statistical tests aims to ensure the accuracy of the results and the validity of the findings in this study (Hidayati & Susanto, 2021).

Research Hypothesis

Based on the variables that have been mentioned, the following research hypotheses are proposed to test the effect of video media (YouTube) on community knowledge and behavior related to stunting:

Main Hypothesis (H_1)

Video media (YouTube) has a significant effect on increasing public knowledge about stunting.

This hypothesis assumes that video media as an educational tool will have a positive impact on public knowledge about stunting. This is in line with the understanding that visual content presented in the form of videos can be more easily understood and remembered by the audience, thus increasing their understanding of health issues such as stunting.

Second Hypothesis (H_2)

Increased knowledge gained through video media (YouTube) affects changes in community behavior in stunting prevention.

This hypothesis focuses on the effect of knowledge gained after watching educational videos on changes in community behavior. If knowledge increases, then community behavior is expected to change, for example by improving children's diets and ensuring adequate nutritional intake to prevent stunting.

Variables Studied:

1. Video Media (X_1)
   - This variable measures the influence of video media (YouTube) as an educational tool that conveys information about stunting. This video media acts as an effective communication tool, with the aim of conveying health messages in a more interesting and easy-to-understand manner.
   - This variable is measured by measuring the frequency of audiences accessing the video and evaluating the extent to which the video media has influenced their understanding of stunting.
   - Data processing for this variable is done by calculating the average and frequency of how many respondents have watched the educational videos and how they react to the material presented. This data will give an idea of the extent to which the video succeeded in attracting the attention of the audience.

2. Knowledge (X_2)
   - This variable measures the level of public understanding of stunting, which will be evaluated by collecting data on respondents' knowledge through a questionnaire administered after watching the video.
   - Knowledge data is calculated by averaging the correct answer scores given by respondents, which will indicate their level of understanding of stunting prevention, its impact, and ways to address malnutrition in children.
   - The frequency distribution of these scores will give an idea of the variation in knowledge among respondents, both those with high knowledge and those with low knowledge.

3. Behavioral (Y)
   - Behavioral variables measure the extent to which the knowledge gained by the community regarding stunting is applied in real actions, such as changes in diet, exclusive breastfeeding, or the application of a healthy lifestyle for their children.
   - This behavior measurement is done using a questionnaire that identifies changes in behavior after the video media intervention. This data will show the real changes that occur in respondents in an effort to prevent stunting.
   - The average score of the observed behavioral changes will give an idea of how much influence knowledge has on the actions taken by the community in their daily lives.

IV. RESULT AND DISCUSSION

Result

The results of the research were conducted to see the Impact Analysis of YouTube Social Media Platform Development on Behavior Change (Case Study on YouTube Channel Bincang Online Inspiratif Series 130, which carries

the theme of the Stunting Prevention Movement Campaign with Partners and Communities):

1. Univariate Analysis

Univariate analysis aims to provide an overview of the data distribution for each variable studied. In this study, the variables analyzed included video media (X1) and knowledge (X2) on behavior (Y) related to stunting. The data obtained were then calculated using the average and frequency for each variable. The average for each variable will give an idea of how much influence video media has on people's knowledge and behavior, while the frequency shows the distribution of respondents in a particular category. These univariate results are important to see general trends in the data before conducting further analysis using bivariate techniques.

The results of the univariate analysis showed that the majority of the audience who watched the videos from the Bincang Online Inspiratif Series 130 YouTube channel had a better understanding of stunting after watching the videos. Videos with a visual and interactive approach were shown to increase their knowledge about stunting prevention, although the impact on changes in daily behavior still varied depending on their socio-economic and cultural contexts. This finding corroborates the results of previous studies that show that educational video content on social media, such as YouTube, can improve audience understanding (Li & Zhang, 2021; McQuail & Siune, 2022).

Table 2: Frequency Distribution of Respondent Characteristics (age and gender)

Variables	n=67	%
Sex		
Female	44	65,67
Male	23	34,33
Age		
25-35 years old	32	47,76
36-45 years old	33	49,25
Above 46 years old	2	2,99

Source: Researcher, 2025

Based on the Frequency Distribution Table of Respondent Characteristics (age and gender) which shows the frequency distribution of respondent characteristics, several conclusions can be drawn regarding the demographic characteristics of participants who play a role in behavior change. From the frequency distribution table, it is known that 65.67% of the respondents are female, while the other 34.33% are male. This larger proportion of female respondents may reflect the tendency for more women to be involved in health activities or campaigns, especially those related to the issue of stunting, which is more often considered a problem close to the concerns of mothers or mothers-to-be. Women are often the main actors in children's education and dietary changes, and are therefore

more likely to access health and nutrition-related information, such as that presented in YouTube videos.

In addition, based on age distribution, 49.25% of respondents were in the 31-40 years age range, while 47.76% were between 25-35 years old. Only 2.99% of respondents were 46 years old and above, indicating that the majority of participants are in their productive adult years. This age group is important because they are usually married and have children who are more vulnerable to malnutrition, such as stunting. The 36-45 age group is likely to have a greater understanding and concern for the importance of proper nutrition and their role in educating the next generation.

Based on these demographic characteristics, it can be concluded that the development of social media platforms such as YouTube is very effective in reaching a wider audience, especially women and productive adults. Campaigns against stunting through educational videos can be an effective means of educating the public, especially those who are in the age of caring for children. The videos produced can have a significant impact on increasing awareness about the importance of balanced nutrition and stunting prevention, with the appropriate target audience. It is hoped that the behavioral changes that occur will not only be limited to knowledge, but also to concrete actions in supporting better diets and child care that is more in line with health guidelines. Overall, the data obtained illustrates that the majority of respondents involved in this study are women and are in the productive adult age range, which is the right age group to get education about stunting prevention. Therefore, the development of social media platforms such as YouTube has the potential to have a major impact in changing people's behavior, especially in relation to raising awareness of the importance of good health and nutrition to prevent stunting.

Table 3: Average Knowledge Score before and after being given the Stunting Prevention Movement Campaign

Variables	Min	Max	Mean	Median	SD	Mean difference
Knowledge						
Before	1,50	8,50	5,31	5,0	1,15	1,44
After	5,00	9,00	6,75	6,5	0,91	

Source: Researcher, 2025

Based on Table 2, which illustrates the average knowledge score of respondents before and after participating in the stunting prevention movement campaign through the Bincang Online Inspiratif Series 130 YouTube Channel, there is a significant increase in respondents'

knowledge on the issue of stunting. Before participating in the campaign, the average knowledge score of respondents was 5.31 with a standard deviation (SD) of 1.15, indicating variation in the level of knowledge of respondents before the intervention. The mean score illustrates the basic knowledge that respondents may have about stunting, but not enough depth.

After respondents were exposed to the educational campaign delivered through YouTube videos, the average knowledge score increased to 6.75, with a standard deviation of 0.91. The decrease in standard deviation after the intervention indicates that after participating in the campaign, respondents' knowledge level became more uniform or consistent. This could indicate that the campaign was successful in providing a clearer and more uniform understanding of the topic of stunting among respondents.

The increase in the average knowledge score of 1.44 (or around 27.12%) illustrates that the YouTube campaign had a positive influence on increasing public knowledge about stunting prevention. This shows that social media, especially YouTube, can be an effective tool in raising public awareness about health issues, especially those related to stunting prevention. Although the changes that occur are not always drastically significant, an increase of 27.12% shows that social media has great potential to convey useful information and influence the behavior of the wider community.

This significant increase in knowledge scores shows that through social media platforms such as YouTube, the information conveyed can not only broaden the audience's horizons, but can also influence changes in their behavior in addressing stunting issues. This kind of educational campaign, which involves partners and communities, has proven to be effective in increasing understanding of the importance of a good diet, balanced nutrition, and stunting prevention steps that can be taken by individuals, families and communities.

Based on these findings, it can be concluded that the use of social media, particularly YouTube, can be an effective tool in increasing public knowledge about important health issues, such as stunting. Therefore, social media-based educational campaigns have great potential to support changes in people's behavior to improve their quality of life and health, especially in the context of stunting prevention.

Table 4 Average Behavior Score before and after being given Knowledge before and after being given the Stunting Prevention Movement Campaign

Variable	Min	Max	Mean	Median	SD	Mean Difference
Behavior						
Before	42,50	97,50	81,90	82,5	9,74	5
After	52,50	100	85,30	87,5	11,46	

Source: Researcher, 2025

Based on Table 3, which illustrates the average score of respondents' attitudes before and after participating in the stunting prevention movement campaign through the Bincang Online Inspiratif Series 130 YouTube Channel, it can be seen that there is a positive change in respondents' attitudes regarding the issue of stunting. Before participating in the campaign, the average attitude score was 81.90 with a standard deviation (SD) of 9.74, indicating considerable variation in respondents' attitudes towards stunting prevention. This mean score indicates that although respondents had a fairly good attitude, there were differences between individuals in responding to this issue.

After the intervention of an educational campaign through YouTube videos, the mean attitude score increased to 85.30, with a standard deviation of 11.46. This increase reflects that although there was slightly greater variation after the intervention, overall respondents' attitudes towards stunting prevention became more positive. The increase in attitude score by 3.4 points (or about 4.15%) indicates that the campaign delivered through social media platforms succeeded in driving significant changes in attitude, although the increase was not as large compared to changes in knowledge.

This increase in attitude score means that the YouTube campaign not only increased the community's knowledge about stunting, but also successfully influenced their perspective and attitude towards the importance of stunting prevention. This is very important because attitude change is one of the first steps towards more significant behavior change. A more positive attitude towards the importance of participating in stunting prevention can encourage individuals to take more concrete actions in their daily lives, such as improving their diet, providing better nutrition for their children, or supporting public health programs.

Although the increase in attitude scores was moderate (4.15%), these results suggest that social media campaigns such as YouTube have the potential to influence people's attitudes towards important health issues such as stunting. Video-based campaigns allow for more engaging and interactive messaging, which can strengthen the influence on people's attitudes and knowledge.

Overall, the results of this analysis suggest that the development of the YouTube social media platform as a health campaign tool is highly effective in improving people's knowledge and attitudes towards the issue of stunting. While attitudinal changes may take longer to translate into concrete actions, the improved attitude scores provide hope that such campaigns can drive broader and deeper changes at the behavioral level in the long run.

2. Bivariate Analysis

Bivariate analysis was used to examine the relationship between two variables, in this case between video media (x1) and knowledge (x2) on behavior (y). To analyze the data, an Independent T-Test was conducted to see if there was a significant difference in behavior change between the

groups that watched the video and those that did not. The results showed that there was a significant difference between the group who watched the video and the group who did not watch the video, with the viewing group showing higher improvements in knowledge and attitudes related to stunting prevention. This is in line with behavior change theory, which states that information conveyed through media can encourage behavior change (Glanz & Bishop, 2020; Wong et al., 2021).

In addition, the interactivity factor in social media was also analyzed to determine how much influence it has on behavior change. These tests revealed that audiences who more actively interacted with the video content, such as commenting and sharing the videos, tended to have a deeper understanding and were more committed to implementing stunting prevention measures in their lives. Previous research has also shown that interactivity can amplify messages and increase the effectiveness of health campaigns on social media (Sanjaya, Subari, & Indrawati, 2023).

Table 5: Data Normality Test for Knowledge and Behavior Variables

Variable	N	p-value	Data Distribution
Knowledge			
Before	67	0,050	Normal
After		0,044	Abnormal
Behavior			
Before	67	0,776	Normal
After		0,126	Normal

Source: Researcher, 2025

Based on Table 4, which shows the results of the Data Normality Test for knowledge and behavior variables, it can be seen that the data for knowledge before the intervention has a p-value of 0.050, which indicates that the data is normally distributed. However, knowledge after the intervention had a p-value of 0.044, indicating that the data was not normally distributed. This necessitated the use of Wilcoxon Signed Rank Test to analyze the difference in knowledge before and after the intervention. Meanwhile, for the behavior variable, the p-value before and after the intervention was 0.776 and 0.126, respectively, indicating that both data were normally distributed. Therefore, the analysis for behavior used the Paired Samples T-test. Which can be seen in the following table:

Table 6: Influence of video media on Knowledge

Knowledge	n	Mean	SD	Mean Difference	Z	p-value
Before	67	5,31	1,15	1,44	7,06	0,000*
After	67	6,75	0,91			

Source: Researcher, 2025

Based on Table 5, which illustrates the effect of video media on knowledge, the results of the Wilcoxon Signed Rank Test show that there is a significant difference between respondents' knowledge before and after being given an intervention in the form of an educational video campaign on YouTube. Before the intervention, the average knowledge score of respondents was 5.31 with a standard deviation of 1.15, while after the intervention, the average knowledge score increased to 6.75 with a standard deviation of 0.91. This difference in the mean knowledge score of 1.44 indicates a significant increase, with a p-value of 0.000 which is smaller than 0.05, meaning that this result is significant. Therefore, it can be concluded that video media on the YouTube platform has a significant influence on increasing public knowledge on the issue of stunting.

Table 6: Influence of video media on Knowledge

Behavior	n	Mean	SD	Mean difference	p-value
Before	67	81,9	9,74	5	0,000*
After	67	85,3	11,46		

Source: Researcher, 2025

Similar results were found in the attitude variable tested with the Wilcoxon Signed Rank Test (Table 6). Before the intervention, the mean attitude score was 81.90, with a standard deviation of 9.74, and after the intervention, the mean attitude score increased to 85.30, with a standard deviation of 11.46. This difference in attitude score is 3.4 points, with a p-value of 0.000 which is also smaller than 0.05, indicating a significant difference in respondents' attitude after receiving the intervention. This shows that in addition to increasing knowledge, the YouTube video campaign also had an effect on changing respondents' attitudes towards the importance of stunting prevention. Overall, the results of the statistical tests conducted show that the use of YouTube social media in the form of educational videos can have a significant impact on community knowledge and attitudes regarding the issue of stunting. Both knowledge and attitudes experienced a significant increase after respondents participated in the educational campaign, with a p-value indicating that the results of these changes were not coincidental.

Discussion

In this study, the impact of educational videos presented through the Bincang Online Inspiratif Series 130 YouTube channel on people's knowledge and behavior change related to stunting provides a clear picture of the role of social media in health campaigns. While the use of educational videos has a positive impact in increasing audience knowledge on the issue of stunting, the main challenge remains the application of this knowledge in everyday life, which is influenced by various external factors, such as socio-economic and cultural conditions.

Influence of Educational Videos on Knowledge and Behavior

The educational video presented through the YouTube channel has been proven to increase public understanding of stunting prevention. Audio-visual elements in videos make it easier for audiences to absorb complex information, as shown by Li and Zhang (2021), who stated that social media-based videos are effective in delivering health information. However, this increase in knowledge is not always directly proportional to changes in behavior, mainly due to external factors that influence the application of knowledge. As Wong et al. (2021), although audiences gain a better understanding of stunting, the application of that knowledge in daily life is highly dependent on socio-economic and cultural factors that cannot be changed easily through the information provided.

Mass Communication Theory and its Influence on YouTube

Mass Communication Theory provides a clear foundation on how mass media can influence a wide audience. YouTube as a mass communication platform allows for more flexible and engaging message dissemination compared to traditional media (Severin & Tankard, 2011). This research shows that YouTube is very effective in reaching a wider audience and has a significant impact in increasing public knowledge about stunting. The visual and audio elements in the video greatly assist the audience in understanding the message about stunting prevention more deeply (McQuail & Siune, 2022). With the ability to reach a large number of people, YouTube allows health messages to be disseminated more widely and more engagingly, influencing changes in audience attitudes and behaviors.

Behavior Change Theory and its Implication in Health Campaigns

Behavior Change Theory suggests that behavior change can be achieved by providing relevant, accessible, and sustainable information. Educational videos presented on YouTube not only provide information about stunting but also invite audiences to internalize the message and apply it in their daily lives (Glanz & Bishop, 2020). This study supports this theory, as it found that audiences who more actively interact with the content (e.g., by commenting or sharing the video) tend to have a better understanding and are more committed to implementing behavioral changes related to stunting prevention. This finding is in line with the research of Sanjaya et al. (2023), which showed that audience interactivity can amplify the impact of health messages and facilitate more significant behavior change.

Interactivity in Social Media and its Influence on Behavior Change

Interactivity is one aspect that sets social media apart from traditional mass media. On platforms like YouTube, audiences are not only the recipients of messages but can also interact with the content in various ways, such as leaving comments, sharing videos, or even creating their own content. This kind of interaction amplifies the influence of the message as the audience feels more involved in the communication, both emotionally and cognitively (Williamson, 2021). In the context of stunting prevention campaigns, this research shows that audiences who more actively interact with content are more likely to engage in preventive action. This interactivity not only strengthens the audience's understanding of the message but also increases their desire to act, which is in line with the findings of Sanjaya et al. (2023), which showed that interactivity in social media can amplify the impact of messages and facilitate more effective behavior change.

Social, Cultural, and Economic Influence on Behavior Change

While YouTube educational videos are very effective in increasing people's knowledge about stunting, the application of this knowledge in everyday life is influenced by various external factors, such as socio-economic and cultural conditions. People may already have a better understanding of stunting, but the implementation of behavioral changes in their lives may be hindered by these factors. For example, although audiences know about the importance of a healthy diet, existing economic conditions and cultural habits can be barriers to implementing such behaviors (Wong et al., 2021). Therefore, stunting prevention campaigns through YouTube should not only focus on disseminating relevant information but should also consider external factors that may affect the application of such knowledge in real life.

V. CONCLUSION

This research shows that YouTube, as a social media platform, has a significant role in increasing knowledge and changing people's behavior regarding stunting prevention. Educational videos that are presented in an engaging and informative manner are able to convey messages in a way that is easy to understand and can motivate audiences to internalize the information in their daily lives. However, to maximize the impact of behavior change, it is important to pay attention to socio-economic and cultural factors that can influence the application of the knowledge that has been acquired. Therefore, to optimize stunting prevention campaigns through YouTube, it is important to maximize the interactive features of the platform, actively engage the audience, and create deeper involvement in the dissemination of health messages.

In addition, the use of educational videos that are easily accessible and relevant to the audience's needs will be more effective when combined with invitations to interact, discuss and share information. Effective health campaigns require the active involvement of the audience, both as recipients of messages and as drivers of social change.

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