

Original Article

The Effect of Messages Delivered Through Video Media on Knowledge, Attitudes, and Practices of Exclusive Breastfeeding Among Mothers in the Working Area of the Bantargebang Community Health Center in 2022

Sherly Ayu Tionika^{1*}, Zarfiel Tafal², Yennie Ariestanti³

^{1,3}Faculty of Health Administration, Sukabumi College of Health Sciences, Sukabumi, Indonesia

²Faculty of Health Sciences, Respati Indonesia University, Jakarta, Indonesia.

Correspondence Author: sherlyayutionika@dosen.stikesmi.ac.id

Abstract:

Exclusive breastfeeding can reduce infant mortality due to infection by up to 88%. Mothers' knowledge and attitudes are related to exclusive breastfeeding practices, and videos can be an effective medium for improving mothers' knowledge, attitudes, and practices. This study aims to determine the effect of video-based messages on mothers' knowledge, attitudes, and practices related to exclusive breastfeeding, as well as the dominant factors that influence these practices. The study design was a quasi-experimental pretest-posttest design. The research subjects were mothers with infants aged 0-5 months in the working area of the Bantargebang Community Health Center. Data collection was conducted through questionnaires (pretest and posttest), interviews (preliminary study and assessment), observation of practices, and video screening intervention. Data analysis used paired sample t-tests and Wilcoxon tests. There was a significant increase in knowledge ($p=0.000$, paired sample t-test), attitude ($p=0.001$, Wilcoxon test), and practice ($p=0.000$, Wilcoxon test) in the intervention group. Attitude was identified as the dominant factor influencing exclusive breastfeeding practices. Video messages through video media effectively enhance mothers' knowledge, attitudes, and exclusive breastfeeding practices. Attitude emerged as the most influential factor on practice after controlling for knowledge.

Keywords: *Attitude; Exclusive Breastfeeding; Knowledge; Mothers of Infants; Practice*

Introduction

Breast milk is the best source of nutrition for babies because its nutritional content is naturally designed to meet the growth and development needs of infants.

Submitted	: 15 Januari 2026
Revised	: 20 Januari 2026
Acceptance	: 8 February 2026
Publish Online	: 9 February 2026

Exclusive breastfeeding is feeding a baby only breast milk from birth to six months of age without any other food or drink. During the period of exclusive breastfeeding, all of a baby's fluid and nutritional needs are expected to be fully met by breast milk ([Duale et al., 2022](#)). Breastfeeding is the most optimal form of nutrition for babies from the beginning of life. This practice plays an important role in supporting the quality of human resources because it supports maximum growth and development of babies. In addition, breast milk contains immunological components that serve to increase the baby's immune system, thereby helping to prevent various infectious diseases that often occur in the first year of a baby's life ([Aziza, 2019](#)).

Breastfeeding has been proven to be effective in reducing infant mortality due to infectious diseases by up to 88%. In addition, breastfeeding also plays a role in reducing the risk of stunting, obesity, and various chronic diseases in later life. Data shows that around 31.36% of children fall ill because they do not receive exclusive breastfeeding. Low breastfeeding rates can pose a serious threat to children's growth and development, which ultimately impacts the quality of human resources. This is because around 80% of brain development occurs from pregnancy to the age of three, a period known as the golden age of child development ([Domenici & Vierucci, 2022](#)).

Globally, based on the WHO and UNICEF report in the 2020 Global Breastfeeding Scorecard, around 48% of infants under six months of age worldwide receive exclusive breastfeeding, indicating that the practice of exclusive breastfeeding globally is still not optimal ([Organization, 2020](#)). At the national level, Indonesia shows a relatively better trend, with exclusive breastfeeding coverage reaching around 68% in 2020 and 66.4% in 2021, although these figures are still below the national target of 80%. In addition, data from the March 2021 National Social Survey (Susenas) shows that the proportion of infants receiving breast milk in Indonesia reached 74.73%, which illustrates an increase in breastfeeding practices ([Kementerian Kesehatan RI, 2021](#)).

In 2021, the coverage of infants receiving exclusive breastfeeding in Indonesia increased, bringing the coverage of infants receiving exclusive breastfeeding in Indonesia in 2021 to 71.58% ([Kementerian Kesehatan RI, 2021](#)). The coverage of infants receiving exclusive breastfeeding in West Java in 2019 was 63.53% ([Profil Kesehatan Indonesia, 2019](#)). In 2020, the coverage of infants receiving exclusive breastfeeding decreased from the previous year to 58.5%. ([Profil Kesehatan Indonesia, 2020](#)) Meanwhile, in 2021, the coverage of infants receiving exclusive breastfeeding in West Java increased, as did the percentage of infants receiving exclusive breastfeeding in Indonesia. As a result, the coverage of infants receiving exclusive breastfeeding in West Java reached 76.46% ([Badan Pusat Statistik, 2021](#)).

In 2020, the coverage of exclusive breastfeeding in the Bantargebang Community Health Center working area was 15.2% ([Laporan Tahunan Puskesmas Bantargebang, 2020](#)). In 2021, the coverage of exclusive breastfeeding in the Bantargebang Community Health Center Working Area decreased to 2.71% ([Dinas Kesehatan Kota Bekasi, 2021](#)). Although in 2021 the percentage of infants receiving exclusive breastfeeding in Indonesia and West Java increased, this was not the case in the Bantargebang Community Health Center working area, which experienced a decline from the previous year.

Health promotion is an effort to influence others, whether individuals, groups, or communities, so that they do what is expected by health educators or health promoters. The expected outcome of health promotion activities is the formation of healthy behaviors, or behaviors that maintain and improve health, which are conducive to the targets of health promotion ([Ghahramani et al., 2022](#)).

In practice, health promotion cannot be separated from the media. This is because the media makes health messages interesting and easy to understand, so that the target audience can easily receive the messages conveyed. Health promotion media is a means of presenting messages or information through print, electronic, and outdoor media, in an effort to increase the target audience's knowledge and hopefully bring about positive

behavioral changes in the field of health. Health promotion media are divided into three types, namely: Print media, such as booklets, leaflets, columns, and posters. Electronic media, such as TV, radio, films, videos, cassettes, CDs, and VCDs ([Brewer et al., 2020](#)).

Exclusive breastfeeding is very important and has a significant impact on children's health. One factor that influences exclusive breastfeeding is mothers' knowledge. Video is considered an effective medium for increasing knowledge. With increased knowledge, although not always, it is hoped that it can influence mothers' attitudes and practices regarding exclusive breastfeeding. The purpose of this study was to determine the effect of messages conveyed through video media on the knowledge, attitudes, and practices of exclusive breastfeeding among mothers in the Bantargebang Community Health Center working area in 2022.

Methods

Study Design

This research was a quasi-experimental study with a pre-test/post-test with a control group design.

Setting and Sample

This research was conducted from April to July 2022. The population targeted in this study were mothers with babies aged 0-5 months in the Bantargebang Bekasi Community Health Center working area, with a sample of 40 respondents divided into two groups and selected using purposive sampling. The inclusion criteria for research respondents were mothers who had babies aged 0-5 months, were present during the questionnaire completion process, and were breastfeeding or providing breast milk.

Measurements and Data Collection Technique

Data were collected through questionnaires before the intervention was given as a pre-test and 14 days after the intervention as a post-test to determine the development of the research variables. The knowledge variable questionnaire consists of 15 questions with Guttman scale answer options aimed at measuring the extent of respondents' understanding of the definition, benefits, content, and contraindications of exclusive breastfeeding. The attitude variable questionnaire consists of 18 questions with 4-point Likert scale answer options (1-4) based on the material provided on exclusive breastfeeding. The practice variable questionnaire consists of 11 questions with Guttman scale answer options. All instruments were declared valid and reliable using Pearson correlation and Cronbach's alpha, making them suitable for use in this study.

Intervention

The intervention provided in this study was the delivery of health messages through video media about exclusive breastfeeding to mothers with babies aged 0-5 months in the working area of the Bantargebang Community Health Center. The video contained educational material covering the definition of exclusive breastfeeding, the benefits of breastfeeding for infants and mothers, the correct way to breastfeed, and the effects of giving additional food or drink before the age of six months. The intervention was carried out in the experimental group by playing the video as an audio-visual health promotion medium, so that the message could be received through both sight and hearing. Before and after the intervention, respondents' knowledge, attitudes, and practices were measured using questionnaires, while the control group did not receive the video, so that the differences in the changes that occurred could illustrate the effect of the video media intervention on the variables studied.

Data Analysis Technique

Data analysis was performed using IBM SPSS software version 29. Univariate analysis used frequency distribution, mean values, and standard deviation. Normality testing was performed using Shapiro Wilk. Hypothesis testing was performed using paired sample t-tests and Wilcoxon tests.

Ethical Consideration

This study has obtained ethical approval from the Ethics Committee of the Respati Indonesia University to ensure that all research procedures comply with ethical principles in research. Written consent from patients or authorized parties was also obtained prior to data collection, ensuring that patient participation was voluntary and in accordance with ethical standards applicable in clinical research.

Results

Table 1. Characteristics Respondents

Characteristics Respondents	Intervention (n = 20)		Control (n = 20)	
	f	%	f	%
Infant Age				
≤2,5 months	13	65	7	35
2,6-5 months	7	35	13	65
Mothers's Age (years)				
20-25	8	40	6	30
26-30	7	35	4	20
31-35	5	25	5	25
36-40	0	0	5	25
Mother's Education				
Junior High School	7	35	3	15
High School/Vocational School	11	55	15	75
Diploma	0	0	1	5
Bachelor's Degree	2	10	1	5
Mother's Occupation				
Employed	3	15	4	20
Unemployed	17	85	16	80

Based on Table 1, the results show that in the intervention group, the majority of infants were aged <2.5 months (65%), while the mothers were predominantly aged 20-25 years (40%), had a high school education (55%), and were unemployed (85%). In the control group, most infants were aged 2.6-5 months, with the mothers primarily aged 20-25 years (30%), having a high school education (75%), and being unemployed (80%).

Table 2. Univariate Analysis and Normality Test

Variables	Intervention				P-value	Control				p-value
	Mean	STD	Min	Max		Mean	STD	Min	Max	
Knowledge										
<i>Pretest</i>	6,75	3,892	1	13	0,109	7,05	3,980	1	14	0,170
<i>Posttest</i>	11,05	2,373	6	15	0,619	7,20	3,982	1	14	0,109
Attitude										
<i>Pretest</i>	8,20	4,862	2	17	0,031	8,45	5,104	3	16	0,001
<i>Posttest</i>	12,35	3,313	6	17	0,413	8,55	5,052	3	16	0,001
Breastfeeding Practices										
<i>Pretest</i>	5,25	2,845	2	10	0,003	5,45	3,052	2	10	0,002

Posttest	7,90	2,532	4	11	0,004	5,55	3,203	2	11	0,002
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Table 2 shows that the pretest and posttest results of the intervention group increased the average knowledge score from 6.75 (3.892) to 11.05 (2.373). In addition, the pretest and posttest results of the intervention group increased the average attitude score from 8.20 (4.862) to 12.35 (3.313). The pretest and posttest results of the intervention group also increased the average breastfeeding practice score from 5.25 (2.845) to 7.90 (2.532). Table 2 also shows that the pretest and posttest results of the control group increased the average knowledge score from 7.05 (3.980) to 7.20 (3.982). In addition, the pretest and posttest results of the control group increased the average attitude score from 8.45 (5.104) to 8.55 (5.052). The pretest and posttest results of the control group also increased the average breastfeeding practice score from 5.45 (3.052) to 5.55 (3.203).

Furthermore, the normality test for the knowledge variable yielded a p-value > 0.05, indicating a normal distribution in both the intervention and control groups. In contrast, the p-values for attitude and breastfeeding practices were < 0.05, suggesting that these variables were not normally distributed across both groups

Table 3. Hypothesis Testing: Pretest and Posttest Differences

Variable	Mean Differences	p-value
Knowledge		
Intervention: Pretest-posttest	-4.300	0,000 ^b
Control: Pretest-posttest	-150	0,083 ^b
Attitude		
Intervention: Pretest-posttest	-4.150	0,001 ^a
Control: Pretest-posttest	-100	0,317 ^a
Breastfeeding Practices		
Intervention: Pretest-posttest	-2.650	0,000 ^a
Control: Pretest-posttest	-100	0,157 ^a

*Notes = a: *wilcoxon test*; b: *paired sample t-test*

Table 3 show that the intervention group experienced significant changes in all variables, as evidenced by p-values < 0.05 for knowledge (p = 0.000), attitude (p = 0.001), and breastfeeding practices (p = 0.000). In contrast, no significant differences were found between the pretest and posttest scores in the control group for all of these variables (p > 0.05), with significance values of 0.083 for knowledge, 0.317 for attitude, and 0.157 for breastfeeding practices.

This study aligns with several previous studies on the influence of video media on knowledge, including research conducted by [\(Batjo, 2021\)](#) on "Video Media About Breastfeeding Techniques Influences Pregnant Women's Knowledge" which states that the study shows that there is an influence of health promotion with video media on pregnant women's knowledge of breastfeeding techniques. Similarly, research conducted by [Suryani & Nadia \(2022\)](#) on "The Role of Animated Video Media in Improving Pregnant Women's Nutritional Knowledge" which states that there is an influence of animated video media on pregnant women's nutritional knowledge during pregnancy. Video media is effective in health education because it combines moving visuals and sound harmoniously.

By engaging both the senses of sight and hearing, videos can strengthen respondents' memory and understanding. This can strengthen their memory and understanding of the material or information they have received. With the knowledge or understanding received by respondents, it is hoped that it will also influence their

attitudes for the better or improve (Nurak, 2021). Lack of knowledge about the benefits and objectives of exclusive breastfeeding can be a cause of failure in providing exclusive breastfeeding to infants (Idawati et al., 2021).

Most of a person's knowledge is acquired through the senses of hearing (ears) and sight (eyes) (Notoatmodjo, 2018). Increasing a person's knowledge can be done by providing information. In this study, the results showed that video media is an effective medium in the educational process or the process of conveying information to the audience. Therefore, increased knowledge will have an impact on attitudes and behavior or practices. Therefore, before improving good attitudes and practices, it is hoped that good knowledge can be improved first.

This research is in line with the research conducted by Safitri et al., (2021) on *"The Effect of Educational Videos on Mothers' Knowledge and Attitudes in Exclusive Breastfeeding at Bulu Lor Community Health Center 2021"* which found that there was a significant influence between breastfeeding education through video media on mothers' knowledge and attitudes about exclusive breastfeeding with $p = 0.001$, and attitudes with $p = 0.006$. Similarly, research conducted by Maulida (2021) on *"the effect of using viesif media (exclusive breastfeeding education videos) in counseling on the knowledge and attitudes of pregnant women in the Umbulharjo Community Health Center work area"* stated that videos had a greater influence on increasing knowledge and attitudes compared to leaflets. An independent sample t-test was conducted, obtained the knowledge variable (p -value = 0.000) and the attitude variable (p -value = 0.000).

The improvement in attitudes that occurred in the respondents of this study was due to the knowledge they had received or acquired. Someone who has sufficient knowledge of an object will provide a more rational response and will think about the extent of the benefits or losses they might obtain from that object (Herawati et al., 2019). Therefore, good knowledge will shape good attitudes, in this study, video media is effective for increasing knowledge and improving attitudes. In determining this whole attitude, knowledge, thoughts, beliefs, and emotions play a very important role. Therefore, video media is not only effective in increasing audience knowledge, but also very effective in improving good attitudes. From good knowledge, good attitudes can also be formed. Therefore, attitudes and knowledge are closely related.

This is in line with research Rizka et al., (2020) on *"the effect of health education using audio-visual media on the knowledge and attitudes of breastfeeding mothers about exclusive breastfeeding"* that there are differences in knowledge, attitudes, and actions of respondents between before and after the intervention and have a p -value = 0.000. Similarly, research Afifa (2019) on *"The Effect of Exposure to Video Media on Iodine Deficiency Disorders (GAKI) on Nutrition Competition of Elementary School Students in the Replete Gaki Region"* the results of the study stated that competition consists of 3 aspects, namely knowledge, attitudes, and skills or practices. From this description, increased knowledge can influence attitudes and practices. So that attitudes and practices also improve.

Knowledge, attitude, and practice form the main stages of behavior change in the KAP model, where a person must first understand the meaning and benefits of a health behavior for themselves before adopting it. Therefore, indicators of health practices or actions are aligned with health knowledge and attitudes (Kustiani & Misa, 2018). Similarly, this study found that respondents' knowledge increased after being given an intervention through video media about exclusive breastfeeding, and then their attitudes about exclusive breastfeeding also increased accordingly. With increased knowledge and attitudes, the practice of exclusive breastfeeding also increased. Therefore, knowledge greatly influences attitudes and practices. Healthy behavior can be realized if healthy knowledge and attitudes are already possessed, because good knowledge will shape good attitudes and practices.

This study is in line with research conducted by Nurleli et al., (2018) that knowledge and attitudes have a significant relationship with the practice of exclusive

breastfeeding ($p < 0.05$). In line with this study [Parapat et al., \(2022\)](#) on "the relationship between maternal knowledge and exclusive breastfeeding" that there are results that maternal age is not related to exclusive breastfeeding, namely with a p -value = 0.200 and there are results that maternal education is not related to exclusive breastfeeding, namely with a p -value = 0.5058. It is possible that even highly educated mothers do not necessarily have good knowledge about exclusive breastfeeding. The study is similar to research conducted by [Farida et al., \(2022\)](#) that there is no relationship between maternal occupation and exclusive breastfeeding, namely with a p -value = 0.241. The level of education, occupation and age do not guarantee a mother's success in the practice of exclusive breastfeeding. However, with good knowledge and attitudes will influence the practice of exclusive breastfeeding.

Based on the results of the logistic regression test, it is known that the dominant factor influencing the practice of exclusive breastfeeding is the attitude factor, the attitude factor has a significant value of $0.000 < 0.005$. So there is an influence of attitude towards exclusive breastfeeding. So respondents who have a good attitude will tend to practice exclusive breastfeeding well. From these results it can be concluded that knowledge and attitude, both have a significant relationship with the practice of exclusive breastfeeding. Attitude is greater than knowledge, therefore the most dominant factor in the practice of exclusive breastfeeding is the attitude factor. Having good knowledge about exclusive breastfeeding does not necessarily have a good attitude about exclusive breastfeeding. So good knowledge about exclusive breastfeeding cannot directly influence the practice of exclusive breastfeeding because there must be an attitude that is improved first, but if the attitude about exclusive breastfeeding is good enough, it is likely that a mother will practice exclusive breastfeeding

Conclusion

Video messages delivered through video media effectively increase mothers' knowledge, attitudes, and practices regarding exclusive breastfeeding.

Suggestion

Future researchers are advised to ensure that respondents are paying close attention to the video when conducting interventions using video media. For example, they should ensure that respondents' attention is not divided by other things and that they are solely focused on watching the video.

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