International Journal of Health, Economics, and Social Sciences (IJHESS)
Vol. 8, No. 2, April 2026, pp. 895~904
DOI: 10.56338/ijhess.v8i2.10483
Website: https://jurnal.unismuhpalu.ac.id/index.php/IJHESS

The Effect of Learning Video Education on Knowledge of Breast Milk Dam Prevention in Tri Smester III Pregnant Women in the Working Area of the Dungaliyo Health Center

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Article Info

Article history:

Received 12 Dec, 2025
Revised 21 Jan, 2026
Accepted 14 Feb, 2026

Keywords:

Breastfeeding Dam, Education Learning Videos, Third Trimester Mothers, Knowledge, Prevention

ABSTRACT

Breast milk dams generally occur on the 3rd to 5th day after childbirth along with an increase in breast milk production. This condition can be caused by improper breastfeeding techniques, inadequate breastfeeding frequency, improper attachment, and lack of knowledge of breastfeeding by mothers. The purpose of this study is to determine the effect of learning video education on knowledge of breastfeeding dam prevention in third trimester mothers in the working area of the Dungaliyo Health Center. The research method used is quasi-experimental with a pretest–posttest without control group approach. The population in this study is Mrs. Tri Smester III in the working area of the Dungaliyo Health Center with sampling techniques using non-probability sampling techniques with the Total sampling method obtained a sample of 40 respondents. Data analysis was carried out using the Wilcoxon Signed Rank Test. The results of the study showed that before video education, mothers' knowledge was dominated by the sufficient category as many as 26 respondents and the lack category as many as 14 respondents. After the intervention, the majority of mothers had good knowledge as many as 24 respondents, followed by enough knowledge of 13 respondents, and only 3 respondents were still less knowledgeable. The results of the analysis showed an increase in the level of knowledge of respondents after being given video learning education, characterized by a change in the average value of knowledge from 2.35 before the intervention to 1.48 after the intervention, with an average difference of 0.87. The results of the statistical test showed a value of $p = 0.000$ ($p < 0.05$), The conclusion of the study was that there was a significant influence of video learning education on the knowledge of breastfeeding dam prevention in third trimester mothers. The results of this research are expected to be a source of information that is easy to understand and access at any time through learning video media.

INTRODUCTION

Breast milk dams generally appear on day 3 to day 5 after childbirth, when milk production begins to increase. The causative factors include improper breastfeeding techniques, infrequent breastfeeding, improper attachment, and lack of information about breast care. If not handled properly, breast milk dams can develop into mastitis, breast abscesses, and risk stopping exclusive breastfeeding. (World Health Organization, 2021)

The problem of breastfeeding dams is one of the main factors of failure in exclusive breastfeeding. Barriers to exclusive breastfeeding include limited information, breast pain, incorrect breastfeeding techniques, and lack of support from health workers and the family environment. Many mothers stop breastfeeding early because of pain due to breast milk dams or because of the perception that their milk production is lacking. In Indonesia, there are still many mothers who do not understand the early signs of breastfeeding dams and how to prevent them. This is exacerbated by the fact that education about breast care is generally only given after

the mother gives birth and symptoms of the dam appear, not preventively during pregnancy. (World Health Organization, 2021)

According to the results of Basic Health Research, lactation problems such as *breast engorgement* varied between studies but were reported to be quite high in the first weeks postpartum; some studies found that about one-third of breast problems in breastfeeding mothers were breast dams. Nationally, (Riskesdas 2018). This shows that exclusive breastfeeding coverage in Indonesia is still low, at around 37.3%, which indicates that there are obstacles in breastfeeding practices and lactation support at the community level. This shows that the issue of breastfeeding dams is still an important challenge in the success of the national exclusive breastfeeding program (Solihah et al. 2021).

According to data from the Gorontalo Provincial Health Office, the coverage of exclusive breastfeeding in this province has only reached 67.8%, lower than the national target of 80%. The low coverage of exclusive breastfeeding can be an indicator of obstacles such as breastfeeding dams that have not been handled optimally (Gorontalo Provincial Health Office, 2023).

Breast milk is the main and best source of nutrition for babies, especially in the first six months of life. Breast milk not only meets nutritional needs, but also provides immunological protection that supports the optimal growth and development of babies. However, in practice, there are still many mothers who experience breastfeeding problems, one of which is the breast milk dam. Breast milk dams occur when the breasts swell due to the accumulation of milk that is not expelled properly. This condition can cause pain, discomfort, and even inhibit exclusive breastfeeding. (Ministry of Health of the Republic of Indonesia, 2022)

The impact of the non-handling of the ASI dam is very wide. In addition to increasing the risk of mastitis and breast abscesses, this condition can lead to reduced breastfeeding frequency, psychological disturbances due to pain and stress, and decreased the success of exclusive breastfeeding. In fact, exclusive breastfeeding has great benefits for the health of the mother and baby. Breast milk not only contains perfect nutrients for the baby's growth and immunity, but also provides health benefits for mothers, such as helping uterine involution, preventing anemia, and lowering the risk of breast and ovarian cancer. Therefore, the Indonesian government through Law Number 36 of 2009 concerning Health and Government Regulation Number 33 of 2012 affirms the right of every baby to exclusive breastfeeding as well as the obligation of health facilities and workplaces in supporting breastfeeding mothers. (Kurniasari et al., 2021).

Seeing the low knowledge of pregnant women about the prevention of breastfeeding dams and the importance of education from the pregnancy period, an innovative, effective, and easy-to-understand learning approach is needed. One of the solutions that can be applied is through video-based learning education. Video media is able to present information visually and interactively, making it more attention-grabbing and easy to remember than conventional lecture methods.

The problem of the Mother's Milk (ASI) dam still occurs a lot, including in the working area of the Dungaliyo Health Center. The low coverage of exclusive breast milk (ASI) and the lack of prenatal education are one of the triggers. Based on a preliminary study of 10 postpartum mothers, only 30% understood how to overcome the dam of breast milk (ASI). Education that is visual and flexible, such as educational videos, is considered to be able to answer the limitations of access and conventional educational time.

Previous research has shown the effectiveness of video media in improving the knowledge and skills of breastfeeding mothers. Therefore, this study is important to test the effectiveness of video education in increasing knowledge about the prevention of breast milk dams in postpartum mothers. Metin & Baltacı, (2024)

Based on the results of initial data collection in the work area of the Dungaliyo Health Center, data was obtained that there were as many as 40 pregnant women in the third trimester who were potential targets in this study. The results of observations show that most pregnant women do not have adequate knowledge about the prevention of breast milk (ASI) dams that can occur after childbirth. From the results of interviews with 10 pregnant women in the third trimester, it is known that only 3 people know that breast milk dams can be prevented through regular breast care and correct breastfeeding positions. As many as 2 people only have a general understanding that babies need to be breastfed frequently so that breast milk is not clogged, while the other 5 people do not know at all how to prevent or the early signs of breast milk dams.

Based on the results of interviews with health workers at the Dungaliyo Health Center, it shows that education about breast care and breast milk dam prevention has not been given specifically to pregnant women, especially during the third trimester. The material is generally only delivered after the mother gives birth or when the problem of the breast milk dam has occurred. This condition shows that preventive education efforts during pregnancy are still not optimal, even though the third trimester period is the right time to prepare mothers physically and knowingly to face the breastfeeding process. The lack of information and education since pregnancy has the potential to cause mothers to be less prepared to face breastfeeding problems at the beginning of the postpartum period. Therefore, educational efforts are needed through interesting and easy-to-understand media, such as learning videos, so that pregnant women in the third trimester have good knowledge on how to prevent breast milk dams from an early age.

RESEARCH METHODOLOGY

The research design used in this study is Quasy Experimental using a paired t-test. By involving intervention groups. Aims to find out the influence that arises as a result of treatment. The special feature of this experiment is in the form of interventional treatment. This research has been carried out in the Work Area of the Dungaliyo Health Center. In December 2025. The sampling technique used in this study uses *a non-probability sampling* technique with *the Total sampling* method. The number of samples in this study amounted to 40 people.

Data Analysis Techniques

Univariate Analysis

Univariate analysis is an analysis that consists of only one variable analyzed, there is no longer a difference between dependent and independent variables. Univariate analysis utilizes descriptive statistical methods to explain the characteristics of a single variable.

Bivariate Analysis

This analysis aims to find out the difference before and after the Effect of Learning Video Education on Knowledge of Breastfeeding Dam Prevention in Mrs. Tri smester III in the work area of the Dungaliyo Health Center. The statistical test used is the *Paired Samples T-test* with a 95% confidence rate. To see the meaning of statistical calculations, a meaning limit of 0.05 is used so that if the value of P is ≤0.05, then statistically there is a meaningful influence, if P is >0.05, then the results of the calculation have no meaningful influence.

Statistical Hypotheses

H0 : It is not significant if it has a p≥0.05 value, therefore Ha is rejected and H0 is accepted, which indicates that there is no effect of the Effect of Learning Video Education on the knowledge of breast milk dam prevention in Mrs. Tri smester III in the work area of the Dungaliyo Health Center

Ha: significant if it has a p<0.05 value, therefore Ha is rejected and H0 is accepted, which indicates the Effect of Learning Video Education on Knowledge of Breast Milk Dam Prevention in Mrs. Tri smester III in the Working Area of the Dungaliyo Health Center

RESULTS

Characteristics of Respondents

Table 1 Characteristics of respondents

Characteristics	Frequency	Introduce yourself
Age:	n	%
17-25 Years	12	30%
26-35 Years	28	70%
Total	40	100%
Final Education:		
SD	9	22,5%
Junior High School	5	12,5%
High School	14	35%
D3/S1	12	30%
Total	40	100%
Occupation:		
IRT	18	45%
Teacher	6	15%
Merchant	9	22,5%
Private Employees	7	17,5%
Total	40	100%

Data Source 2025

Based on table 1 of the frequency distribution based on the age of 40 respondents, the most respondents were found in the age range of 26 to 35 years as many as 28 respondents (70%) and the least in the age range of 17 to 25 years as many as 12 respondents (30%). Based on the distribution table of education frequency, the most respondents obtained the most high school education as many as 14 respondents (35%) and the least elementary education as many as 9 respondents (22.5%). Based on the distribution table of work frequency, the most respondents were not working or as housewives as many as 18 respondents (45%) and the least worked as teachers as many as 6 respondents (15%).

Univariate Analysis

Univariate analysis based on the level of knowledge of the mother before (*pre-test*) was given Video Education Learning on the Prevention of Breastfeeding Dams in the working area of the Dungaliyo Health Center.

Table 2 Analysis of the frequency distribution of maternal knowledge level before (pre-test) education is given

Knowledge level	Frequency (n)	Present(%)
Good	0	0%
Enough	26	65%
Less	14	35%
Total	40	100%

Data Source 2025

Based on table 2, it shows that the level of knowledge of mothers before being given Education Video Learning on the Prevention of Breastfeeding Dams from 40 respondents was obtained as many as 26 respondents (65%), had sufficient knowledge, then as many as 14 respondents (35%) had less knowledge and no mother had a good level of knowledge.

Univariate analysis based on the level of knowledge of the mother after (*post-test*) was given Video Education on the Prevention of Breastfeeding Dams in the working area of the Dungaliyo Health Center.

Table 3 Analysis of the frequency distribution of the mother's level of knowledge after (*post-test*) education

Knowledge level	Frequency (n)	Present(%)
Good	24	60%
Enough	13	32,5%
Less	3	7,5%
Total	40	100%

Data Source 2025

Based on table 3, it shows that the level of knowledge of mothers after being given Education Video Learning on the Prevention of Breastfeeding Dams from 40 respondents, 24 respondents (60%) had good knowledge, then as many as 13 respondents (35%) had sufficient knowledge and as many as 3 respondents (7.5%) had a lack level of knowledge.

Bivariate Analysis

Analysis of the Influence of Learning Video Education on Knowledge of Breastfeeding Dam Prevention in Mrs. Tri Smester III in the working area of the Dungaliyo Health Center.

Table 4 Analysis of the Influence of Learning Video Education on Knowledge of Breast Milk Dam Prevention in Mrs. Tri Smester III

Variable	N	Red	Mean Difference	Std. Deviation	Sum Of ranks	*P-Value*
Knowledge Before Education	40	2,35	0,87	,483	630,00	**0,000**
Knowledge After Education	40	1,48	0,87	,640		

Pirmer Data Source : 2025

Based on the results of the analysis in table 4, it shows that the average level of knowledge of respondents before being given video education on the prevention of breastfeeding dams in third trimester mothers in the working area of the Dungaliyo Health Center is 2.35 with a standard deviation of 0.483. Meanwhile, after being given learning video education, the average level of knowledge of the respondents increased to 1.48 with a standard deviation of 0.640. The *mean difference* value of 0.87 indicates a significant increase in knowledge between before and after the educational intervention of learning videos.

Based on the results of the Wilcoxon Signed Rank Test statistics, a Sum of Ranks value of 630.00 and a significance value (p-value) of 0.000 ($p < 0.05$) were obtained. These results show that there is a significant difference between the level of knowledge of mothers in the third trimester before and after being given learning video education about the prevention of breastfeeding dams in the working area of the Dungaliyo Health Center. Thus, it can be concluded that education through video learning media has a significant effect on increasing the knowledge of pregnant women in the third trimester in preventing breast milk dams.

DISCUSSION

The level of knowledge of the mother before being given the Education Video Learning on the Prevention of Breast Milk Dams in the working area of the Dungaliyo Health Center.

Based on the results of the study from 40 respondents, it was found that as many as 26 respondents (65%), had sufficient knowledge, These results show that most mothers already have a basic understanding of the importance of breastfeeding and the impact of breast milk dams, but have not been able to translate this knowledge into effective prevention practices. Based on the results of the analysis, respondents in this category were generally able to answer correctly several questions in the tofu dimension, such as "the definition of breast milk dams", "the importance of exclusive breastfeeding during the first 6 months", and "hard and painful breasts are symptoms of breast milk". This basic understanding reflects that most mothers have conceptual knowledge of lactation issues.

However, many respondents answered inappropriately on the dimensions of understanding and application, especially on items that require practical skills, such as the ability to explain, how to perform breast massage to prevent breast milk dams, the ability to explain the correct breastfeeding position, and the ability to formulate breast care steps during breastfeeding. These results show that although respondents have a foundation of cognitive knowledge, they have not been able to translate that knowledge into skills that are applicable in real life.

According to Notoatmodjo, (2020) who states that knowledge can only become practical behavior if the information is understood deeply and through learning that allows observation, practice, and feedback Learning video media enables this process because it provides visual and auditory simulations simultaneously, which strengthens the formation of motor skills and conceptual understanding.

The results of this study are in line with a study by Sari & Andayani (2021) entitled "*Video Education on Breastfeeding Technique and Its Impact on Maternal Knowledge and Breast Engorgement*" found that the provision of educational videos on breastfeeding techniques had a significant effect on increasing knowledge and decreasing breastfeeding dam cases in postpartum mothers ($p < 0.01$). These findings are reinforced by Metin & Baltacı (2024) in their study "*The Effects of Video-Assisted Breastfeeding Education Given to Primiparous Pregnant Women on Breastfeeding Self-Efficacy*" which concluded that visual-based educational videos are able to significantly increase pregnant women's confidence and readiness in breastfeeding practices.

The researcher assumes that mothers with sufficient knowledge categories have a good cognitive foundation and motivation to learn, but need visual stimulus to form an applicative understanding. Thus, video-based learning education is the most appropriate medium because it allows multisensory learning that integrates audio, visual, and kinesthetic components.

Based on the results of the research from 40 respondents, 14 respondents (35%) were found to have a lack of knowledge. These results show that some third trimester mothers in the work area of the Dungaliyo Health Center have not fully understood the basic concept of preventing breastfeeding dams and the actions needed to avoid them. Based on the results of the analysis, many respondents in this category answered inappropriately on the tofu dimension, such as statements about "the importance of exclusive breastfeeding during the first six months" and "the influence of breastfeeding position on the smooth flow of breastfeeding".

In addition, in the dimension of understanding, most respondents also do not know that stress and fatigue can affect the smooth production of breast milk, and do not understand the risk of breast milk dams when the breast is left full without being emptied. In the application dimension, the most common answer errors are found in statements related to direct actions, such as the ability to perform breast massage to prevent dams, the act of warm compressing when breast milk begins to inhibit, and the ability to formulate breast care measures during breastfeeding.

These results illustrate that respondents in this category do not have adequate conceptual understanding or practical skills. This condition shows that there is a gap between basic knowledge and the application of breast milk dam prevention practices in daily life.

According to Notoadmodjo, (2020) Knowledge can be defined as understanding, which means that knowledge is obtained and obtained when individuals study or observe an object and then apply it in daily life. In this context, respondents with low knowledge have not received effective learning experience related to the prevention of breast milk dams, because the education provided so far is still verbal and not accompanied by visual demonstrations.

Anwar & Safitri (2022) added that during pregnancy, the physiological and psychological changes of the mother can reduce the absorption of information if the educational media used is not interesting and difficult to understand. The results of this study are in line with research by Dewi & Rahman (2022) entitled "The Effect of Lactation Education on Increasing Postpartum Mothers' Knowledge in Preventing Breast Milk Dams" which found that the level of knowledge of postpartum mothers increased significantly after being given visual media-based lactation education ($p = 0.001$).

Another study by Abou-Dakn, Richardt, Schaefer-Graf, & Wöckel (2020) in "*Treatment of Inflammatory Breast Diseases During Lactation: Mastitis, Abscesses, and Engorgement*" also states that the

mother's lack of knowledge about breast care and the correct way to empty breast milk is the main cause of breast milk dams.

Researchers assume that mothers with low levels of knowledge are still in the early cognitive stage and need an *experiential learning educational approach* to be able to understand the relationship between theory and action. The use of learning video media is considered the most appropriate solution, because it visually displays preventive measures, ranging from breast massage, breastfeeding positions, to how to empty breast milk properly.

Based on the results of the study, it was known that there were no respondents who had a good level of knowledge before being given video education about the prevention of breast milk dams. These results show that there are no third trimester pregnant women in the working area of the Dungaliyo Health Center who comprehensively understand the concept of preventing breastfeeding dams, both from theoretical and practical aspects.

According to Notoadmodjo, (2020) Knowledge can be defined as understanding, which means that knowledge is obtained and obtained when individuals study or observe an object and then apply it in daily life.

This is in line with the research of Tamilselvi, Ananthi, & Rangila (2020) in a study entitled "*A Study to Assess the Knowledge Regarding Breast Engorgement Among Postnatal Mothers*", which shows that most postpartum mothers only have a moderate to low level of knowledge related to breast milk dam prevention because the education provided during pregnancy has not touched the practical aspect of direct practice.

Similar results were found by Fitriani & Nurhaliza (2020) in the study "The Relationship between Age and Knowledge of Breastfeeding Mothers to the Incidence of Breast Milk Dams", which explained that the low practical knowledge of breastfeeding mothers is caused by the lack of exposure to visual media-based education that shows concrete steps to prevent breast milk dams.

The researcher assumes that the absence of respondents in the good category is due to the absence of educational media that is able to provide a learning experience based on direct observation, effective learning occurs when individuals can see and imitate correct behavior through concrete examples. Thus, learning video education is expected to be an effective strategy to build a higher level of knowledge, because it displays visually correct behavioral models, accompanied by an easy-to-understand explanatory narrative.

The level of knowledge of the mother after being given the Education Video Learning on the Prevention of Breastfeeding Dams in the work area of the Dungaliyo Health Center.

Based on the results of the study from 40 respondents, it is known that as many as 24 respondents (60%) have a good level of knowledge after being given video education on the prevention of breast milk dams. These results show a significant increase compared to before education, where previously there were no respondents with good knowledge. Based on the results of the analysis, respondents in this category were able to correctly answer almost all question items in the three dimensions, namely the dimensions of knowing, understanding, and applying. Most mothers are able to identify the causes of breast dams, explain the importance of exclusive breastfeeding, understand signs of hard breasts as symptoms of dams, and be able to properly explain breast care and breast massage steps. This increase in knowledge occurs because learning video media is able to present information visually and auditory at the same time, which makes it easier for mothers to understand the concept of preventing breastfeeding dams as a whole.

This is in line with the *Cognitive Multimedia Learning Theory* according to Mayer, (2021), which explains that the learning process will be more effective if information is presented through a combination of text, sound, and moving images that complement each other.

These results are in line with the research of Metin & Baltacı (2024) entitled "*The Effects of Video-Assisted Breastfeeding Education Given to Primiparous Pregnant Women on Breastfeeding Self-Efficacy*", which showed that the provision of video-based education significantly increased the confidence and practical ability of pregnant women to perform breastfeeding acts ($p < 0.001$). It is also in line with the research of Sari & Andayani (2021) in "*Video Education on Breastfeeding Technique and Its Impact on Maternal Knowledge and Breast Engorgement*", which found that video media is effective in increasing the technical knowledge of postpartum mothers and reducing the incidence of breast milk dams.

The researcher assumes that after being educated, mothers in this category not only understand the theory but are also able to apply practically breast milk dam prevention techniques. Learning videos successfully bridge the gap between concepts and actions through real simulations, so that knowledge increases significantly and transforms into behaviors that are more ready to be applied in daily life.

A total of 13 respondents (35%) were in the category of sufficient knowledge after being given video learning education. Despite the increase in the number of mothers who have moved from the category of less to sufficient, these results show that a small percentage of respondents are still at the stage of understanding basic concepts, but are not yet fully able to apply them consistently in practice. Based on the results of the analysis, most of the respondents were able to answer correctly on the tofu dimension, such as the cause of breast milk dams, signs of breast milk damping, and the importance of regular breastfeeding. However, respondents still

answered incorrectly on the dimensions of the application, especially in terms of explaining how to do breast massage and steps to take care of breasts during breastfeeding.

According to Notoatmodjo (2020), knowledge will not turn into behavior if it is not accompanied by motivation and repetitive learning. Mothers who fall into this category may still need longer to understand and practice the information obtained. The increase in their knowledge is already visible, but it has not been stable because the duration of educational exposure is relatively short.

This is supported by the research of Morgado, Costa, & Ferreira (2024) in "*Health Education Through Video: An Audiovisual Approach for Improving Health Literacy*", which shows that the effectiveness of video media increases significantly when interventions are carried out more than once with a certain time gap to strengthen retention.

Parallel research was also conducted by Putri, Rahmawati, & Hidayah (2022) in "*The Effectiveness of Video-Based Education in Reducing Breast Engorgement Among Postpartum Mothers*", which stated that increasing maternal knowledge is highly dependent on the level of attention and emotional engagement during watching videos. Respondents who were not fully focused during the education process tended to experience slower improvements.

The researcher assumes that mothers with sufficient knowledge categories have made progress in the aspect of conceptual understanding, but the increase in practical knowledge is still hampered by the limitations of direct experience, the intensity of education, and the possibility of distractions during the learning process.

As many as 3 respondents (7.5%) are still in the category of lack of knowledge after being given video learning education. Although this number is relatively small, these findings show that there are still some mothers who do not understand the educational material well. Based on the results of the analysis, respondents in this category still answered wrong on basic questions, especially on the dimension of understanding and the dimension of application, such as the effect of stress on the smooth flow of breast milk, the act of emptying the breast, and breast massage measures to prevent breast milk dams The majority of respondents in this category are known to have the last level of education in elementary school (SD). The low level of education affects the cognitive ability to understand new information that is technical and scientific.

According to Nursalam (2019), education level is one of the factors that affect a person's ability to receive and process health information. The higher a person's education, the easier it will be for him to understand new concepts, including in terms of preventing breast milk dams. In individuals with basic education, the process of absorbing information often requires repetition, direct guidance, and very simple learning media.

These results are in line with the research of Fitriani & Nurhaliza (2020) in "The Relationship of Age and Knowledge of Breastfeeding Mothers to the Incidence of Breast Milk Dams", which found that mothers with low levels of education had a 2.5 times greater risk of experiencing breast dams due to limited knowledge about the correct way to care for breasts.

In line with the research of Tamilselvi, Ananthi, & Rangila (2020) also revealed that most mothers with a primary education background only have a limited understanding of the causes and prevention of breast milk dams, because the educational materials delivered by health workers often use medical terms that are difficult to understand.

The researcher assumes that respondents with a basic level of education require a simple and repetitive visual education approach to improve learning effectiveness. Although learning videos have been shown to increase the knowledge of most respondents, for mothers with low literacy skills, reinforcement strategies are needed, such as face-to-face discussions or direct assistance by health workers after watching the videos.

Analysis of the Influence of Learning Video Education on Knowledge of Breastfeeding Dam Prevention in Mrs. Tri Smester III in the working area of the Dungaliyo Health Center.

This study was conducted for 3 days at the Dungaliyo Health Center, from 40 respondents divided into 3 groups consisting of 10-15 respondents, Before providing learning video education, the researcher first conducted a *pre-test stage* to determine the level of knowledge of the respondents about the prevention of breast milk dams. Respondents were given a knowledge questionnaire consisting of 15 closed-ended questions covering three dimensions, namely the tofu dimension, the understanding dimension, and the application dimension.

The time given for filling out the questionnaire is about 10–15 minutes. The results of filling out this *pre-test questionnaire* are used to assess the mother's initial level of knowledge before educational intervention is carried out. From these results, it was obtained that most of the respondents had sufficient and insufficient knowledge, and there were no respondents with good knowledge.

After the initial measurement stage was completed, the researcher then carried out an intervention in the form of education through a learning video about the prevention of breastfeeding dams with a duration of 5 minutes and presented in simple Indonesian so that it is easy to understand by all respondents. The content of the video includes material on the definition of breast milk dams, causes, clinical signs, and prevention methods including breast massage, correct breastfeeding positions, and how to empty breast milk. The video

screening activity was carried out in the counseling room of the Dungaliyo Health Center in small groups with a total of 10-15 respondents per session. During the video, the researcher ensured that all respondents paid close attention to the impression, then continued with a question and answer session and discussion to provide additional explanations related to the content of the video.

This educational activity lasted for approximately 30–40 minutes, including opening sessions, video screenings, questions and answers, and closing. After all respondents participated in educational activities, the researcher again distributed the *same post-test* questionnaire as the previous *pre-test questionnaire* to measure the level of knowledge of the respondents after receiving the intervention. Post-test filling is carried out in the same room with a duration of about 15 minutes. The researcher directly assists the filling process and provides the opportunity for respondents to ask questions if there are question items that are not understood.

During the implementation of the intervention, the researcher observed that the respondents seemed enthusiastic about participating in educational activities. Many of them asked questions, especially regarding the correct way to massage the breasts and the correct breastfeeding position. The results of the observation showed that video media was very helpful for respondents in understanding the measures to prevent breastfeeding dams because it displayed visual examples that were easy to follow.

After the implementation *of the post-test*, the results were obtained that the mother's level of knowledge increased significantly compared to before being given education. This increase shows that the provision of education through learning videos is effective in increasing mothers' understanding of breast milk dam prevention. The learning process that involves visual, audio, and practical explanations makes it easier for mothers to understand and remember the information conveyed.

Overall, the implementation of the intervention carried out by the researcher went well and according to plan. The stages start from the distribution of *pre-test* questionnaires, the provision of education through learning videos, interactive discussions, to the distribution of *post-test* questionnaires. All respondents actively participated in the activity and showed increased understanding after the activity was completed. These results confirm that learning video media can be used as an effective educational method to increase the knowledge of pregnant women in the third trimester in preventing breastfeeding dams in the working area of the Dungaliyo Health Center.

Based on the results of the analysis using the Wilcoxon Signed Rank Test, it was found that there was a significant difference between the level of knowledge of mothers before and after being given video education on the prevention of breastfeeding dams. The test results showed a value of $p = 0.000$ ($p < 0.05$), which means that the alternative hypothesis (Ha) was accepted and the null hypothesis (H0) was rejected. This means that there is a significant influence between the provision of learning video education on increasing the knowledge of mothers in the third trimester in the work area of the Dungaliyo Health Center. Descriptively, the average value of the mother's level of knowledge before education was 2.35 with a standard deviation of 0.483, while after being given video learning education, the average increased to 1.48 with a standard deviation of 0.640. The mean difference value of 0.87 indicates a marked improvement in knowledge after the intervention.

This result is also strengthened by the Sum of Ranks = 630.00, which indicates that most of the respondents experienced an increase in post-education knowledge scores. These results are consistent with the results of the Q&A which showed that after watching the video, most mothers were able to re-explain the measures to prevent breast milk dams more appropriately including breast massage techniques, breast emptying, and correct breastfeeding positions. This significant increase in knowledge is due to the effectiveness of learning video media in facilitating the visual and auditory learning process simultaneously.

According to Mayer (2021) in the theory of Cognitive Multimedia Learning, humans have two main channels for processing information, namely visual and auditory channels. If both are used simultaneously, information will be easier to understand, remember, and internalize into real behavior. In the context of this study, learning videos present information visually (images, animations, practice simulations) and verbally (explanatory narratives), thereby strengthening the ability to capture and retain information in respondents.

The results of this study are in line with the findings of Metin & Baltacı (2024) in a study entitled "*The Effects of Video-Assisted Breastfeeding Education Given to Primiparous Pregnant Women on Breastfeeding Self-Efficacy*", which showed that the provision of video-based education significantly increased the ability and confidence of pregnant women in breastfeeding practices ($p < 0.001$).

In line with the research of Putri, Rahmawati, & Hidayah (2022) in the study "*The Effectiveness of Video-Based Education in Reducing Breast Engorgement Among Postpartum Mothers*" reported that video media is able to reduce the incidence of breast milk flooding through increased knowledge and changes in breast care behavior. The research of Huda et al. (2022) also supports these findings, where the results of the meta-analysis show that visual educational interventions provide a significant improvement in knowledge scores, especially in the context of lactation.

The researcher assumes that the knowledge increase that occurs is the result of an active learning process and hands-on experience through realistic visual media. The visualization of breast massage techniques, breastfeeding positions, and breastfeeding dam prevention measures provides a concrete learning experience, so that the mother not only understands the theory, but can also internalize and recall the correct

steps. Thus, the results of this study confirm that the use of learning videos as an educational medium is effective in increasing the knowledge and readiness of pregnant women in the third trimester in preventing breast milk dams, as well as being a form of health education innovation that is applicable at the primary service level such as the Dungaliyo Health Center.

CONCLUSION

From the results of the analysis, the level of knowledge of mothers before being given Education Video Learning on the Prevention of Breastfeeding Dams from 40 respondents was obtained as many as 26 respondents (65%), had sufficient knowledge, then as many as 14 respondents (35%) had less knowledge and no mothers had a good level of knowledge.

From the results of the analysis, the level of knowledge of mothers was obtained after being given Education Video Learning on the Prevention of Breastfeeding Dams from 40 respondents, 24 respondents (60%) had good knowledge, then as many as 13 respondents (35%) had sufficient knowledge and as many as 3 respondents (7.5%) had a lack level of knowledge.

The results showed that there was an increase in the level of meaningful knowledge after being given an educational intervention, which was characterized by a change in the average value of respondents' knowledge from before the intervention of 2.35 to 1.48 after the intervention, with a mean difference of 0.87. The results of the *Wilcoxon Signed Rank Test* statistical test showed a significance value of *p-value* = 0.000 ($p < 0.05$), which indicates that there is a significant difference between the level of knowledge of mothers in the third trimester before and after being given video learning education.

ADVICE

It is hoped that health workers, especially midwives and maternity nurses, can use video learning media as an alternative method of health education that is more effective, interesting, and easily accepted by pregnant women. This media can be used in counseling activities, pregnant women's classes, and home visits, because it is able to bridge the gap between theoretical knowledge and practical skills in breast milk dam prevention.

It is hoped that the results of this research can be a source of information that is easy to understand and accessed at any time through learning video media. Pregnant women are expected to actively use this media to improve understanding and skills in caring for breasts and prevent breast milk dams.

The results of this research are expected to be strategic inputs to develop sustainable digital technology-based health education programs. Puskesmas can use this learning video as a permanent medium in counseling activities for pregnant women, posyandu, and other health promotion programs.

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