



Health Education Using Video Media And Demonstration Methods On Knowledge, Attitudes, And Skills Of Self Examination Among Female Adolescents

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Received: 13 September 2025/Accepted: 27 February 2026/Published Online: 28 February 2026

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Abstract

Breast cancer is one of the cancer that has a high mortality rate and is the type of malignancy that most often affects women. Handling breast cancer can be done with the SADARI demonstration method to detect early breast cancer. This study aims to determine the effect of health education with video media and demonstration method on knowledge attitudes and skill of SADARI in adolescent girls of SADARI in adolescent girls at SMAN 1 Gunungsari. This study used a Pre-experimental design with a One Group Pretest-Posttest design. The research sample was young women who were selected using proportional random sampling technique. Data analysis using the Wilcoxon Signed Rank Test. The results showed significant increase in knowledge, attitudes, and skills after the SADARI demonstration method. With a p value = 0,000 or $p < \alpha = 0,05$, which means that the null hypothesis (H_0) is rejected or the alternative hypothesis (H_a) is accepted, which means that there is an effect of health education with video media and demonstration methods on knowledge attitudes and skill of SADARI in adolescent girls. Health education with video media and demonstration method affects the knowledge, attitudes, and skills of SADARI among adolescent girls at SMAN 1 Gunungsari. So it is expected that young women can perform SADARI routinely according to the correct steps.

Keywords: Breast Self Examination; Video

INTRODUCTION

Adolescent girls undergo various physical changes, including menstruation and breast development, which are essential aspects of their growth and development. These changes often stimulate curiosity and necessitate adequate knowledge, particularly when abnormalities such as breast cancer arise (Darmawati et al., 2022). However, one of the contributing factors to the high incidence of breast cancer is the lack of education provided during adolescence regarding early detection and appropriate management. Adolescents' attitudes and behaviors toward breast self-examination (BSE) as an early detection method remain inadequate. Many adolescents

are unable to perform BSE due to insufficient knowledge and skills, which may contribute to the increasing incidence of breast cancer (Kusumawaty et al., n.d., 2021).

According to the World Health Organization (WHO), in 2022, approximately 2.3 million women were diagnosed with breast cancer, and 670,000 deaths were reported worldwide. In Indonesia, the prevalence of cancer remains high. Data from Globocan (2021) indicated that there were 65,858 cases (30.8%) of breast cancer out of a total of 213,546 cancer cases among women. Furthermore, based on the 2024 West Nusa Tenggara Provincial Health Profile, the prevalence of early breast cancer detection through clinical breast

examinations (SADANIS) across regencies in 2023 showed varying results. North Lombok recorded the highest number of referrals for tumors and suspected breast cancer cases, with 24 cases out of 8,637 examinations. This was followed by Sumbawa with 19 cases out of 2,509 examinations, West Lombok with 14 cases out of 11,245 examinations, West Sumbawa with 8 cases out of 1,662 examinations, East Lombok with 7 cases out of 106,244 examinations, and Mataram City with 5 cases out of 1,817 examinations. Additionally, data from the 2024 West Lombok Health Profile revealed that the highest prevalence of clinical examination results (SADANIS) was found in the Gunungsari Community Health Center (Puskesmas), where 8 women of reproductive age were identified with tumors or lumps and 6 women were suspected of having breast cancer. Further data from the Gunungsari Health Center indicated that Tamansari Village had the highest number of cases (3 cases), followed by Gunungsari Village (2 cases), and Kekait, Dopang, and Mekarsari Villages (1 case each).

Several factors are believed to contribute to the incidence of breast cancer, including lifestyle changes such as increased consumption of fast food, frequent exposure to radiation from electronic devices, and environmental changes (Wahyuni, 2020). Other contributing factors include environmental influences, limited information provided by health workers to adolescent girls, and a lack of knowledge regarding breast self-examination (BSE/SADARI) (Darmawati et al., 2022). The use of video media in health education serves as an effective tool to stimulate learners' feelings, thoughts, and motivation by delivering ideas, concepts, and information in an audio-visual format (Wisada, 2019). In addition, the demonstration method is a teaching approach that involves illustrating objects, processes, and sequences of activities, thereby enhancing understanding through the use of visual aids and direct observation (Aeni et al., 2018).

Based on the aforementioned background, the researchers are interested in conducting a study entitled *The Effect of Health Education Using Video Media and the Demonstration Method on Adolescent Girls' Knowledge, Attitudes, and Breast Self-Examination Skills*

METHOD

This study employed a pre-experimental one-group pretest–posttest design to evaluate the effect of health education using video media and demonstration methods on adolescent girls' knowledge, attitudes, and breast self-examination (BSE/SADARI) skills. The study was conducted at SMAN 1 Gunungsari, West Lombok Regency, with a population of 443 female students.

A sample of 64 participants was determined using the Lynch formula. Proportional random sampling was applied based on grade level, using the student list as the sampling frame. Simple random sampling with a random number generator was then used to select participants from each group. Inclusion criteria were female students aged 15–18 years who were willing to participate and provided informed consent, while those absent during data collection or with prior formal BSE training were excluded.

Data were collected using structured questionnaires and an observation checklist. Knowledge was measured using multiple-choice questions, attitudes were assessed using a Likert-scale questionnaire, and skills were evaluated through a standardized BSE observation checklist. All instruments were tested for validity and reliability, with acceptable internal consistency. Skill assessments were conducted by trained observers, and inter-rater reliability was ensured.

Data collection was conducted in two stages: pretest (before intervention) and posttest (after intervention). Data were analyzed using the Wilcoxon Signed Rank Test with a significance level of $p < 0.05$.

Ethical approval was obtained from Poltekkes Kemenkes Mataram with number DP 04.03/FXLVIII 14/131/2025, and informed consent was secured from all participants. Confidentiality and voluntary participation were maintained throughout the study.

RESULTS AND DISCUSSION

Table 1. Distribution of Respondents based on class, age, and information exposure

No	Skill before providing health education		Skill after providing health education		
	Skill Category	n	(%)	n	(%)
1	Good	0	0	34	53
2	Enough	0	0	30	47
3	Lack	64	100	0	0
	Total	64	100	64	100

Table 1 shows that the class groups are evenly distributed, with class X having 32 respondents (50%) and class XI also having 32 respondents (50%). The largest age group of respondents is 16 years old, with 39 respondents (61%), while the smallest age group is 18 years old, with 2 respondents (3%). The group that has never received information about SADARI consists of 63 respondents (98%).

Table 2. Distribution of Respondents' Knowledge Before and After Providing Health

Education Using Video Media and Demonstration

No	Knowledge before providing health education		Knowledge after providing health education		
	Knowledge Category	n	(%)	n	(%)
1	Good	0	0	55	86
2	Enough	6	9	9	14
3	Lack	58	91	0	0
	Total	64	100	64	100

Table 2 shows that before receiving health education, the majority of respondents had insufficient knowledge, with 58 respondents (91%) and after receiving health education, the majority of respondents had good knowledge, totaling 55 respondents (86%).

Table 3. Distribution of Respondents' Attitudes Before and After Receiving Health Education with Video Media and Demonstration Method at SMAN 1 Gunungsari, March 2025 (n=64)

No	Attitude before providing health education		Attitude after providing health education		
	Attitude Category	n	(%)	n	(%)
1	Positive	18	28	41	64
2	Negative	46	72	23	36
	Total	64	100	64	100

Table 3 shows that before receiving health education, the majority of respondents had negative attitudes, with 46 respondents (72%) and after receiving health education, the majority of respondents had a positive attitude, with 41 respondents (64%).

Table 4. Distribution of Respondents' Skills Before and After Receiving Health Education with Video

No	Knowledge before providing health education		Knowledge after providing health education		
	Knowledge Category	n	(%)	n	(%)
1	Good	0	0	55	86
2	Enough	6	9	9	14
3	Lack	58	91	0	0
	Total	64	100	64	100

Table 5. Results of the Wilcoxon Sign Rank Test on Health Education using Video Media and Demonstration Method on SADARI Knowledge, Attitude, and Skill among Female Adolescents at SMAN 1 Gunungsari, March 2025 (n=64)

Knowledge Variabel	Mean	Std.	Mi n	Ma x	P Value
Knowledge Pretest	5.56	1.85 9	2	11	p<0.00 1
Knowledge Posttest	13.25	1.51 2	9	15	p<0.00 1
Attitude Pretest	20.42	3.65 1	12	25	p<0.00 1
Attitude Posttest	38.19	1.35 5	36	40	p<0.00 1
Skill Pretest	.08	.625	0	5	p<0.00 1
Skill Posttest	8.20	1.38 2	6	10	p<0.00 1

Table 5 shows the results of further statistical tests indicate that the difference in knowledge before and after the health education shows a significant effect of health education using video media and demonstration methods on SADARI knowledge among adolescent girls at SMAN 1 Gunungsari (P Value 0.000 $\alpha < 0.05$). The results of further statistical tests indicate that the difference in attitudes before and after receiving this health education shows a significant effect of health education using video media and demonstration methods on the SADARI attitudes of adolescent girls at SMAN 1 Gunungsari (P Value 0.000 $\alpha < 0.05$). The

results of further statistical tests show a difference in skills before and after receiving this health education, indicating a significant effect of health education using video media and demonstration methods on SADARI skills among female adolescents at SMAN 1 Gunungsari (P Value 0.000 $\alpha < 0.05$).

The Knowledge of Respondents Before and After Being Given Health Education with Video Media and Demonstration Method on Knowledge, Attitudes, and Skills of SADARI in Female Adolescents at SMAN 1 Gunungsari

Based on the results of the pre-test conducted on 64 respondents, the knowledge of respondents regarding SADARI is mostly categorized as adequate, with 6 respondents (9%) falling into this category, and 58 respondents (91%) categorized as having inadequate knowledge.

Age, education, occupation, experience, and access to information are factors that contribute to the level of knowledge (Notoatmodjo, 2020). A person's responsiveness and mindset will develop along with age, meaning they will acquire more knowledge. The thinking process and decision-making in determining readiness are influenced by age maturity (Puji, 2021). According to research findings, 58 respondents (91%) have low knowledge, and the majority of respondents are 16 years old, totaling 39 (67%). The knowledge possessed at the age of 16 will diminish because at this age, more focus is on personal freedom, which affects the learning process and problem-solving abilities (Notoatmodjo, 2021).

The lack of information about SADARI makes teenage girls unaware of SADARI and not know how to perform it to prevent breast cancer early (Maryati et al., 2022). Based on the results of an interview with a school health officer at SMAN 1 Gunungsari on January 11, 2025, it was found that there had previously been outreach regarding SADARI in the school environment. Looking at the characteristics of the

respondents based on their history of being exposed to information, data shows that out of 64 respondents, 63 respondents (98%) had not been exposed to information, thus their knowledge falls into the poor category, and 1 respondent (2%) had been exposed to information obtained from social media, which puts their knowledge in the sufficient category. This is in line with research results that show the majority of respondents have poor knowledge, with 58 respondents (91%) and 6 respondents having sufficient knowledge (9%).

Based on the theories and facts presented, the researchers argue that before being provided with health education using video media and demonstration methods, the respondents had insufficient knowledge about SADARI, which was influenced by age and a lack of information exposure.

The results of the post-test on 64 respondents showed that the knowledge of the respondents was mostly categorized as good, with 55 respondents at a percentage of (86%) and in the sufficient category, also with 55 respondents at a percentage of (14%). Video media is the combination of audio technology with visual technology simultaneously to create a dynamic and engaging viewing experience. When involving both visual and auditory channels, it can encourage deeper understanding and retention of concepts, procedures, and techniques. The video approach will facilitate cognitive processes and help learners understand complex medical concepts and procedures, contributing to improved knowledge acquisition (Morgado et al., 2024). A practical method for developing mental, physical, and technical aspects is called the demonstration method (Wahdi et al., 2020).

The distance and timing of the intervention with the post-test will influence the improvement of adolescents' knowledge. This is related to memory retention, the shorter the distance between the

intervention and the post-test, the better the post-test results will be, as the memory is still strong (Prastini et al., 2022). Based on this theory, the research conducted by the researchers over 4 days and the post-test was done on the fourth day with less than 1 day between the delivery of the material and the post-test. Knowledge is influenced by the intensity of learning, according to Lestari et al., 2020. Learning intensity is the number of activities a person engages in to acquire knowledge, manifested through actions, habits, or frequency in studying. This study was conducted by providing health education for three consecutive days to improve the respondents' knowledge.

Based on the facts and theories presented, the researchers argue that after being provided with health education using video media and demonstration methods, the respondents' knowledge about SADARI has increased, influenced by the exposure to information, the time gap between the intervention and the post-test, and the intensity of learning.

The Attitudes of Respondents Before and After Being Given Health Education Using Video Media and Demonstration Method Regarding Knowledge, Attitudes, and Skills of SADARI Among Adolescent Girls at SMAN 1 Gunungsari

Based on the results of the pre-test conducted on 64 respondents, the attitudes of the respondents regarding SADARI are mostly in the negative category, with 46 respondents at a percentage of (72%) and those in the positive category are 18 respondents at a percentage of (28%).

According to Ariyana, 2020, knowledge is a factor that influences attitudes; insufficient knowledge can lead to negative attitudes. The research conducted by the researchers before providing health education showed that the majority of respondents' knowledge was in the insufficient category, with 58 respondents (91%), and most respondents' attitudes were also in the negative category, with 46 respondents (72%). This proves that the knowledge of adolescent girls about

SADARI is still lacking, resulting in many adolescents having negative attitudes.

The results of the post-test conducted on 64 respondents showed that the attitudes of the respondents were mostly in the positive category, with 41 respondents representing 64%, and those in the negative category were 23 respondents, also representing 36%.

Changes in attitude are fundamentally influenced by factors of knowledge, beliefs or convictions gained from sensing results, which are partly acquired through education or learning processes. Education is one of the tools to bring about changes in human beings, because through education individuals can learn about everything. Education is defined as a process using certain methods so that people acquire knowledge, understanding, and behaviors that align with their needs (Ristraningsih, 2017). This is consistent with the findings of the research conducted by the researcher. The results of the post-test show that 55 respondents (86%) have good knowledge and 41 respondents (64%) have a positive attitude. This is due to the increase in knowledge among respondents, which leads to positive changes in attitude.

Based on the facts and theories presented, the researchers argue that after being provided with health education using video media and demonstration methods, the majority of respondents' knowledge falls into the good category, with 55 respondents accounting for 86%, and the majority of respondents' attitudes fall into the positive category, with 41 respondents accounting for 64%. This occurs because of the increase in respondents' knowledge, which influences a positive change in their attitudes.

The Skills of Respondents Before and After Receiving Health Education with Video Media and Demonstration Method on Knowledge, Attitudes, and Skills of SADARI in Female Adolescents at

SMAN 1 Gunungsari

Based on the results of the pre-test conducted on 64 respondents, it shows that the respondents' skills regarding SADARI are all in the insufficient category, with 64 respondents at a percentage of (100%).

Based on the research results, it was found that before receiving health education using video media and demonstration methods about SADARI, all respondents were unable to perform SADARI correctly, with a percentage of 100%. This is evident from each item of the examination steps indicating that respondents did not practice any of the examination steps, resulting in a score of 0 for each item of the steps to perform SADARI.

The research conducted by Wardoyo in 2022 states that knowledge and attitude have a strong influence on a person's skills. This theory is in line with the research results showing that the pre-test knowledge of the respondents was dominated by insufficient knowledge and negative attitudes, which also resulted in inadequate skills.

Lack of skills is also influenced by a lack of experience in performing SADARI, resulting in respondents having no real picture to address the issue (Fatimah, 2018). In addition, there are environmental factors. A person also does not perform SADARI if the environment around them is not doing the same (Farasari, 2023). These two aspects are evidenced by the characteristics of the respondents based on prior exposure to information, where only 1 respondent had been exposed through social media, meaning that the 64 respondents had no experience concerning SADARI and there was no one around them performing SADARI.

Based on the facts and theories presented, the researchers argue that according to the results of the study, respondents are not skilled in performing SADARI due to several factors, namely the knowledge

factor, as evidenced by the knowledge test scores before health education was provided using video media and demonstration methods, where the majority fell into the inadequate category, which is 58 respondents with a percentage of 91%. Moreover, attitude also affects a person's skills, as evidenced by the attitude scores that were still dominated by negative attitudes before health education was provided using video media and demonstration methods, with 46 respondents having a percentage of 72%. Additionally, there are other factors such as experience and environment.

Based on the results of the post-test conducted on 64 respondents, it shows that the respondents' skills regarding SADARI are mostly in the good category, with 34 respondents (53%), while 30 respondents (47%) are in the sufficient category.

The improved SADARI skills among adolescent girls are influenced by health education (Fadhila, 2020). For health education, this study uses video media and demonstration methods. One advantage of video media is that it can present movements or steps. The demonstration method is a way to show a process using tools (Gusti, 2019).

Based on the facts and theories presented, the researchers believe that after receiving health education using video media and demonstration methods, the majority of participants fell into the good category, with 34 respondents representing 53%. This is influenced by the provision of health education using video media and demonstration methods, as evidenced by the increase in knowledge and attitudes, which in turn caused the respondents' skill levels to rise.

Analysis of the Influence of Health Education Using Video Media and Demonstration Methods on Knowledge, Attitudes, and Skills of Breast Self-

Examination (SADARI) Among Female Adolescents at SMAN 1 Gunungsari

The research results show that knowledge, attitudes, and skills of SADARI are influenced by health education using video media and demonstration methods conducted at SMAN 1 Gunungsari. After the health education was provided, the average scores of each variable increased.

This study is in line with the research by Rina et al., 2020 titled the influence of demonstration and audiovisual methods on self-breast examination (SADARI) skills. In this study, the results showed a P Value of $0.000 < 0.05$, indicating that there is a significant effect on the respondents' ability to perform SADARI.

Video media is more effective because it emphasizes the hearing and sight of the targets, delivers engaging messages quickly, is easy to remember, and can develop the imagination of adolescent girls (Munadi, 2020). The demonstration method presents procedures in a sequential manner. This method has several advantages, such as providing specific skills to the target group, making the process more engaging, and making learning easier to understand (Kurniawan, 2020).

Based on the discussion above, the researchers conclude that health education using video media and demonstration methods has an impact on knowledge, attitudes, and skills of SADARI among female adolescents at SMAN 1 Gunungsari

CONCLUSION

The research results show that knowledge, attitudes, and skills of SADARI are influenced by health education using video media and demonstration methods conducted at SMAN 1 Gunungsari. After the health education was provided, the average scores of each variable increased.

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