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The Effect of Providing Self-Breast Examination (SADARI) Educational Videos on The Level of Sadari Knowledge among Adolescent Girls in Kebonromo Village, Ngrampal District, Sragen Regency

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The objective of this study is to determine the influence of providing SADARI educational videos on the SADARI knowledge level. This research employs a quasi-experimental design, specifically a quantitative one-group pretest-posttest with a cross-sectional approach. Data analysis is conducted using the Wilcoxon test. The population in Kebonromo village comprises 153 adolescent female respondents, and the sample is selected through simple random sampling, involving 60 respondents. The pretest results indicate that one respondent has sufficient knowledge, while 59 respondents have insufficient knowledge. In the posttest, 47 respondents exhibit good knowledge, and 13 respondents have sufficient knowledge. Bivariate analysis using the Wilcoxon test reveals Asymp.Sig (2-tailed) with a significance value of 0.000. In conclusion, there is an influence of SADARI education with video on the SADARI knowledge level among adolescent girls in Kebonromo village, Ngrampal district, Sragen regency.

Keywords: Education; Knowledge; SADARI; Video.

Introduction

The adolescent period is a time of significant changes in an individual undergoing growth and the development of secondary sexual characteristics. Adolescent girls and boys experience distinct transformations, with girls undergoing menstruation, breast development, and the emergence of other femininity signs, while boys undergo the development of masculinity indicators (Aeni & Yuhandini, 2018). During adolescence, girls experience rapid growth and development of the breasts due to increased levels and activity of estrogen hormones, stimulating the breasts to reach optimal size and function (Heny Prasetyorini, 2022). Concerning breast changes in adolescent girls, vigilance is needed regarding breast cancer. Breast cancer is a disease that often leads to death among women. It occurs due to damage to growth and differentiation genes, allowing cells to grow and proliferate uncontrollably, potentially spreading through the bloodstream (Amanda Amalia, Desy Widyastutik, 2017). Breast cancer is a leading cause of death among women, occurring not only in middle-aged women but also in young individuals due to various factors, including diet, alcohol

consumption, genetic factors from family history, and exposure to radiation (Risma Nur Istiqomah, Anggit Eka Ratnawati, 2022). The highest incidence rate for women is breast cancer, at 42.1 per 100,000 population, with an average death rate of 17 per 100,000 population, followed by cervical cancer at 23.4 per 100,000 population, with an average death rate of 13.9 per 100,000 population (Riskesdas Report, 2018). The most prevalent cancer in women is breast cancer, as evidenced by 2,000 cases treated at Dr. Moewardi Hospital in 2018, surpassing other types of cancer (Wahyuningsih et al., 2018).

To prevent the increasing incidence of breast cancer in women, early detection measures are crucial, especially in adolescent girls. The Self-Breast Examination (SADARI) technique is essential for early detection. SADARI involves a woman's self-awareness and specific steps to detect early signs of breast cancer, enabling the identification of changes occurring in the breasts (Ritta Wijiastuti, Putri Azzahroh, 2023).

To disseminate awareness of Self-Breast Examination (SADARI) among adolescents, it is crucial to conduct education using various methods, such as lectures, role-plays, or video media. Effective education methods leverage concrete experiences as learning models (Rahayu et al., 2022).

Based on interviews with six adolescent girls in Dukuh Ngampunan, Kebonromo Village, Ngrampal District, Sragen Regency, it was found that none of the adolescents were familiar with SADARI or early detection of breast cancer.

Method

This study employs a quantitative quasi-experimental research design with a cross-sectional approach, specifically utilizing a one-group pretest-posttest design. The population comprises all adolescent girls aged 15-21 years in Kebonromo Village, Ngrampal District, totaling 153 individuals. The sampling technique used is simple random sampling, with a sample size of 60 respondents.

The research instruments consist of a video and a questionnaire. The video is adopted from the Ministry of Health of the Republic of Indonesia's Health Promotion and Disease Prevention Program (P2PTM Kemenkes RI) with the title "Let's Detect Breast Cancer Early," having a duration of 5 minutes and 16 seconds. The questionnaire used in this research, titled "Questionnaire on Knowledge Regarding Self-Breast Examination," is adapted from Hadrianti, S.'s study conducted in 2017.

Research Findings

1. Research Location Overview

Kebonromo Village is a locality situated in the Ngrampal District, Sragen Regency. Positioned to the east of Sragen City, Kebonromo Village shares its southern border with Bener Village, the western border with Pilangsari Village, and the northern border with Gabus Village.

2. Data Analysis

a. Univariate Analysis

1. Respondent Characteristics Based on Age

Tabel 1 Frequency Distribution of Adolescent Girls Based on Age

Age	Total	Percentage %
15-18 years old	34	57%
19-21 years old	26	43%
Total	60	100%

Based on Table 1, it is observed that out of the 60 respondents, 34 individuals (57%) fell within the age range of 15-18 years,

while 26 individuals (43%) were in the age group of 19-21 years.

2. Characteristics of Respondents Based on Education

Table 2 Frequency Distribution of Adolescent Girls Based on Education

Education	Total	Precentage %
Junior High School	10	17%
Senior High School	39	65%
College Student	11	18%
Total	60	100%

Result shown on that out of the 60 respondents: 10 respondents (17%) had completed junior high school (SMP), 39 respondents (65%) had completed senior high school (SMA), 11 respondents (18%) were college students.

3. Respondent Characteristics Based on Occupation

Table 3 Frequency Distribution of Adolescent Girls Based on Occupation

Occupation	Total	Percentage %
Working	14	23%
Unemployed	46	77%
Total	60	100%

According to Table 3, it is evident that out of the 60 respondents, 14 individuals (23%) were employed, while the majority, consisting of 46 respondents (77%), were not engaged in employment.

4. SADARI Knowledge Level Before Video Education

Table 4 Knowledge Level Before Video Education

Knowledge	Average	Total	Percentage%
Good	0	0	0%
Sufficient	8,0000	1	2%
Insufficient	5,9661	59	98%

Result on Table 4 shown that 59 respondents (98.3%) had insufficient knowledge with an average score of 5.96, while 1 respondent (1.7%) had sufficient knowledge with an average score of 8.00 before being provided with video education.

5. **Knowledge Level of SADARI After Receiving Video Education**

Table 5 Knowledge Level After Receiving Video Education

Knowledge	Average	Total	Percentage %
Good	12,7872	47	80%
Sufficient	10,1654	13	20%
Insufficient	0	0	0%

The above table has known that 47 respondents (80%) acquired good knowledge with an average score of 12.78, while 13 respondents (20%) obtained sufficient knowledge with an average score of 10.16 after receiving video education.

b. Bivariate Analysis

After conducting a normality test using the Kolmogorov-Smirnov Test, it is evident that the results both before (Sig. = 0.000) and after (Sig. = 0.000) providing video education show a significance level of 0.000. From the results of the normality test, it is understood that the significance level is less than 0.05, indicating that the data distribution is not normal. The hypothesis test utilized a non-parametric statistical method, namely the Wilcoxon test.

The Wilcoxon test output indicates that Asymp.Sig (2-tailed) has a value of 0.000. Because the value of 0.000 is less than <0.005, it can be concluded that the hypothesis is accepted. This means that there is an influence of providing SADARI education with video on the knowledge level of adolescent girls.

Table 6 Tests of Normality

Tests of Normality					
Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Statistic	Df	Sig.	Statistic	Df	Sig.
.193	60	.000	.866	60	.000
.177	60	.000	.915	60	.001
a. Lilliefors Significance Correction					

Table 7 Tests Statistics[a]

Test Statistics[a]	
	POST - PRE
Z	-6.772[b]
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks	

Discussion

The discussion in this study revolves around the characteristics of the respondents, including their age, education, and occupation. Based on the research findings, it's evident that there were 34 respondents (57%) aged 15-18 years, and 26 respondents (43%) aged 19-21 years. These assertion that respondents in these age groups are more likely to easily grasp and remember information.(Trewin et al., 2017).

The research results also indicate that 10 respondents (17%) had junior high school education, 39 respondents (65%) had senior high school education, and 11 respondents (18%) were university students. That education significantly influences knowledge. The higher the level of education, the easier it is for individuals to receive information.(Yusuf et al., 2022)

The research findings has determined that 14 respondents (23%) were employed, while 46 respondents (77%) were not employed. The level of knowledge, attitudes, and health behavior regarding SADARI could be influenced by their formal education level.(Jiang et al., 2023)

In this study, it was found that before receiving SADARI education, 59 respondents (98%) had limited knowledge, with an average score of 5.96 regarding SADARI. However, after being provided with SADARI education through video, 47 respondents (78%) displayed good knowledge, with an average score of 12.78 about SADARI.

These findings are consistent with the research conducted by Lestari (2019), which demonstrated a p-value of 0.000, indicating a significant impact of health education using audio-visual (video) media on the knowledge of adolescent girls regarding breast self-examination (SADARI).

The use of video as an educational medium in this study facilitated adolescents' understanding of the importance of SADARI and enabled them to apply it independently. After receiving SADARI education, it was determined that 47 respondents (80%) possessed good knowledge. As suggested by Hamida (2012), engaging and easily comprehensible media in the learning process can prevent boredom and enhance knowledge acquisition.

The results of the statistical analysis, using the Wilcoxon test, revealed an Asymp.Sig(2-tailed) value of 0.000. Since this value is smaller than <0.005, it can be concluded that the provision of SADARI education has a significant influence on the knowledge level of adolescent girls, as evidenced by the research conducted on 60 adolescent female respondents in the village of Kebonromo, Ngrampal, Sragen.

In this study, the use of SADARI videos serves to provide a clearer understanding of the importance of breast self-examination. It goes beyond mere verbal instruction by allowing viewers to directly observe and comprehend the steps of SADARI through visual aids. Erviana (2013) elaborated on the advantages of video media, drawing upon Edgar Dale's experiential insight, which posits that 50% of human effectiveness stems from visual and auditory learning.

These findings find support in Emi's (2014) research, which compared education delivery methods via lectures and videos. Emi's (2014) study demonstrated that video-based education was significantly more effective in

enhancing knowledge, achieving a 4.0% greater improvement compared to lectures.

The provision of SADARI education through videos from the Directorate of Non-Communicable Disease Prevention and Control (P2PTM), Ministry of Health, Republic of Indonesia, explicates the steps of breast examination.

These videos are a means to convey messages through visuals, with the aim of positively influencing behavior and health knowledge. This aligns with Rahmawati's (2017) research, which asserts that video media is a tool that individuals can readily accept, as 75-87% of human knowledge is acquired through visual perception and 13-25% through auditory perception. Consequently, video media can be employed as an effective tool for health education, contributing to improved knowledge among adolescent girls.

In this study, it is evident that video media can enhance knowledge about SADARI among adolescent girls. Their study found an 8.62-point difference in the understanding of SADARI among adolescent girls before and after receiving education through videos.

The delivery of information via videos has a significant impact on improving the comprehension of SADARI among adolescent girls (José Felipe Costa da Silva et al., 2022).

In this study, another factor impacting the effectiveness of SADARI education through video on the knowledge level of adolescent girls is their exposure to mass media information.

Respondents had previously acquired information from sources such as television and the internet before receiving information from the researchers. Consequently, these respondents already possessed some level of knowledge about SADARI.

The significant influence of mass media information on the reproductive health knowledge of students. Their research indicated that the internet and other forms of mass media were the primary sources of information among adolescents. (Khapre et al., 2022)

Conclusion

The results of this study lead to the conclusion that providing SADARI education through video has a discernible impact on the knowledge level of SADARI among adolescent girls in the village of Kebonromo, Ngrampal sub-district, Sragen regency.

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