

The Effect of Health Education Using Audiovisuals on The Knowledge of Adolescent Girls about Breast Self-Examination (BSE)

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Abstract:

Cancer is a non-communicable disease with the second-largest death rate in the world. Breast cancer is one of the main diseases treated by palliative care services. Breast cancer is the most common cancer among women in the world. Early detection is a very important first step to find out early the presence of tumors or lumps in the breast to reduce the death rate due to cancer. The advantage of early detection of breast cancer is beneficial to increase the chances of life expectancy in women with breast cancer. Almost 85% of disorders or lumps are found by the patient through proper examination. In addition, BSE is the easiest, fastest, cheapest, and simplest method that can detect breast cancer early. Knowing the Effect of Health Education Using Audio Visual Media on Adolescent Girls' Knowledge about BSE at SMAN 10 Tangerang Regency Banten 2023. The research design used was quasi-experimental research with a one-group pretest-posttest design approach. The population used in this study was class X adolescent girls at SMAN 10 Tangerang Regency totaling 155 people. The number of samples taken was 30 samples obtained through the Proportionate Stratified Random Sampling technique. Data were collected using a questionnaire. Data analysis was done by Paired T Test. The results of univariate analysis before conducting health education using audio-visual video exposure were 10.67, while the average knowledge of adolescent girls increased after health education to 15.60. The results of bivariate analysis with paired sample t-test P value = 0.001 means that there is an effect of counseling with audiovisual media on increasing the knowledge of adolescent girls about breast self-examination. Using audiovisual media to increase knowledge about breast self-examination (BSE) for early detection of cervical cancer.

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INTRODUCTION

Cancer is a disease that arises due to abnormal growth of body tissue cells that experience genetic mutations caused by genetic factors, lifestyle factors and carcinogenic factors (Kusmardika, 2020). Cancer is a non-communicable disease with the second largest death rate in the world (Wahdaniyah et al., 2023). Breast cancer is one of the main diseases treated by palliative care services. Breast cancer is the most common cancer among women in the world (Fibriansari & Azizah, 2023). Breast cancer that is detected and treated early has a better chance of a successful outcome than breast cancer that is detected and treated at an advanced stage (Iddrisu et al., 2023).

The incidence of cancer in Indonesia in 2020 reached 396,914 cases with a death rate of 145 people per 100,000 sufferers. The details of the number of sufferers are breast cancer as

many as 65,858 cases, then cervical cancer 36,633 cases, followed by other cancers and total deaths of 234,511 cases per 270,203,917 people. From the data on the results of early detection of breast cancer, 26,550 experienced breast lumps and 4,685 were suspected of breast cancer (Indonesian Ministry of Health, 2020).

Data from Banten Province The number of breast cancer patients in Banten Province is quite high. Based on data from Tangerang Regency Hospital as a referral hospital for Banten Province, in 2019 alone there were 4,289 patients, of which around 12% or 503 patients were new patients. According to data from the Tangerang Regency Health Office in 2020, in the early detection examination of breast cancer in 4643 people who conducted 146 examinations were suspected of having a tumor or lump in the breast (Banten Provincial Health Office, 2020).

Early detection is a very important first step to find out early the presence of tumors or lumps in the breast so as to reduce the death rate due to cancer. The advantage of early detection of breast cancer is beneficial to increase the chances of life expectancy in women with breast cancer. Almost 85% of disorders or lumps are found by the patient themselves through proper examination. In addition, breast self-examination (BSE) is the easiest, fastest, cheapest, and simplest method that can early detect breast cancer. (Delvia et al., 2021). Because breast screening is not routine for many women, early detection of breast cancer is often delayed (Kurniyawan et al., 2023).

One of the ways that can be done to reduce the mortality rate is by conducting early detection of breast cancer, one of which is breast self-examination. Breast self-examination is an act of developing a woman's concern for the condition of her own breasts. Increasing adolescents' knowledge about breast self-examination as early as possible can have a good influence on adolescents until they become adult women later. One of the efforts that can be made to increase adolescents' knowledge of breast self-examination is to provide health education (Lestari et al., 2019).

Health education is an individual or community effort to achieve skills for well-being in everyday life. As healthcare workers, especially nurses, have a responsibility to convey motivational messages about the importance of education to patients (Kurniyawan et al., 2023). Audiovisual media is a complete means that combines visual forms with audio. This media is used to assist the teacher's explanation as a reinforcement or means of exploration. This media is not only developed in the form of films but can be developed via computer facilities using PowerPoint and flash player techniques (Noviyanti et al., 2023).

METHOD

This research uses quasi-experimental research, which is carried out on only one group, the experimental group, without a comparison group or control group (Arikunto, 2006). The research design used is one group pre-test-post test design, which is experimental research carried out on only one randomly selected group that does not test the stability and clarity of the group's state before being given treatment. The research design of one group pre-test and post-test design is measured using a pre-test conducted before treatment and a post-test conducted after treatment for each learning series.

After calculating the number of samples based on the total population using the Lameshow formula with an additional 40% to anticipate dropouts, the results found 30 respondents. The number of samples for each unit is obtained through the Proportionate stratified Random Sampling technique.

There are inclusion and exclusion criteria in this study, for inclusion criteria: 1) Students who are willing to become respondents, 2) Class X students, 3) Students who have experienced puberty, 4) Students who follow until the end of the study, and 5) Students who have good visual (not blind).

Data analysis is done first normality test, calculating the ratio of skewness and kurtosis. Correlation test using Paired t-test.

RESULT

Univariate Analysis

Table 1. Univariate Analysis

Knowledge	N	Mean	Std. Deviation	Min	Max
Before	30	10.67	1.539	8	14
After	30	15.60	1.480	13	19

Based on Table 1, the knowledge of adolescent schoolgirls before conducting health education using audio-visual video exposure is 10.67, with a standard deviation of 1539. After conducting health education using audiovisuals, the average knowledge of adolescent schoolgirls increased to 15.60 with a standard deviation of 1480. So, this shows that there is an increase in the knowledge of adolescent girls before and after being given health education using audiovisuals about breast self-examination (BSE).

Bivariate Analysis

Table 2. Effect of Audio-Visual Media Health Education on Knowledge of Breast Self Examination (BSE)

Knowledge	N	Mean	Std. Deviation	p-value
Before	30	10.67	1.539	0.000
After	30	16.50	1.480	

Based on Table 2, the statistical test with the Paired T-test obtained a p-value of $0.000 < \alpha = 0.05$, which means H_0 is rejected, and H_1 is accepted, which means that there is an effect of health education on the knowledge of breast self-examination of class X female students of SMAN 10 Tangerang Regency before and after being given video media health education.

DISCUSSION

Based on the results of research at SMAN 10 Tangerang Regency, the knowledge of adolescent girls before health education using audio-visual video exposure was 10.67, with a standard deviation of 1539. Meanwhile, the average knowledge of adolescent girls after health education using audiovisuals increased to 15.60 with a standard deviation of 1480. So this shows that there is an increase in the knowledge of adolescent girls before and after being given health education using audiovisuals about breast self-examination (BSE).

Audiovisual media is an audiovisual aid, which means materials or tools used in learning situations to assist the written and spoken word in transmitting knowledge, attitudes, and ideas. Another definition of audiovisual is a set of tools that can project moving images and sound.

Combining image and sound forms the same character as the original object (Suryaningsih, et al 2019).

From this study, it is known that counseling with audiovisual media is able to increase the knowledge of adolescent girls about breast self-examination (BSE). This research is in line with the research of Budiarti et al. (2022), which shows that there is an increase in health education using audio-visual media on adolescent knowledge about BSE at SMAN 1 Garut, which is indicated by $P\text{-value} = 0.00 < 0.05$. Reviewing the results of the research obtained regarding the improvement of health education using audiovisual media with adolescent girls, they experienced an increase in knowledge.

According to the researcher's assumption, how to increase one's knowledge is by providing education through counseling and counseling with audiovisual media is one of the good media to do because audiovisual media is very effective in absorbing material, 87% involves the five senses of vision and 13% of the other five senses, so that counseling with audiovisual media affects the level of knowledge of adolescent girls about breast self-examination (BSE).

In the Paired T-Test, results obtained $p\text{-value} 0.000 < \alpha = 0.05$. Thus, it is said that increasing knowledge before and after providing health education using video media to class X students of SMAN 10 Tangerang Regency about breast self-examination (BSE) has an effect.

According to Fitri & Jamiati (2020), audiovisual media can stimulate hearing and vision to maximize the results obtained. These results can be achieved because the five senses most channel knowledge to the brain are the eyes (approximately 75% to 87%), while 13% to 25% of knowledge is obtained or channeled through other senses. The intervention in this study focuses on conducting education through audiovisual media that can stimulate hearing and vision so that what is obtained is maximized.

The results of this study are in line with the results of research conducted by Lestari et al (2019) based on the results obtained $p\text{ value} = 0.000 < \alpha$, which can be concluded that there is an effect of health education with audio visual media on the knowledge of adolescent girls about breast self-examination (BSE). Based on the assumptions of researchers, the use of counseling media with audiovisuals is well used to provide health education to adolescent girls because counseling with audiovisual media is able to increase the knowledge of adolescent girls about breast self-examination (BSE). So that it can detect the occurrence of breast cancer early.

CONCLUSION

There is an influence of education using audiovisual media on increasing knowledge of young women about breast self-examination. Audiovisual media is used to increase knowledge about breast self-examination (BSE) so that it can detect cervical cancer early. The use of audiovisual counseling media is very appropriate for providing health education to young women because it can increase young women's knowledge about breast self-examination.

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CONFLICT OF INTEREST

There is no conflict of interest in conducting this research.

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