

# The Effect of Booklets as Educational Media on Adolescent Women Knowledge About Breast Self Examination at High School Students

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## ABSTRACT

Background: Breast cancer is a malignancy that previously originated in glandular cells. Glandular ducts and the supporting tissues of the breast. Cancer can begin to grow in the breast glands or in the breast duct, fat tissue or tissue that binds to the breast. Early detection of breast cancer can be done with breast self examination, Clinical examination and mammogram examination. From the results of a preliminary study conducted on December 23, 2021 at State 1 Senior High School Randudongkal in Central Java. It was found that 7 students had been interviewed and the result were 4 out of 7 students at State 1 Senior High School Randudongkal for knowledge about breast self examination was still low or lacking and based on information obtained from the school that has never received counseling about breast self examinations. Objective: This research to identify the effect of booklets as educational media on adolescent womens knowledge about breast self examination in class x and xi at state 1 senior high school randudongkal. Method: This research was quantitative research using Quasi Experimental research design and One Group Pre-Test Post-Test Design. The sample in this study was 82 students of class X and XI of State 1 Senior High School Radudongkal for wichh were taken using the Slovin formula. The sampling technique used in this study was simple random sampling. Results: The results showed that the Wilcoxon test on the respondent's knowledge of breast cancer and the breast self examination showed that the calculated Z value was -7.830 and a significant value was 0.000. this shows that the significant value of 0.000 is less concluded that there is an effect on giving books as a medium for students knowledge of breast self examination. Conclusion: There is an affect of booklets as educational media on adolescent womens knowledge about breast self examination in grade x and xi at state 1 senior high school randudongkal.

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## 1. INTRODUCTION

Cancer or malignant tumor is uncontrolled cell/tissue growth that continues to grow/increase, immortal (cannot die). Breast is the number one place for cancer to grow in women (American Cancer Society, 2017; Ministry of Health, 2014). While breast cancer is a malignancy that previously originated from glandular cells, gland ducts and also the supporting tissues of the breast. Breast cancer is a malignant tumor that grows in a person's breast tissue. Cancer can begin to grow in the breast glands; it can also be in the breast ducts, fatty tissue or tissue that binds to the breast (Medicatore, 2011).

Breast cancer or breast cancer is a disease caused by cell growth, as a result of the presence of oncogenes that cause normal cells to become cancer cells in a person's breast tissue (Karsono, 2010). According to the Indonesian Cancer Foundation (YKI), one of the causes of the high number of cancer cases in Indonesia is environmental conditions that continue to produce carcinogens, such as cigarettes, processed meats and so on. Other causes that also affect the habit of staying up late, lack of exercise, and eating too much. The high rate of death from

breast cancer, especially in Indonesia, is due to the fact that the age of breast cancer sufferers is currently decreasing not only for women aged over 35 years but also has now penetrated at a younger age.

Data on the number of cancer sufferers worldwide reaches 14 million cases with a mortality rate of 8.2 million annually (WHO, 2018). Data from the Global Cancer Observatory states that there are 18.1 million new cases with the death rate also increasing to 9.6 million every year. From the data above, it can be concluded that breast cancer is one of the diseases that has a fairly high percentage of deaths, especially in women.

Early detection of breast cancer can be done with breast self-examination (BSE), clinical examination, and mammography examination. Early detection of breast cancer can be carried out by trained health personnel at a health facility called a clinical breast examination followed by a breast self-examination (BSE) in the right way. Efforts to detect breast cancer early are very important, because if breast cancer can be detected at an early stage and treated appropriately, it will get a fairly high cure rate (80-90%) and reduce mortality. Unfortunately, women who do BSE are still low because it is estimated that every 2 out of 10,000 women in the world will suffer from breast cancer (American Cancer Society, 2017; Ministry of Health 2009).

All women need to be given information about breast cancer and how to detect it, namely with BSE examinations from an early age so that they can provide education regarding breast cancer and ways to detect it to the social environment so that women are aware of the risks associated with the disease and the incidence of breast cancer. can be detected early so that the manifestations of cancer can be overcome. One way to increase the knowledge of young women about BSE examination is by doing health promotion (Alini & Indrawati, 2018).

From the results of a preliminary study conducted on December 23, 2021 at SMA Negeri 1 Randudongkal, it was found that 7 students had been interviewed and the results were 4 out of 7 students at SMA Negeri 1 Randudongkal for knowledge about breast self-examination (BSE) was still low or lacking and based on information obtained from the school that has never received counseling about BSE examinations. This lack of knowledge will result in them being too late to notice an abnormal lump in the breast. So, from the description above, the researcher is interested in researching "The Effect of Booklets as Educational Media on Adolescent Girls' Knowledge of Breast Self-Examination (BSE) in grade X and XI of SMA Negeri 1 Randudongkal".

## 2. RESEARCH METHOD

This type of research was quantitative research using Quasi Experimental research design and One Group Pre-Test-Post-Test Design. Researchers will measure the knowledge of respondents before and after counseling. This research begins with giving a pre-test before counseling. The sampling technique used in this study was simple random sampling.

The samples in this study were students of grade X and XI of SMA N 1 Randudongkal, amounting to 82, which were determined using the Slovin formula. The independent variable or independent variable in this study is Booklet as an Educational Media. The dependent variable or the dependent variable of this study is Knowledge of Young Women About Breast Self-Examination (BSE).

## 3. RESULT AND DISCUSSIONS

### 3.1. Univariat

Table 1. Frequency Distribution of 82 students in grade X and XI of SMA Negeri 1 Randudongkal

Characteristics of Respondents	n	%
<b>Age (years)</b>		
15	17	20,7
16	36	43,9
17	25	30,5
18	4	4,9
<b>Age of First Menstruation (years old)</b>		
11	5	6,1
12	27	32,9
13	24	29,3
14	23	28,0
15	3	3,7

Based on table 1 above, it is known that most of the respondents are age, 16 years 36 (43,9%) respondents, and have an Age of First Menstruation in 12 years old 27 (32,9%) of respondents.

Table 2. Student Knowledge Before and After being given Health Education Interventions with Booklet Media

Variable	Mean ± SD	Minimum	Maximum
Pre test	18.84±3.328	11	28
Post test	27.88±0.978	25	29

Based on table 2, the results of the analysis showed that the average knowledge of students about breast self-examination (BSE) before being given health education with booklet media was 18.84 with the lowest score of 11 and the highest score of 28 with a total score of 30 if the respondent could answer all questions correctly.

After the respondents were given health education using booklet media, the results of the analysis of the average knowledge of students were 27.88 with the lowest score of 25 and the highest score of 29. The data above shows that there is an increase in the smallest, largest, and average knowledge of respondents after being given health education about breast self-examination (BSE) using booklet media.

### 3.2. Bivariat

Table 3. Normality test of knowledge before and after being given health education

Knowledge Level	Kolmogorov-Smirnov	
	df	p-value
Before	82	0.000
After	82	0.000

Based on table 3, it shows The normality test above using the t-test test obtained a significant value of knowledge before being given health education with booklet media of 0.000 and after being given health education with booklet media of 0.000. Based on the information above, it can be concluded that the data before and after being given health education using booklet media were not normally distributed ( $p < 0.1$ ). The conclusion from the results of the normality test above shows that the study can use the Wilcoxon test.

**Table 4.** Distribution of the influence of knowledge about breast self-examination (BSE) before and after being given health education

Post test — pre test	
Z	-7,830
p-value	0.000

Based on table 4 above, the results of the Wilcoxon test on respondents' knowledge about breast cancer and BSE examinations show that the Z count value is -7.830 and a significant value is 0.000. This shows that the significant value of 0.000 is less than 0.1 (10% error rate), it can be concluded that there is an effect on giving booklets as a medium for students' knowledge of breast self-examination (BSE).

### 3.3 The effect of knowledge of breast self-examination (BSE) before and after being given health education

The data before and after being given health education using booklet media regarding knowledge of breast self-examination (BSE) in grade X and XI girls at SMA Negeri 1 Randudongkal obtained a p value of 0.000 ( $p < 0.1$ ). As shown in the table 2, the score before being given Health education has an average score of 18.84 from the total highest score. After being given health education with booklet media, there was an increase in the value of knowledge from the average value of 18.84 to 27.88.

This shows that health education with booklet media about breast self-examination (BSE) can increase respondents' knowledge. It is hoped that by increasing knowledge about breast self-examination (BSE) it can form behavior in preventing breast health problems. This is in accordance with the purpose of health education, namely the occurrence of changes in individual and group knowledge in fostering and maintaining healthy living behaviors and playing an active role in efforts to achieve optimal health degrees (Nursalam, 2013).

The increase in the number of respondents' knowledge after being given health education regarding breast self-examination (BSE) occurred due to several factors, one of which was information. Information obtained from mass media can affect a person's cognitive and effective function (Notoatmodjo, 2013). Information can be obtained from formal and non-formal education, for example through health education. Health education carried out in this study was using booklet media.

The selection of the health education method with this booklet media depends on one of the characteristics of adolescents, namely the emergence of curiosity about information. Usually information is obtained from books, magazines, tabloids, and even the internet. It can be seen that the book is one of the media that teenagers are interested in getting information. Therefore, the researchers chose booklets as a medium for education on BSE examinations. Booklets are arranged according to the needs and conditions of the youth themselves. Adolescents who are in secondary school have a great curiosity so that the material included in the booklet is applicable which can be practiced by teenagers.

This is in line with research conducted by Wanodya Puspitaningrum et al (2017) in Demak, who said that with print media, young women tend to be easier to understand about information content because the information contained in booklets can be studied by young women themselves. With the information in the form of a book accompanied by pictures and interesting material, then explained also by the researcher as a lecturer, it can increase the knowledge of young women.

This is in line with research conducted by Ulfiatun Hasanah et al in Probolinggo on high school students; this study increases the knowledge of young women about stunting. Before being given health education the average score was 1.99 while after being given health education the average score increased to 2.79.

## 4. CONCLUSION

From this study, it can be concluded that respondents were 82 girls in grade X and XI aged 15-18 years, dominated by 16-year-old students. The age of menarche occurred at the age of 11-14 years which was still within normal limits. However, there were 3 students who experienced menarche at the age of 15 years, namely 3 people.

Based on the result of the study, knowledge of students prior to health education regarding breast self-examination (BSE) was an average of 18.84 out of 30 questions with a standard deviation of 3,328.

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Knowledge of students after health education regarding breast self-examination (BSE) was an average of 27.88 with a standard deviation of 0.974. Finally, the researcher could say that there is an effect of booklet media on young women's knowledge about self-examination (BSE) ( $p < 0.1$ ).

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