



THE EFFECT OF KNOWLEDGE AND ATTITUDE OF ADOLESCENT FEMALES TOWARDS BREAST SELF-EXAMINATION (BSE) AT SMPN 22 BENGKULU CITY

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Abstract

One of the non-communicable diseases that has a major impact on women's health worldwide is cancer. WHO predicts the number of cancer patients in the world will continue to rise to 30.2 million cases by 2040. Of the 19.3 million cancer cases in the world, the most common disease is breast cancer as much as 11.7%. This study aims to determine the effect of knowledge and attitude of adolescent girls towards breast self-examination (BSE). The research design is a Quasy Experiment research design with One Group Pretest-Posttest Design. The research design is without a comparison group (control) with the pretest posttest group design approach method, namely research by giving a pretest (initial observation) The number of samples is 58 people taken by total sampling technique. The results of this study found that of the 58 adolescent girls, most were 14 years old (58.6%), did not have a history of breast cancer (100%) and were exposed to media information (32.8%). The mean knowledge before and after the intervention had different values, with the latter showing an increase after the intervention on knowledge. Based on bivariate analysis using the Wilcoxon test, there is an effect of BSE education in increasing adolescent girls' knowledge of BSE, with statistical test results p-value $0.000 < 0.05$ and attitude p-value $0.000 < 0.05$. There is an influence of external variables on breast self-examination (BSE), the variables that most influence breast self-examination (BSE) are knowledge and attitude with statistical test results < 0.05 .

Keyword : Health education, breast self-examination (BSE), knowledge and attitude

INTRODUCTION

Cancer is a significant non-communicable disease impacting women's health globally, has seen alarming statistics. According to the World Health Organization (WHO), in 2020 there were 19.3 million cancer cases worldwide, with a mortality rate of 10 million. The WHO projects that the number of cancer cases will rise to 30.2 million by 2040. Among the 19.3 million cases, breast cancer is the most prevalent, accounting for 11.7%. Data from the Global Burden of Cancer 2022 indicates that breast cancer cases globally reached 2,296,840 (23.8%), with a death rate of 666,103 (15.4%) (Globocan, 2022).

Presented at the 4th
Bengkulu International
Conference on Health
(B-ICON),
Bengkulu-Indonesia,
September 24-26th, 2024

Published:
December 31st, 2024
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ISSN: 2986-027X

Data from Global Burden Cancer (2022), shows In Indonesia, breast cancer cases are increasing with 66,271 (16.2%) cases with a mortality rate of 22,598 (9.3%) (Globocan, 2022). Considering the data from Bengkulu Province in 2023, the discovery of lumps or suspected breast cancer in women in Bengkulu City amounted to 141 cases and those who had experienced breast cancer were 42 cases of women who had breast cancer (Dinas Kesehatan Kota Bengkulu, 2023).

The incidence of breast cancer in adolescents is found in adolescents who suffer from FAM (Fibroadenoma Mammae), a benign tumor in the breast that usually occurs at a young age. The number of patients with FAM at the age of 15-24 years in 2014 there were 126 cases, there was a decrease in 2015 of 50 cases and in 2016 there was another decrease of 37 cases. Seeing these cases, it is very important to do early detection of breast cancer with breast self-care (BSE), especially in adolescents (Monica, 2021).

Breast cancer has a great chance of recovery if found at an early stage by doing early detection "Breast self-examination" or BSE is an early detection effort that can be done by every woman easily to find lumps or other abnormalities in the breast. However, until now women's awareness is still very low towards the practice of BSE, which is only about 25%-30% of women in the world who do BSE (Sarina et al., 2020). Knowledge of breast cancer includes familiarization with how to observe and feel one's own breasts, which is part of general body awareness and knowledge of what is normal (Wilensky, 2013). Often health problems found in adolescents are due to the lack of understanding of adolescents in dealing with all the changes that occur in their reproductive organs (Savitri et al., 2015).

It is claimed that attitude is an evaluative reaction. An evaluation process within the person who forms conclusions about the stimulus in the form of good-bad, positive-negative, or pleasant-unpleasant values is known as an evaluative response. These conclusions then crystallize as possible reactions to the attitude object (Azwar, 2015). Based on data from the Bengkulu City Health Office in 2023, there were 20 health centers among which there were 13 health centers that had lumps in women around their breasts in Bengkulu City. The first order of the highest presence of lumps in women is in the Bentiring Health Center area 11 (2.56%) (Dinas Kesehatan Kota Bengkulu, 2023).

Junior High School was chosen as the research location because early menarche is associated with an increased risk of breast cancer. It was found that at a younger age of menarche (12 years) there was an increased risk of breast cancer (Rasjidi, 2009). Based on previous research findings, it is concluded that the greatest risk of breast cancer in women at RSUD Dr. Soetomo in 2013 is the age of

menarche. The age of menarche that is too early, which is < 12 years proved to increase the risk of breast cancer in women at RSUD Dr. Soetomo in 2013 (Dewi & Hendrati, 2016).

Based on an initial survey conducted by interviewing 8 adolescent girls at SMPN 22 Bengkulu City, it was found that 2 of them had sufficient knowledge about breast cancer, 3 others performed BSE but did not routinely do it, 3 adolescents never did BSE. From based on the description above, the researcher wants to conduct research at SMPN 22 Bengkulu City in the Bentiring Health Center working area with the title "The Effect of Knowledge and Attitudes of Adolescent Girls Towards Breast Self Examination with BSE at SMPN 22 Bengkulu City in 2024". The general objective the purpose of this study was to ascertain how knowledge and attitude of adolescent girls towards breast self-examination (BSE) at SMPN 22 Bengkulu City.

MATERIALS AND METHODS

This type of research is a pre experimental design with one group pretest-posttest design. Research design without a comparison group (control) with a pretest posttest group design approach. The sample is part of the population selected in a certain way considered as a representation of the population or subject that has been determined. The sample of this study consisted of all students of adolescent girls. The sampling technique used in this study was the non-probability sampling method, and the sampling technique in this study is total sampling. Total sampling was used, involving all 58 adolescent girls from the target population. Measurement tools of knowledge is structured questionnaire with multiple-choice or closed-ended questions, with knowledge about BSE, breast cancer symptoms, and early detection methods. While measurement tools of attitude is likert scale questionnaire, with participants were asked to rate their level of agreement with statements about BSE practices and beliefs. Measurement methods is pretest and posttest design. Statistical analysis with wilcoxon test. Outcome interpretation is $p\text{-value} < 0.05$ indicated a significant improvement due to the intervention.

RESULTS AND DISCUSSION

Based on the results of research that has been carried out at SMPN 22 Bengkulu City, the data was processed univariately and bivariately: This analysis summarizes the distribution of key variables such as age, family history of breast cancer, and sources of information about breast self-examination (BSE). These variables are essential for understanding the background of the study population and their potential influence on the knowledge and attitudes toward BSE. Table 1 presents the univariate analysis of the participants' characteristics in the study.

Table 1 : Characteristics (Age, Breast Cancer History and Information Sources) of adolescent girls of SMPN 22 Bengkulu City

Variables	Frequency (n)	Presentase (%)
Age		
12	3	5.2
13	18	31
14	34	58.6
15	3	5.2
Total	58	100
Cancer History		
Available	0	0
None	58	100
Total	58	100
Source of Information		
School	11	19
Media	19	32.8
Health workers	5	8.6
Friends/neighbors or family	7	12.1
Not getting information	16	27.6
Total	58	100

Based on table 1, the results show that the distribution of adolescent girls aged out of 58 adolescent girls the most age is (58.6%) aged 14 years, a family history of breas cancer all adolescent girls have no history of cancer (100%), adolescent girls who get the most information on media (print / electronic) as many as 19 (32.8%) students.

Table 2 : Knowledge and Attitude of adolescent girls about breast self-examination (BSE) in SMPN 22 Bengkulu City

Variable	N	Min	Max	Mean	Mean Difference	SD
Knowledge						
Pre-test	58	25	85	51.81	17,24	13.530
Post-test	58	45	90	69.05		13.425
Attitude						
Pre-test	58	12	32	22.43	3.85	4.881
Post-test	58	21	35	26.28		2.972

Based on the table above adolescent girls before being given the intervention, the average value of knowledge is 51.81. After the intervention, the average knowledge of adolescent girls was 69.05. This shows that there is an increase in the average value of knowledge from the pre-test and post-test with an increase of 17.24. Based on the table of adolescent girls, the average value of the pre-test attitude is 22.43. Then for the average post-test attitude of adolescent girls is 26.28. This

demonstrates that there is a 3.85 increase in the average attitude value between the pre- and post-test.

Bivariate analysis using the normality test found that after one of the data was not normally distributed, the Wilcoxon test was carried out.

Table 3 : Effect of knowledge and attitude on breast self-examination (BSE) among adolescent girls in SMPN 22 Bengkulu City

Variable	N	Mean	Mean Difference	Standard Deviation	P-value
Knowledge					
Pre-test	58	14.17	16	13.530	0,000
Post-test	58	30.17		13.425	
Attitude					
Pre-test	58	20.00	8.24	4.881	0,000
Post-test	58	28.24		2.972	

Wilcoxon Test

Based on table 3, it shows that there is a difference with a value of $p = 0.000$ with a mean difference of 16. This means that it shows that knowledge about breast self-examination (BSE) in adolescent girls at SMPN 22 Bengkulu City has an effect based on the results of increasing knowledge 16 times. Besides that, it shows that there is a difference in attitude before and after the intervention with a value of $p = 0.000$ with a mean difference of 8.24. This means that the attitude towards breast self-examination (BSE) in adolescent girls of SMPN 22 Bengkulu City has increased. Based on the results of the pre-test and post-test values in adolescent girls, there is an opportunity to increase attitudes 8.24 times.

Table 4 : Effect of knowledge and attitude on breast self-examination (BSE) among adolescent girls at SMPN 22 Bengkulu City

Variables BSE	N	Mean	Standard Deviation	P-value
After Post-test	58	29.50	10.448	0,000

Wilcoxon Test

Based on table 4, the results of statistical tests can be concluded that there is an influence on the level of knowledge and attitudes towards breast self-examination (BSE) at SMPN 22 Bengkulu City in 2024, namely 58 adolescent girls are skilled in performing breast self-examination (BSE) with a significant value (2-tailed) < 0.05 so it can be concluded that H_0 is rejected.

Based on the results of the study, the age characteristics of adolescent girls who were the most numerous were 14-year-old students. Age is one of the elements that greatly affects knowledge. Age refers to the level of social, psychological, and physical development that affects learning. This

predicts that age has a role in information gathering that ultimately influences new knowledge, particularly with regard to BSE (Lilik hanifah,2017). According to the study findings, a mother has a greater chance of developing breast cancer if she has a sister with the disease (Mulyani, 2013).

Based on the results of research that has been conducted, adolescent girls who are exposed to the most sources of information are through the media (print or electronic) . The source of information is something that becomes an intermediary in conveying information, stimulating the mind and the ability of information obtained (Notoadmojo, 2018)

The statistical test results which indicates a significant difference between before and after the breast self-examination test (BSE). This indicates that there is a significant influence on the knowledge of adolescent girls on breast self-examination (BSE). These positive results are clarified by the results of statistical tests, show that students had good knowledge about breast self-examination (BSE).

The results of this study show positive results after the post-test. There is a significant difference before and after the pre-test and post-test of breast self-examination (BSE) so that it can be concluded that there is an influence before and after the pre-test and post-test on the attitude of adolescent girls about breast self-examination.

These results show positive results after the post-test, this is supported by the results of statistical tests which show that there is a significant difference before and after the pre-test and post-test of breast self-examination (BSE) so that it can be concluded that there is an influence before and after the pre-test and post-test on the attitude of adolescent girls about breast self-examination.

The results of this study are in line with the research of (Jarnelia Renita, Kurniyati, 2023), There is a p-value of 0.000 (<0.005), this states that there is a significant difference in the knowledge of breast self-examination of women of childbearing age with 22 respondents of childbearing age before and after giving the lecture method combined with leaflet media.

The results of this study are also in line with Selvita Br Barus (2019) obtaining a p-value of 0.031 (<0.05) there is a relationship between attitudes and behavior of breast self-examination (BSE), this shows that the attitude of adolescent girls considers or responds to BSE is not important to find out the presence of lumps or breast cancer (Barus, 2019)

The results of research that have been conducted on the effect of adolescent girls' knowledge on breast self-examination found that there is an effect on the knowledge of adolescent girls on breast self-examination (BSE) at SMPN 22 Bengkulu City. Based on research conducted by Selvita Br Barus (2019), regarding breast self-examination (BSE), the results show that there is a relationship between the knowledge of adolescent girls and the behavior of breast self-examination (BSE) (Barus, 2019).

Based on the results of research conducted by Rizka Angrainy (2017), there is a significant relationship between the knowledge of adolescent girls about BSE in early detection of breast cancer, along with the above statement where the results of the study found the majority had less knowledge about BSE. Researchers assume this may be related to the respondents' lack of interest in seeking information about breast cancer and how to check BSE and the lack of awareness of breast cancer (Angrainy, 2017).

The results of research that have been conducted on the effect of adolescent girls' attitudes towards breast self-examination found that there is an effect of attitude of adolescent girls towards breast self-examination (BSE) at SMPN 22 Bengkulu City. Based on Krisna's research (2023), it was found that there was a relationship between adolescent knowledge and BSE in school adolescents at SMP Negeri 11 Lebong in 2023. Respondents' knowledge in the good category will tend to have a positive attitude because they know about BSE so that they feel BSE is important to do to find out early any changes in the breast (Sugiyatno et al., 2021).

In line with the research of Yustina Oktarida (2019), which states that there is a significant relationship between the attitude of class IX adolescent girls towards BSE. There were 52 (34.7%) respondents who had a negative view of BSE and 98 (65.3%) respondents who had a good attitude towards this BSE (Oktarida, 2020).

CONCLUSION

Based on the results of research on the Effect of Knowledge and Attitudes of Adolescent Towards Breast Self Examination (BSE) at SMPN 22 Bengkulu City.

1. Characteristics of adolescent girls based on age are mostly 12-15 years old. The history of breast cancer in adolescent girls is mostly absent, the source of information is mostly obtained from the media.
2. Knowledge of adolescent girls before the intervention was in the category of less and enough but after the intervention was in the good category.
3. The attitude of adolescent girls before the intervention was categorized as less but after the intervention all adolescent girls had a good attitude.
4. There is an effect of knowledge and attitude of adolescent girls towards breast self-examination (BSE) with a p-value = 0.0000 (<0.05) this means that there is a significant difference, it can be concluded that there is an effect of knowledge and attitude of adolescent girls towards breast self-examination (BSE) at SMPN 22 Bengkulu City in 2024.

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