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ORIGINAL RESEARCH



# THE EFFECTIVENESS OF HEALTH EDUCATION ON KNOWLEDGE ABOUT BREAST SELF EXAMINATION IN WOMEN IN BENGKULU CITY, INDONESIA

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ABSTRACT	Keywords
Breast cancer is one of the causes of death in women. To reduce the death rate	
in breast cancer sufferers, early detection is necessary, which can be done	
through Breast Self Examination. Where BSE is the easiest way to do it, but	
there are still many women who don't know how to do BSE properly. The	
purpose of this study is to find out how health education affects women's	Health
knowledge of BSE as a means of early breast cancer screening in Bengkulu	Education,
City. This research method uses pre-experimental with one group pre-post test	Knowledge,
design. The population in this study were women aged 26-35 years with a total	<b>Breast Self</b>
sample of 86 people using purposive sampling technique. The results of the T	Examination
Test statistical test p value = $0.000$ , this shows that there is an influence of	
Health Education on women's level of knowledge about BSE. Health	
education can increase knowledge, so nurses need to carry out health	
education about BSE in early detection of breast cancer.	

## **INTRODUCTION**

Breast cancer is one of the most prevalent cancers in women across the globe, ranking second among cancers of disease and fifth in terms of cancer mortality among women (Bray et al., 2018). According to (Sung et al., 2021) the number of newly reported cases in 2020 amounted to approximately 2.3 million. Breast cancer holds the highest prevalence among all types of cancer in the Indonesian population (Azhar et al., 2020)

Globally, breast cancer is the leading cause of mortality for women. (Sarker et al., 2022). Indonesia is the nation with the greatest incidence of breast cancer cases in 2020, based on WHO data a serious issue.

Based on Globocan data for 2020, out of 396,914 new cases of cancer in Indonesia, 68,858 cases (16.6%) were of breast cancer. In that time, there had been almost 22,000 incidents of deaths. 70% are detected at an advanced stage. If we can detect it at an early stage, perhaps death can be prevented.

However, around 43% of deaths due to cancer can be defeated if patients regularly carry out early detection and avoid the risk factors that cause cancer. (Indonesian Ministry of Health 2022)

BSE is a tool for early detection of changes that occur in the breasts (Alshafie et al., 2024). Carrying out early detection can give a person the opportunity to increase life expectancy (Ştefănuţ & Vintilă, 2023)

In order to check for nodules, secretions, and changes in size, shape, texture, or color, women who participate in breast self-examination must be aware of how their healthy breasts feel and look. (National Breast Cancer Foundation, 2021)

The prognosis of BC is dependent on early detection and appropriate treatment; my patients' 5-year survival rate is 100% when they are in stage 0. The 5-year survival rates for patients with stage II and stage III breast cancer were 93% and 72%, respectively. However, the prognosis drastically deteriorates as the tumor progresses; just 22% of stage IV BC patients make it to the five-year point. (Alshafie et al., 2024)

According to research findings ((Gaw et al., 2020), most participants (57.4%) had a moderate degree of knowledge about British Columbia. The mass media is the main source of information about BSE (39.8%), although only 18% of respondents actually practice BSE, only 52.2% of respondents have thorough understanding of BSE, and 64.01% of respondents have a good opinion about BSE. Between general BSE knowledge and practice, there was a significant difference (P < 0.005). increased feeling of vulnerability, knowledge of breast health, and motivations for practicing breast self-examination all are statistically significantly different (P=0.0001) (Nisha & Murali, 2020).

Based on several research findings that indicate women's understanding of the execution of self-repair is still relatively low, increasing public awareness of the need for Breast Self Examination requires increasing knowledge through health education.

Based on data obtained from several previous research results, there is still low knowledge about breast cancer and the implementation of breast self-examination, this is supported by ((Yusuf et al., 2022) (Alshafie et al., 2024)

Health education is the process of modifying self-aware, positive habits in individuals, communities, or society at large in order to consistently and methodically maintain and improve health. (Pibriyanti & Ummah, 2020)

To increase women's knowledge about early detection of breast cancer, it is necessary to carry out health education so that women's knowledge increases and they carry out routine breast examinations.

#### **METHOD**

One group's pre-post test design is used in this quasi-experimental research approach. The research sample participants, totaling 86 people, were women aged 26 to 35 years who worked at the Sawah Lebar Community Health Center, Bengkulu City. The sampling technique uses purposive sampling technique. Inclusion criteria: willing to be a respondent, woman aged 26-35 years, taking Health Education to completion. Data collection used questionnaire about BSE knowledge. The data collection tool used is a questionnaire with 10 questions which will be given to respondents before and after implementation of Health Education. The post test was carried out 15 days after the health education was carried out. The results of data analysis used the T Test statistical test to determine the influence of Health Education on increasing knowledge about breast self-examination..

## **RESULTS**

Table 1. Frequency Distribution Based on Respondent Characteristics

r		
Characteristics of Respondents	Frequency	
Education	f	%
Middle School	11	12,8
High School	44	51,2
Bachelor's degree	31	36,0
Family History Of Breast		
Cancer		
No history of breast cancer	60	69,8
history of breast cancer	33	30,2
Marital Status		
Single	30	34,9
Widowed	3	3,5
Married	53	61,6

Based on table 1, there are 44 (51.2) with high school education, 60 (69.8%) with no history of breast cancer and 53 (61.6%) with marital status.

Table 3 Effect of Health Education on knowledge

Variable	Mean	SD	Difference	P
				Value
Before	5,7	1,19	5,709	
Knowledge				0,000
Knowledge	8,3	1,04	8,302	•
After				

Table 3 shows that knowledge levels were on average 5.7 before and 8.3 after health education. The T Test statistical test results, with a P Value of 0.000 < 0.05, indicate that health education has an impact on knowledge.

## **DISCUSSION**

The average knowledge before health education was 5.7, and the average knowledge after health education was 8.3,

based to research on the effect of health education on knowledge on BSE as an early detection of breast cancer. This shows how health education impacts knowledge.

The findings from this study illustrate that 66.8% of women do not know how to self-examine their breasts. This is in line with research(Kıssal & Kartal, 2019).

The study's findings indicate that there has been a shift in knowledge prior to and throughout health education. The scoring system for knowledge and response distribution is affected by the method and media of health education that are used, namely the demonstration method. According to the results of the study by (Anhar et al., 2020), after receiving health education about SADARI via phantom and demonstration methods, there was an increase in knowledge of around 15,67.

(Sarker et al., 2022) results, that indicate that educational interventions among Bangladeshi undergraduate female students resulted in significant changes in breast cancer knowledge and BSE behaviors, corroborate the findings of this study. The mean scores from the pre- and post-tests showed significant differences: breast cancer symptoms  $(2.99\pm1.05 \text{ vs.} 6.35\pm1.15; P < 0.001)$ 

The findings of (Sadoh et al., 2021) provide additional support for the research findings, as they indicate that 1337 and 1201 students, respectively, completed questionnaire before to and following instruction. Before training, the average BC knowledge score was low at  $(20.61 \pm 13.4)$ , however after training, it statistically increased to  $55.93 \pm 10.86$  (p<0.0001). With the exception of pre-peer training, most knowledge domains saw statistically significant gains (p 0.037-<0.001) following peer training. Merely 67 (4.8%) students out of 906 peers (67.8%) were aware of BSE. Following peer training, 1134 students (94.7%) knew noticeably more about BSE.

The relationship between education and BSE knowledge was shown to be bigger than the correlation between having a family history of cancer and BSE knowledge, putting it in line with the other results in India. (Malik et al., 2020)

The findings in this study showed that 65% said they had heard about breast self-examination, but only 38% had carried out BSE. This is in line with ((Dinegde et al., 2020)) Among the respondents studied, 88 (22.9%) had done BSE, but only 47 (13.1%) had done BSE correctly. Twenty-five (29.8%).

## **CONCLUSIONS**

Based on the results of this research, there is an influence of Health Education on knowledge where the average before is 5.7 and the average after is 8.3. Breast examination itself is an effort to detect breast cancer early. If breast examinations are carried out regularly, it can reduce the morbidity rate of breast cancer sufferers. However, there are still many women who do not know the technique of doing breast self-examination. Health education has a big influence on women's knowledge.

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