

# **BSE EDUCATION FOR ENHANCEMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE IN FEMALE SANTRI COTTAGE BOARDING SCHOOL DISTRICT DAWAR BOYOLALI**

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## **ABSTRACT**

The prevalence of breast cancer in the world has increased and most of the case was diagnose to be in the advanced stage. The lack of knowledge make the adolescent girls' willingness to detect the early occurrence of breast cancer symptoms were late. This cause by the absence of health education implemented of health workers at Dawar Muslim boarding school. The aim of this research was to analyze the effects of BSE education on knowledge, attitudes and practices of students at a muslim boarding school. Design of this research was a quasi experimental with non equivalent control group. The samples were 60 female santri. Paired t-test and wilcoxon test were used for statistical analysis in this research. The result showed that knowledge, attitudes and practices increased in the treatment group, and there were no differences in knowledge, attitudes and practices in control group. BSE education provided significant effect on knowledge and practice as well the attitude. The results showed that the eta squared for knowledge was 0,084, for attitude was 0,352 and for practice was 0,062.

Keywords: BSE education, Attitudes, Knowledge, Practice

## **INTRODUCTION**

Cancer is one of the leading causes of death worldwide. In 2012, about 8.2 million deaths caused by cancer (Kemenkes RI, 2015). WHO estimates that the incidence of cancer will increase to 15 million new cases in 2020 with the number 458 000 deaths per year (Asthon et al., 2009).

GLOBOCAN (IARC), an agency of WHO's cancer research in 2013, states that breast cancer has the highest percentage of new cases among all cancers. Number of breast cancer increased by 1.7 million from the previous 6.3 million women who have been diagnosed with breast cancer living in the last 5 years. Breast cancer is the most common cause of death in

women attributed to 522,000 deaths (WHO, 2013).

The Basic health Research and Development Agency Ministry of Health and Population Data Target, estimates the number of breast cancer are the highest in the Central Java province from 34 other provinces in Indonesia. Central Java Province occupies first with the estimated absolute number of 11.511 patients and 0.7 ‰ physician diagnosis of breast cancer (Kemenkes RI, 2015).

Boyolali District Health Office in 2013, found 75 cases of breast cancer in Boyolali. The incidence of breast cancer in Boyolali was increasing every year. Most women with breast cancer were detected in an advanced stage hence they did not

get the maximum handling (Dinas Kesehatan Kab.Boyolali, 2013).

WHO said that if a person diagnosed with early breast cancer, they will certainly needing an immediate action to prevent the spread of malignant cells to other parts of the body so that the death rate from breast cancer can be decreased.WHO mention that with the early detection of cancer, the effectiveness in reducing the numbers deaths from the disease and survival will be improved (WHO, 2005).

Preliminary studies conducted on female students at the boarding school of Dawar, showed that students never get health education, particularly regarding breast cancer. Health information was not received by the students at the boarding school. The purpose of this research was to provide health education on breast self-examination on knowledge, attitude and practice of students in boarding school of Dawar, Boyolali. Therefore the awareness of students to the threat of breast cancer might be increased.

## MATERIAL & METHODS

This research was a quasi experimental design with an experimental non equivalent control group design. This research examined the changes in the knowledge, attitudes and actions based on the treatment of female students in the form of health education about BSE. The sample was total sampling. From 66 people, 6 people were expelled because they did not complete the activities. Of the 60 female students, they were divided into 2 groups I (treatment group) and group II (control group). The treatment group received pretest, and posttest about health education two times (one time after a week of education and after education). While the control group only performed pretest and posttest only.

## RESULT

Table 1. Description of Knowledge Group I

Knowledge Category	Pre test		Post test I		Post test II	
	f	%	f	%	f	%
Poor	26	86.67	0	0	0	0
Moderate	3	10	12	40	12	40
Good	1	3.33	18	60	18	60

After getting the education intervention, student's knowledge increased.

Table 2. Description of Attitude Group I

Attitude Category	Pretest		Posttest I		Posttest II	
	f	%	f	%	f	%
Nosupport	0	0	0	0	0	0
Support	30	100	30	100	30	100

In the pre test, post test I and II, there was no change in the attitude of students, all students supporting BSE.

Table 3. Description of Practice Group I

Practice Category	Pre test		Post test I		Post test II	
	f	%	f	%	f	%
Poor	28	93.33	0	0	0	0
Good	2	6.67	30	100	30	100

Only 6.67% of students who were able to practice BSE correctly during pretest. After the education, the posttest I and II, all students were able to practice breast self-examination correctly.

Table 4. Description of Knowledge Group II

Knowledge Category	Pretest		Posttest	
	f	%	f	%
Poor	28	93,33	27	90
Moderate	2	6,67	3	10
Good	0	0	0	0

In the control group, on the pretest and posttest showed no significant change in the variable students knowledge about BSE. The majority of knowledge remained at poor category.

Table 5. Description of Attitude Group II

Attitude Category	Pretest		Posttest	
	f	%	f	%
No support	1	3.33	1	3.33
Support	29	96.67	29	96.67

Based on the pretest and posttest, the majority of students have attitudes that support the existence of BSE.

Table 6. Description of Practice Group II

Practice Category	Pretest		Posttest	
	f	%	f	%
Poor	30	100	30	100
Good	0	0	0	0

Based on the pretest and posttest, the practice of students about BSE 100% in the poor category.

Table 7. Statistical Tests of Knowledge gaps female students

Paired Samples Test Paired Differences				
		T	df	Sig. (2-tailed)
Pair 1	Pretest – Posttest I	-9.644	29	0.0001
Pair 2	Posttest I- Posttest II	-0.135	29	0.893
Pair 3	Pretest – Posttest (kontrol)	0.102	29	0.919

In paired samples test, based on the pre-test and post-test there was a difference between prior educational knowledge with BSE after their education.

Table 8. Statistical tests of Attitudes gaps female students

Paired Differences				
		T	df	Sig. (2-tailed)
Pair 1	Pretest – Posttest I	-3.302	29	0.003
Pair 2	Posttest I- Posttest II	0.611	29	0.542
Pair 3	Pretest – Posttest (kontrol)	-0.409	29	0.686

Only pretest-posttest 1 which show the differences between the attitude scores before education with education after BSE.

Table 9. Statistical test to Know the Differences before and after BSE

Test Statistics <sup>a</sup>			
	Pretest – Posttest I	Posttest I- Posttest II	Pretest – Posttest (kontrol)
Z	-4.821 <sup>b</sup>	-2.294 <sup>c</sup>	0.000 <sup>c</sup>
Asymp. Sig. (2-tailed)	0.0001	0.022	1.000

Based on pretest and posttest 1 and posttest 2 showed the differences in the practice of students about BSE.

Table 10. Eta squared test results

	Eta	Eta Squared
Pretest - Posttest of Knowledge	0.290	0.084
Pretest - Posttest of attitude	0.593	0.352
Pretest - Posttest Practice	0.250	0.062

Based on the magnitude of the effect proposed classification Pallant when  $> 0.06$  and a sufficient effect  $\geq 0.14$  great effect. The results of the analysis in this research note the eta squared test knowledge of 0,084, which means the effect was quite large. The attitude of the students showed that the results eta squared of 0.352 which indicated a big effect. The practice of students obtained eta squared value of 0.062, which means the effect was quite large.

## DISCUSSION

This study illustrates that to achieve behavior change toward healthy behavior in society is not easy. Facts prove that in developed countries despite many factors that hinder behavioral change due to inhibiting the form of infrastructure such as less supportive community healthy

behaviors (Mubarok et al., 2007). The purpose of health education to improve people's knowledge about BSE that would form positive attitudes that can be shown by the practice of BSE by the public. Notoatmodjo said the high level of knowledge tend to form positive attitudes reflected by behavior (Notoatmodjo, 2007).

Some studies suggest that education about breast cancer will increase awareness of early detection of breast cancer (Erbil et al., 2012; Nugraheni, 2010). Nugraheni's research results showed that the level of knowledge of BSE among midwifery good student. The entire student gets a thorough knowledge about breast cancer so that the awareness for the early detection of breast cancer was also high.

Research by Dewi expressed counseling on BSE as early detection of breast cancer was an effective strategy to increase student knowledge about BSE. Laras also stated that health education was an effective way in increasing the value of knowledge of the young women about breast self-examination, especially if supported by proven effective method, namely lectures and demonstrations (Permatasari, 2013; Pratama, 2014).

This research conducted at the boarding school of Dawar Boyolali districts showed that basically students have a supportive stance towards the BSE information. Education in the treatment group showed that 100% of students were supportive towards the BSE. Dian stated that an increase in the attitude of the respondent after counseling could be regarded as a powerful impetus to practice or behavior (Saptaningrum, 2013).

Their supportive attitude made students respond well to the practice of the BSE. Notoatmodjo said, an attitude of support has not materialized in an action automatically. In doing an action, one required supporting factor or a condition that allowed, among other facilities and

support factors are friends, family and other parties (Notoatmodjo, 2012).

Research showed that the counseling implemented was providing a significant influence on the increase of the BSE practice among female students. Aprilia research showed that there was significant change in the practice of the BSE among high school students of the Futuhiyyah High School, Demak after health education intervention with the lecture method (Hidayati, 2011).

Based on the eta squared test, health education intervention provides a large effect on the practice. First practice was a change in the behavior of an individual. It was not easy to rely on the commitment and support from the surrounding environment. This research showed that despite the very positive attitude of students towards the BSE it was not necessarily that the students could make the BSE as a healthy behavior. This was consistent with Ritha's research, which said that an automatic attitude has not materialized in an act (overt behavior). Changes in attitude becomes a real acts provided with the necessary supporting factor or a condition that allowed. Such supports may include facilities, support (support) of other parties (Melanie, 2016)

## CONCLUSIONS

The conclusion of this study were: 1) there was an increased knowledge, attitude and practice in the treatment group after the BSE education intervention; 2) there were differences in the knowledge, attitude and practice among the experiment groups. Whereas, the control group did not showed no significant differences; and 3) the effect size as shown in the eta squared was big enough on knowledge and practice, but not in the attitude.

It is suggested to the boarding school to provide some level of personal space for students to be able to perform

the BSE, as well as to revive the health posts boarding.

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