

Original Research Report

## Effect of Health Education Regarding Awareness Examination as Early Detection of Breast Cancer on the Knowledge and Attitude of Adolescent Women at the Medan Tuntungan Health Center

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**Abstract:** Breast cancer (Carsionama mammae) is cancer that originates from the glands, ducts and supporting tissues of the breast but does not include the skin of the breast. Breast cancer is the second most common cancer affecting Indonesian women and is the number one killer of women in the world (Mangan, 2005). The purpose of this study was to find the effect of education between health education regarding BSE examination and the knowledge and attitudes of young women at the Medan Tuntungan Health Center in 2020. The research method used was quasi-experimental. The population in this study were all young women who lived in the area of the Medan Tuntungan Health Center. Sampling technique with a total sampling of 34 people. The results of statistical tests using the Wilcoxon test, obtained p value = 0.025 (p value <0.05) meaning Ho is rejected, which means that there is an influence between the Health Department on adolescent attitudes about BSE examinations. It is hoped that adolescents can increase their knowledge about BSE examinations and be more concerned with their own health conditions so that they can detect cancer in themselves early.

**Keywords:** Breast Cancer, Breast Self-Examination, Teens.



## 1. Introduction

Breast cancer (*carcinoma mammae*) is cancer that originates from the glands, ducts and supporting tissues of the breast but does not include the skin of the breast. Breast cancer is the second most common cancer that attacks Indonesian women and is the number one killer of women in the world [1] [2] [3] [4] [5] [6].

Based on the results of a preliminary survey conducted by researchers on women in the working area of the Tuntungan Health Center by interviewing 10 students, it was found that there were 8 people who did not understand BSE examination and 2 people who understood BSE examination. So that the 10 students admitted that they had never practiced BSE so that the young women never did BSE examination.

## 2. Literature Review

In the Ministry of Health [7] according to WHO (2013), the incidence of cancer from 2008 to 2012 increased from 12.7 million cases to 14.2 million cases. Cancer is the number 2 cause of death in the world after cardiovascular disease. In 2030 it is estimated that the incidence of cancer will increase to reach 26 million people and as many as 17 million people will die from cancer. Of the various types of cancer in Indonesia, breast cancer ranks first based on data from Globocan with the number of new cases reaching 58,256 cases in 2018. According to the Basic Health Research [8], the incidence of breast cancer in Indonesia is estimated at 61,682 people. Young age does not guarantee safety from breast cancer and the risk of breast cancer increases with age [9] [10]. One of the prevention of breast cancer is breast self-examination (BSE). Apart from mammography, breast self-examination (BSE) is an efficient and effective way to detect breast cancer. Many breast cancer patients with advanced stage conditions just come to the hospital to check because the patient does not feel any changes in the condition of their breasts [11].

To find out the signs of breast cancer at an earlier stage (down staging), a breast self-examination (BSE) is performed [12]. BSE examination helps women performing an independent examination without paying for an examination, can increase awareness and alertness of an abnormal lump in the breast. Lack of motivation and feelings of fear when after doing BSE, it turns out that women find an abnormal lump in their breasts are the reasons why women don't do BSE. If an abnormal lump is found in the breast, it helps a woman get treatment as soon as possible before the cancer becomes an advanced stage [13].

## 3. Methods

This study uses a quasi-experimental research design. with this research design model using one group pretest - post test, namely by giving a pretest (initial observation) before being given an intervention, after being given an intervention, then a posttest (final observation) [14] [15] [16] The study population was all young women who lived in the working area of the Medan Tuntungan Health Center. Sampling is done by using total sampling

## 4. Result and Discussion

Based on Table 1, Table 2 and Table 3, the level of knowledge of respondents about BSE examination at the Medan Tuntungan Public Health Center was found in the pre-test the majority were in the sufficient category as many as 18 (52.9%) and the minority in the knowledge with less category as many as 2 people.

Table 1. Frequency Distribution of Respondents' Knowledge before and after Giving the Intervention

Pre Test				Post Test			
No	Knowledge	f	%	No	Knowledge	f	%
1	Good	14	41,2	1	Good	23	67,6
2	Adequate	18	52,9	2	Adequate	11	32,4
3	Low	2	5,9	3	Low	0	0
Total		34	100	Total		34	100

Table 2. Frequency Distribution of Adolescent Attitudes about BSE Examination in the Working Area of the Medan Tuntungan Health Center before and after the Intervention

Pre Test				Post Test			
No	Attitude	(f)	(%)	No	Attitude	(f)	(%)
1	Good	18	52,9	1	Good	23	67,6
2	Adequate	16	47,1	2	Adequate	11	32,4
Total		34	100	Total		34	100

Table 3. The Effect of Health Education on BSE Examination on Adolescent Knowledge at the Medan Tuntungan Health Center before and after the Intervention

Category	Mean	P Value
Knowledge	Pre Test	0.00
	Post Test	5.50
Attitude	Pre Tes	0.00
	Post Test	3.00

The results of statistical tests using the Wilcoxon test, obtained p value = 0.025 (p value <0.05) meaning Ho is rejected, which means that there is an influence between the Health Department on adolescent attitudes about BSE examinations.

#### 4.1. Respondent's Knowledge before and after the Intervention

According to the researcher's assumption, this can be felt reasonable because the teenagers have not been touched with information related to BSE examinations for themselves. Limited information causes their knowledge to be limited so they do not know about it. The information provided can vary in nature and there are many factors that support the increase in the knowledge of adolescents themselves about BSE examinations.

This is in line with Muliana's research on the effect of health education on the knowledge and attitudes of respondents. The results of this study showed that in the pre-test the knowledge of the respondents was categorized as poor, namely 73.8%.

#### 4.2. Adolescent Attitudes about BSE Examination in the Working Area of the MedanTuntungan Health Center before and After the Intervention

According to the researcher's assumptions, adolescent attitudes were obtained both before the provision of health education because they had positively received the form of information, but they had not yet put it into a more tangible form so that they had not shown significant changes in action. Still from the research conducted by Muliana, it was found that the results of the study showed that the attitude of adolescents at the time the pre-test was carried out was in the unfavorable category, which was 84.6%.

The results of the research conducted by Dewi [17] regarding the level of anxiety of the husband towards his wife who underwent Sectio Caesarea delivery in the delivery room of RSUD 45 Kuningan used an observational research design with consecutive sampling technique and analysis of univariate and bivariate data with a 2-mean difference test, namely the t-test shows that husbands and wives who give birth by sectio caesarea have a level of anxiety that is included in the very anxious category with

a score of (78.88). The husband's high level of anxiety when waiting for his wife undergoing section caesarea delivery was caused by not providing health education by nurses, causing the husband's ignorance of the delivery process. This ignorance causes the husband's feelings of anxiety to be very high. From the results of the research above, it is necessary to improve the quality of service in hospitals and increase the ability of health workers, especially midwives, in conducting communication and counseling more optimally so that it can cause positive psychological effects and a sense of calm for the companion (husband).

According to the researcher's assumption, this occurs because of an increase in knowledge after the provision of health education about BSE examination so that it will affect the attitude of the respondents themselves to determine what actions they will take. This is indicated by the attitude of the respondents in the good category which increased from before and after the health education was given. Mulyana's research got the results after the post test was carried out, the result was an increase in attitude to being good with a percentage of 90.8%.

#### **4.3. The Effect of Health Education on BSE Examination on Adolescent Knowledge at the Medan Tuntungan Health Center Before and After the Intervention was given**

The results of statistical tests using the Wilcoxon test, obtained p value = 0.002 (p value < 0.05) meaning  $H_0$  is rejected, which means that there is an influence between the Health Department on adolescent knowledge about BSE examinations. According to the researcher's assumption, the provision of health education is one way to transfer information from one person to another by giving lectures and others. When the information transfer process occurs, there is a process that takes place within the recipient of the information. The knowledge of the recipient of information will increase with something that is still considered new so that it will increase the recipient's knowledge of a phenomenon.

According to Mulyana's research, there is an influence between the two variables, namely between health education and knowledge. According to the researcher's assumption, the effect of the health education on attitude change occurs because of the adaptation process within the recipient of the information, in this case, the adolescent regarding BSE examination. The adaptation process will form an attitude within the individual to then be carried out into a real action. According to Mulyana's research, there is an influence between the two variables, namely health education and knowledge.

#### **5. Conclusion**

From the discussion and the results of the statistical analysis carried out, conclusions and suggestions can be drawn as follows: Health education has an important effect on increasing respondents' knowledge and attitudes about BSE examinations, Respondents' level of knowledge about BSE examinations in Medan The gains obtained in the pre-test are the majority in the quite good category as much as 18 people (52.9%) while in the post-test the majority were in the good category as many as 23 people (67.6%). Respondents' attitudes about BSE examinations at the Medan Tuntungan Health Center in the pre-test showed that the majority had good attitudes as many as 18 people (52, 9%). Adolescent attitudes about BSE examination in the post test showed the majority results were in the good category, namely 23 people (67.6%) and the minority category was sufficient 11 people (32.4%) with the results of the Wilcoxon test statistical test obtained p value = 0.025 (p value < 0.05) means  $H_0$  is rejected, meaning that there is an influence between the health education provider on adolescent attitudes about education BSE examination. Medan Tuntungan District. Most of the respondents in this study had the act of working mothers in exclusive breastfeeding in the no category, which was 65.6% or 21 people.

The dual role conflict of working mothers in the Baru Ladang Bambu Village, Medan Tuntungan District shows that the level of conflict in the dual role of working mothers in the Baru Ladang Bambu Village, Medan Tuntungan District. In the category. There is a dual role conflict 27 people with a high percentage of 84.4%. From the statistical test between the dual role conflict of working mothers and the action of exclusive breastfeeding in the Baru Ladang Bambu Village, Medan Tuntungan District. The correlation coefficient or r value is -0.420, the probability is 0.020 with a 95% confidence level where p < 0.05. This means that there is a relationship between the dual role conflict of working mothers and the action of exclusive breastfeeding in the Baru Ladang Bambu Village, Medan Tuntungan District so that the resulting working hypothesis is accepted.

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