

Implementation of Health Education Counseling on Breast Self-Examination (BSE) with Android Media on Breast Cancer Prevention Behavior in Balikpapan

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ABSTRACT

Breast cancer is a frightening disease for women. The prevalence of breast cancer in Indonesia is 109 per 100,000 population. The most cancer in East Kalimantan in 2014 was breast cancer with 179 people and in 2015 it rose to 424 people, this case experienced an increase of 56.28%. The aim of the researchers was to implement breast self-examination health education counseling (BSE) with Android media on breast cancer prevention behavior in Balikpapan. This research method is a quasi-experimental study with a one-group pre-test and post-test design. The sample in this study was 2 groups of cadres totaling 50 people, each 25 people in the control group and 25 in the intervention group with ages 18-55 years. The results of the study showed an increase in knowledge (good 48%, enough 40%, less 12%) and increased behavior about BSE (good 44%, enough 48%, less 8%), there was a difference in knowledge before and after being given BSE counseling using android media (p -value = 0.362). There are differences in behavior before and after being given the BSE counseling treatment using Android media (p -value = 0.607). Conclusion: Providing counseling using Android media provides better benefits.

Keywords: Android Media Extension, Behavior, BSE, Knowledge.

INTRODUCTION

Breast cancer is a frightening disease for women. Although now there is the best treatment, but the fight against breast cancer is not always successful. This is because there is still a lack of attention from women in understanding breast cancer in order to avoid breast cancer and how to detect it early (Setiati, 2009).

According to (WHO, 2008), the prevalence of breast cancer in Indonesia is 109 per 100,000 population (Kartika Adyani et al., 2022). In Indonesia, breast cancer is the second most common cancer suffered by women after cancer of the mouth or cervix. Breast cancer is the most feared disorder, generally, women who attack are over 40 years old, however, young people can get this cancer (Mardiana, 2009).

Based on data from the East Kalimantan Provincial Health Office (2016), the most common cancer in East Kalimantan in 2014 was breast cancer with 179 people, and in 2015 it rose to 424 people, this case experienced an increase of 56.28%. (Bisnis.com, 2016). One of the causes, many patients come for treatment at an advanced stage, this is due to a lack of awareness for early detection of breast cancer (Hayati et al., 2023).

The level of public awareness is still lacking and there are erroneous myths about breast cancer that cause delays in breast cancer treatment, providing information about breast cancer with appropriate promotional and preventive methods in implementation is a strategic step in an effort to improve public health and knowledge so that women are able early detection of breast cancer (Oryza, 2022).

This early detection can be done by means of breast self-examination (BSE). This prevention is the most possible early detection intervention and has many advantages including being easy and practical. If BSE is done routinely and periodically, breast cancer can be detected early so that further treatment can be obtained more quickly and accurately. However, the BSE examination has not received much attention, many people do not even know about it (Dianada, 2009).

According to the results of Dewilestianingrum's research (2013), regarding breast self-examination in young women at SMK Negeri I Badegan, Ponorogo Regency, 7 respondents (6.5%) had good knowledge of BSE and 57

respondents (53.3%) had sufficient knowledge and less as many as 43 respondents (40.2%).

One of the efforts to introduce and increase public knowledge about BSE is through health education outreach activities. Health education counseling is an educational activity carried out by disseminating information or messages conveyed, so that people are aware, believe, and want to do it. To achieve maximum results, it is necessary to use appropriate counseling methods and media according to the objectives of the counseling. One of the extension media used is Android, a form of audio-visual media (Adimuntja et al., 2022).

Muara Rapak Health Center in Balikpapan is a health center that provides health services to the community, but the services provided are mostly curative and preventive services that still receive more attention. This is because there are still people or cadres who do not know about or receive health education about breast self-examination (BSE) for early detection of breast cancer (Hayati et al., 2023).

Health education should be provided to the community, groups, and individuals, through health workers and cadres who can assist the community around their environment, but this is rarely done, especially regarding examinations (BSE) because the readiness of cadres or health workers is still lacking. Therefore researchers are interested in conducting research with the title Implementation of providing health education counseling on self-breast examination (BSE) to cadres using android media on breast cancer prevention behavior in cadres at the Muara Rapak Health Center, Balikpapan (Muchtari et al., 2021).

METHODS

This research is a quasi-experimental study with a one-group pre-test and post-test design. The research subjects were women of reproductive age (18-45 years) in the PKM Muara Rapak area using survey and observation data. The total number of subjects is 50 respondents. The use of android media that combines audio and visual or combines visual media and hearing media. So that the more the five senses are used, the stronger and clearer the knowledge and information obtained for the implementation of

providing health education counseling on self-breast examination (BSE) to cadres on breast cancer prevention behavior at the Muara Rapak Health Center, Balikpapan. Data collection was obtained through a questionnaire given to respondents using a data collection technique in the form of a questionnaire. This questionnaire was carried out by circulating a list of questions and a questionnaire form as a form of instrument. Submitted in writing to the respondent to provide feedback, information and answers. Subjects filled out informed consent as a form of their willingness to participate in the study. Sampling technique with Random Sampling. The inclusion criteria in this study were women of reproductive age and still menstruating, willing to be respondents. Exclusion criteria in this study were women who had no menstruation, menopause, and consumers who did not participate in counseling activities. The analysis used in this study is univariate analysis and bivariate analysis. Univariate analysis aims to explain or describe the characteristics of each research variable, while bivariate analysis aims to determine the relationship between the two variables, namely the dependent variable and the independent variable. The dependent variable is internal factors (perception, motivation, intelligence, and knowledge) and external factors (environment). The independent variable is health education and the factors that influence it. This research has received ethical approval No. LB.02.01/7.1/2735/2019 from the Poltekkes Kemenkes Kaltim.

RESULTS AND DISCUSSION

The characteristics of the total majority of these 50 subjects show that the majority of respondents were aged 20-35 years 76%, with a junior high school education level of 36%.

Table 1. Respondent characteristics.

No	Respondent Characteristics		N = 50	
			Total	%
1	Age			
	a	20 - 35 years	38	76
	b	36 - 50 years	12	24
Total			50	100
2	Education			
	a	Elementary School	7	14
	b	Junior High School	17	34
	c	Senior High School	18	36
	d	University	8	16
Total			50	100

From the results of the univariant analysis it was found that the knowledge of cadres in the PKM Muara Rapak area before being given health education about the BSE examination was mostly in the good category, namely 11 respondents (44%) and after being given health education about BSE examination, the frequency of the good

category was 14 respondents (56%). This proves that there is an increase in results after the counseling is carried out, which means that the respondents who were given the counseling questionnaire listened to, followed, and paid attention to the counseling given properly.

Table 2. Univariant analysis results.

Knowledge	Before		After	
	Frequency	Percent	Frequency	Percent
Less	8	32	3	12
Enough	6	24	8	32
Good	11	44	14	56
Total	25	100	25	100

It is known that the behavior of cadres in the PKM Muara Rapak area before being given health counseling about the BSE examination was mostly in the good category, namely, 3 respondents (12%) and after being given health education about the BSE examination the frequency of the

good category remained with 3 respondents (12%). Knowledge Results of Pre and Post-Health Intervention Groups. It can be said that the respondents did not pay too much attention to the counseling given.

Table 3. The behavior of non-control group cadres regarding BSE examination before and after health counseling in public health service Muara Rapak Balikpapan.

Behavior	Before		After	
	Frequency	Percent	Frequency	Percent
Less	4	16	7	28
Enough	18	72	15	60
Good	3	12	3	12
Total	25	100	25	100

It is known that the knowledge of cadres in the PKM Muara Rapak area before being given health counseling about BSE examination was mostly in the good category, namely 6 respondents (24%) and after being given health education about

BSE examination, the frequency of the good category increased by 12 respondents (48%). This proves that there is an increase in results after the counseling is carried out, which means that the respondents who were given the counseling questionnaire listened to, followed, and

paid attention to the counseling given properly.

Table 4. Knowledge of control group cadres about BSE examination before and after health counseling in public health service Muara Rapak Balikpapan.

Knowledge	Before		After	
	Frequency	Percent	Frequency	Percent
Less	13	52	3	12
Enough	6	24	10	40
Good	6	24	12	48
Total	25	100	25	100

It is known that the knowledge of cadres in the PKM Muara Rapak area before being given health education about the BSE examination was mostly in the good category, namely 2 respondents (8%), and after being given health education about the BSE examination, the frequency of the good category increased by 11 respondents

(44%). This proves that there is an increase in results after the counseling is carried out, which means that the respondents who were given the counseling questionnaire listened to, followed, and paid attention to the counseling given properly.

Table 5. The behavior of intervention group cadres regarding BSE examination before and after health counseling in public health service Muara Rapak Balikpapan.

Behavior	Before		After	
	Frequency	Percent	Frequency	Percent
Less	6	24	2	8
Enough	17	68	12	48
Good	2	8	11	44
Total	25	100	25	100

From the results of the bivariate analysis, the results of the McNemar test obtained p value = 0.362, thus the p-value is greater than alpha (5%) so that Ho is

accepted, meaning that there is no effect on differences in knowledge about BSE examination before and after.

Table 6. Knowledge of non-intervention group Pre-test and Post-test cadres about BSE examination in public health service Muara Rapak Balikpapan.

		After Knowledge				p-value
		Less	Enough	Good	Total	
Before Knowledge	Less	1	1	6	8	0,362
	Enough	0	4	2	6	
	Good	2	3	6	11	
	Total	3	8	14	25	

It is known that the results of the McNemar test obtained a p-value = 0.607, thus the p-value is greater than alpha (5%) so Ho is accepted, meaning that there is no effect on differences in behavior regarding

BSE examinations before and after. Because this group was not given a supporting Android application regarding the BSE examination.

Table 7. The behavior of control group Pre-test and Post-test cadres about BSE examination in public health service Muara Rapak Balikpapan

		After Behaviour				p-value
		Less	Enough	Good	Total	
Before Behavior	Less	1	3	0	4	0,607
	Enough	6	10	2	18	
	Good	0	2	1	3	
	Total	7	15	3	25	

It is known that the McNemar test results obtained p value = 0.008, thus the p-value is smaller than alpha (5%) so Ho is

rejected, meaning there is an influence on differences in knowledge about BSE examination before and after.

Table 8. Knowledge of intervention group Pre-test and Post-test cadres about BSE examination in public health service Muara Rapak Balikpapan.

		After Knowledge				p-value
		Less	Enough	Good	Total	
Before Knowledge	Less	2	7	4	13	0,008
	Enough	0	3	3	6	
	Good	1	0	5	6	
	Total	3	10	12	25	

It is known that the results of the McNemar test obtained a p-value = 0.022, thus the p-value is smaller than alpha (5%) so Ho is rejected, meaning there is an

influence on differences in behavior regarding BSE examination before and after.

Table 9. The behavior of cadres Pre-test and Post-test intervention groups regarding BSE examination in public health service Muara Rapak Balikpapan.

		After Behaviour				p-value
		Less	Enough	Good	Total	
Before Behavior	Less	1	0	5	6	0,022
	Enough	0	12	5	17	
	Good	1	0	1	2	
	Total	2	12	11	25	

The results of this study are in line with research conducted by Bale, et al (2017) the ability to perform BSE before being given treatment was in the bad category, namely 43 people (100%) and after being given treatment, it was included in the good category, namely 17 people (39.5%). The results of statistical testing showed that there was an effect of BSE health counseling on the ability to perform BSE with a significant value of 0.000.

This study was also supported by research by (Hayati et al., 2023), that the results showed that there were differences in changes in knowledge in the experimental group with a mean (49.22) greater than in the control group I (17.36),

(p = 0.000) and for changes in attitude in the experimental group (33.46) was greater than in the control group (25.94), (p = 0.000) so that there was a significant difference in health education using videos in BSE on increasing knowledge and attitudes in young women (Kartika Adyani et al., 2022).

According to (Nanda, et al, 2015) reveals changes in knowledge can be influenced by certain factors, some of which are education, mass media, socio-cultural, and economic, environment, experience and age. Researchers assume that BSE counseling with android media provides changes in increased knowledge of respondents which in the end results in changes in behavior, especially breast

cancer prevention behavior. Health promotion media is one of the means or efforts that can be used to display health messages or information to be conveyed to the public so that they can increase their knowledge which is ultimately expected to change their behavior in a positive direction or support health (Inayah et al., 2023).

According to the Information Technology Law, information is a technique for collecting, preparing, storing, manipulating, announcing, analyzing, and disseminating information with a specific purpose. Information obtained, both formal and non-formal, can have a short-term effect resulting in a change or increase in knowledge. This is consistent with what happened to cadres at PMK Muara Rapak Balikpapan, that health education about BSE is information obtained informally but is able to increase this knowledge. Another source that influences the knowledge of respondents is that the majority of respondents often access health information, including information about BSE through the Internet (Kartika Adyaniet al., 2022).

CONCLUSION

The results of this study were an increase in knowledge and behavior about BSE after being given BSE counseling using Android media, the results of the analysis showed that there were differences in knowledge and behavior before and after being given BSE counseling using android media.

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