



Media booklet improve the attitude and practice of breast self-examination as early detection of breast cancer in female students

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ABSTRACT

Breast cancer is one of the main causes of death in women in Indonesia. Early detection is very important to reduce mortality from breast cancer. Early detection as an effort to prevent cancer is important. How to prevent cancer by providing education in the treatment of cancer from an early age. One of the early detection of breast cancer is Breast Self Examination (Sadari). Early detection of breast cancer needs to be done from a young age. Utilization of breast self-examination media as an important resource to increase public awareness. Lack of knowledge and practice regarding breast self-examination in female students is a problem. Utilization of breast self-examination media as an important resource to increase public awareness. This study aims to determine the effect of booklets on improving the attitude and practice of breast self-examination in female students. The design of this study used a quasi-experimental with a randomized pre-test and post-test control group design. The population of this study was 292 Level I Campus VII students and a sample of 72 respondents used cluster sampling of female students in 3 groups (without media, leaflets and booklets). Data were collected using a questionnaire instrument and observation of breast self-examination practices, with a paired test to determine differences in media use. There were significant differences regarding the knowledge, attitudes and practices of breast self-examination between before and after the booklet media intervention. There is a differencesignificant mean on attitudes and practices towards BSE by giving booklets. It is recommended to use booklet media to improve breast self-examination skills in adolescents.

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ABSTRAK

Deteksi dini sangat penting menurunkan angka kematian akibat kanker payudara. Deteksi dini sebagai upaya pencegahan kanker merupakan hal yang penting. Cara pencegahan kanker dengan cara memberikan edukasi dalam penanganan kanker sejak dini. Salah satu deteksi dini kanker payudara dengan Pemeriksaan Payudara Sendiri (Sadari). Kegiatan deteksi dini kanker payudara perlu dilakukan sejak usia remaja. Pemanfaatan media pemeriksaan payudara sendiri sebagai sumber penting untuk meningkatkan kesadaran masyarakat. Kurangnya pengetahuan dan praktik tentang pemeriksaan payudara sendiri pada mahasiswi menjadi permasalahan. Pemanfaatan media pemeriksaan payudara sendiri sebagai sumber penting untuk meningkatkan kesadaran masyarakat. penelitian ini bertujuan untuk mengetahui pengaruh booklet terhadap peningkatan sikap dan praktik pemeriksaan payudara sendiri pada mahasiswi. Desain penelitian ini menggunakan quasi eksperiment dengan randomized pre-test and post test control group design. Populasi penelitian ini 292 mahasiswi Tingkat I Kampus VII dan sampel 72 responden menggunakan

cluster sampling mahasisiwi dalam 3 kelompok (tanpa media, leaflet dan booklet). Pengambilan data menggunakan instrumen kuesioner dan observasi praktik pemeriksaan payudara sendiri, dengan uji paired test untuk mengetahui perbedaan penggunaan media. Terdapat perbedaan yang bermakna tentang pengetahuan, sikap dan praktik pemeriksaan payudara sendiri antara sebelum dan sesudah dilakukan intervensi dengan media booklet. Ada perbedaan mean yang signifikan pada sikap maupun praktik terhadap BSE dengan pemberian booklet. Disarankan pemanfaatan media booklet untuk meningkatkan ketrampilan pemeriksaan payudara sendiri pada remaja.

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INTRODUCTION

Breast cancer and cervical cancer are the most common types of cancer found in Indonesian women. Data from the Dharmais Cancer Hospital in 2018 showed that the most cases of cancer were breast cancer at 19.18%, cervical cancer at 10.69%, and lung cancer at 9.89%. Types of cancer that only occur in women, namely breast and cervix are the biggest contributors of all types of cancer (Ministry of Health RI, 2019). According to the World Cancer Prevention Organization and the World Health Organization (WHO), it is estimated that there will be an increase in the incidence of cancer in the world by 300 percent in 2030, and the majority will occur in developing countries including Indonesia. According to data from the Global Burden of Cancer Study (Globocan) the number of cancer patients in Indonesia in 2020 was 396,914. Based on data from the Indonesian Ministry of Health, cases of breast cancer were found in women. Breast cancer still ranks first, followed by cervical cancer. Breast cancer and cervical cancer are the highest cancers that occur in women in Indonesia.

Women should know the normal state of the breasts so they can be aware if there are changes. Therefore, efforts to prevent non-communicable diseases, in this case breast cancer, are needed. The main prevention efforts are to prevent and prevent the public from being exposed to risk factors for breast cancer, followed by the implementation of early detection and screening (Kurniasih et al., 2022).

Early detection of breast cancer is carried out in the target group of women 20 years and over, but the priority for the early detection program in Indonesia is in women aged 30-50 years with a target of 50% of women until 2019. Early detection of breast cancer is carried out by clinical breast examination (Sadanis), namely breast examination by health workers and teach clients to do breast self-examination (BSE) every month (Ministry of Health RI, 2015). Breast Self Examination is a technique where a woman examines her own breasts by looking and feeling with her fingers to detect breast lumps. Breast self-examination aims to improve breast recognition, detect lumps in the breast early and look for abnormal changes in the breast (Akpanekpo, 2017). Mexican health standards recommend breast self-examination starting at the age of 20 to increase women's awareness about breast cancer, help gain better knowledge and identify any changes or abnormalities to seek appropriate medical treatment (Juárez-García, García-Solís and Téllez, 2020).

According to Skinner (1938) states closed behavioral responses are in the form of knowledge and attitudes while open behavioral responses are in the form of practice (Myint, Nursalam and Mar'ah Has, 2020). Several studies have shown

that students have good knowledge of BSE. However, few of the students do BSE regularly. Among Emirati students, 68.5% of participants know about BSE, but only a few participants actually do BSE (Abo Al-Shiekh, Ibrahim and Alajerami, 2021). Early detection of breast cancer with the BSE method is included in the category of disease prevention measures. The practice of BSE is the act of feeling the breasts every month, carried out after menstruation, to detect breast abnormalities (Udoh et al., 2020). The results of the study show that the more routine BSE is, the more delays in carrying out initial breast cancer examinations to health services. People who have never done BSE have 11.08 times the risk and people who don't routinely or rarely do BSE have 5.18 times the risk of experiencing delays in carrying out initial breast cancer checks to health services compared to people who routinely carry out early detection of BSE every month (Dyanti and Suariyani, 2016).

The results of other studies show that most nursing students do not do BSE, this is an obstacle in the screening program and early diagnosis of breast cancer. Therefore, a more intensive BSE awareness program is urgently needed among university students. Utilization of breast self-examination media as an important resource to raise awareness among the public (Ayed et al., 2015). Educational institutions can provide support and motivation for health students to carry out routine breast self-examination as an effort to detect early breast cancer (Wulansari et al., 2022). Based on interviews with female students at Campus VII Poltekkes Kemenkes Semarang showed that knowledge about Breast Self Examination (BSE) was still not good at 45.5% and students did not routinely do BSE as much as 68.3% and did not know how to do BSE correctly.

RESEARCH METHODS

This study used the Randomized Pre-test Post-test Control Group Design, namely the existence of randomization and the use of a control group that was comparable to the intervention group. Sampling was carried out at Level I female students at Campus VII who had not received material about breast self-examination. Data collection was carried out from May to July 2022 with a population of 292 female students. The sample was taken by cluster sampling as many as 72 female students from 4 Campus VII Level I Study Programs. The sample consisted of three groups, namely 24 respondents without media, 24 respondents with leaflets and 24 respondents with booklets. The research subjects were taken with inclusion criteria from level I female students at Campus VII of the Semarang

Ministry of Health Polytechnic who had not received material on Breast Self-Examination and were willing to become respondents.(Purwokerto Midwifery, 2019); to find out an understanding of the practical skills of Breast Self-Examination using the 6 steps according to the Guide Book of the Indonesian Ministry of Health(Ministry of Health RI, 2015). The questionnaire instrument was tested for validity and reliability on 32 Level I students of Campus VIII Poltekkes Kemenkes Semarang. Respondents studied leaflet and booklet media 3 times in 1 week, the time to study the media was ± 30 minutes.

Analysis of research results to determine the effectiveness of booklet media about BSE on knowledge and practical skills of doing BSE on female students. The results of the normality test using Shapiro Wilk, if the results of the

normality test are declared normal distribution (> 0.05) then a paired sample test is performed, whereas if the results of the normality test in this study are declared abnormal distribution (<0.05) and paired then use the Wilcoxon test. This research has received a proper ethical statement No. 0201/EA/KEPK/2022.

RESULTS AND DISCUSSION

Characteristics of respondents based on age, place of residence, family history of breast cancer, information about breast self-examination. The characteristics of the respondents can be seen in Table 1. as follows:

Table. 1: Characteristics of respondents

Characteristics	Group 1 (Without media)		Group II (leaflet)		Group III (booklet)	
	f	%	f	%	f	%
Age						
18 years	6	25%	4	16.7%	8	33.4%
19 years old	14	58.3%	16	66.6%	16	66.6%
≥ 20 years	4	16.7%	4	16.7%	0	0
Residence						
Rural	19	79.2%	20	83.3%	20	83.3%
Urban	5	20.8%	4	16.7%	4	16.7%
Family history of breast cancer						
There is	2	8.3%	2	8.3%	2	8.3%
There isn't any	22	91.7%	22	91.7%	22	91.7%
Information about Sadari						
Mass media	12	50%	11	45.8%	14	58.4%
Health workers	2	8.3%	8	33.4%	5	20.8%
Information from friends	2	8.3%	2	8.3%	0	0
Other	8	33.4%	3	12.5%	5	20.8%

Based on Table. 1The results of this study were female students with an average age of 18-19 years and 91.7%. Another study explains that Mexican health standards recommend BSE starting at the age of 20 to increase awareness among women about breast cancer, help gain better knowledge and identify any changes or abnormalities to seek appropriate medical treatment.(Juárez-García, García-Solís and Téllez, 2020). Knowledge about breast self-examination in adolescence is very necessary as an effort to detect early breast cancer. Female students as prospective health workers can carry out health promotion about the importance of breast self-examination (BSE) as an effort to detect early breast cancer.

This researchshows most of the respondents are 19 years old, mostly

Respondents live in rural areas, most of the respondents do not have a family history of breast cancer, have received information about breast self-examination, mostly from the

mass media through TV, radio, newspapers and the internet. In the research respondents mostly live in rural areas. StudyFranco et al (2022)there were no significant differences in knowledge, attitudes, behaviors, and practices regarding breast self-examination between women living in urban and rural areas. Most of the information about breast self-examination is through the mass media and health workers. According toPurbasari and Septiannisaa (2020)explained that the booklet is a media for breast examination program for young women using print media which is the most appropriate and effective way to convey information. Physically, a booklet is a print consisting of several sheets of paper bound together, similar to a book.

Based on the results of the research analysis related to knowledge, attitudes and practical skills in conducting awareness in the control group and the intervention group can be seen in Table 2. as follows:

Table. 2: Test results on knowledge, attitudes and skills in carrying out BSE in groups without media, leaflets and booklets

Variables	intervention	df	no media		leaflet		booklet	
			Sig.	p-values	Sig.	p-values	Sig.	p-values
Knowledge of BSE	Pre-Test	24	0.189	0.529	0.050	0.021	0.002	0.008
	Post test	24	0.577		0.005		0.022	
Attitude of BSE	Pre-Test	24	0.451	0.618	0.321	0.477	0.000	0.000
	Post test	24	0.635		0.313		0.001	
Practice of BSE	Pre-Test	24	0.000	0.002	0.000	0.000	0.000	0.000
	Post test	24	0.000		0.264		0.001	

Table 2. Shows that there are significant differences regarding knowledge, attitudes and practices of breast self-examination between before and after the intervention using booklet media. This research is in accordance with the opinion Apriani and Kumalasari (2015) that there is a significant mean difference between the control group (without intervention) compared to the booklet on knowledge about breast cancer about early detection of breast cancer after intervention.

In contrast to the research that has been done Abdullah, Tangka and Rottie (2013) stated that there was no relationship between knowledge about breast cancer and the BSE method of fourth semester students. However, with sufficient knowledge of breast self-examination, it is hoped that adolescents will be able to motivate themselves to take

actions related to early prevention efforts. Risk factors can be dangerous, when not taking preventive measures through early detection.

Research done (Khalip et al., 2021) declared undergraduate nursing students in the public university at Peninsular Malaysia. have good knowledge about breast cancer but have never experienced BSE and have a negative attitude in doing BSE, so interventions are needed that are designed to increase students' ability to do BSE.

The results of the research on the three groups that had been intervened to find out the difference in the mean of the two groups using the mean difference test with independent samples or the Independent Sample T-Test can be seen in the following:

Table 3. Results of Independent Breast Self-Examination Knowledge t-test after the intervention

Group	N	Means	std. Deviation	t	p-values
no media	24	27.33	2.16	-3,301	0.002
booklet	24	29.08	1.44		
Leaflets	24	28.71	1.27	-0.957	0.344
booklet	24	29.08	1.44		

Table 3 shows knowledge about BSE after the intervention with a p-value of 0.002 so that there is a statistically significant difference in the mean or mean between the groups without being given media compared to the media booklet. Knowledge about BSE from after the intervention with a p-value of 0.344 so that there was a statistically significant difference in mean or mean between groups given leaflet media compared to booklet media.

Knowledge about early detection of breast cancer increases after participating in BSE training and practice. This shows that education is an effective way to increase general

knowledge. Increasing public awareness of breast cancer and early detection of BSE can increase hope of recovery and increase life expectancy and improve health status in Indonesia (Marfianti, 2021).

In contrast to previous research, women's knowledge about breast cancer is still lacking and BSE practices are also very low, so more efforts are needed to promote BSE by teaching correct techniques through media such as TV and the internet as sources of information for women. (Ewaid, Shanjar and Mahdi, 2018).

Table 4. Test results for different attitudes towards BSE after the intervention

Group	N	Means	std. Deviation	t	p- value
no media	24	49.46	4,520	-0.316	0.754
booklet	24	49.92	5,492		
Leaflets	24	46.75	3,207	-2,439	0.020
booklet	24	49.92	5,492		

Table 4 describes attitudes towards BSE after the intervention with a p-value of 0.020 so that there is a statistically significant difference in the mean or average between groups given leaflet media compared to booklet

media. Respondents who received Health Education used booklets for attitudes towards BSE after being given an intervention had a higher mean value

Table 5. Results of the Practice Skills Test for BSE after the intervention was carried out

Group	N	Means	Z	Asym Sig.(2-tailed)
no media	24	13.31	-5,599	0.000
booklet	24	35.69		
Leaflets	24	17.06	-3,729	0.000
booklet	24	31.94		

Table 5 shows the practical skills of conducting BSE after the intervention with a p-value of 0.000 so that there is a statistically significant difference in the mean or mean

between the groups without media compared to the media booklet. Practical skills in carrying out BSE after the intervention was carried out with a p-value of 0.000 so that

there was a statistically significant difference in the mean or mean between groups given leaflet media compared to booklet media. Booklets as a medium for conveying information are needed by the community. The booklet is equipped with writing and pictures so that it can clarify the message being conveyed. The steps for self-examination in the booklet will be easy to read and understand again and again. This helps students learn and practice BSE.

Research related to BSE practice skills states that there is a significant relationship between BSE behavior and knowledge and information exposure, so it is hoped that health education related to early prevention of breast cancer through media that can be read and seen so as to increase knowledge about breast self-examination (Masita, 2019).

The research results are also supported by Latifiani (2021) stated that there was an effect of health education using booklet media on the behavior of early detection of breast cancer through BSE.

Booklet as one of the media to increase knowledge. Booklets are media that can be studied repeatedly. Booklet that contains material that has been presented, so that participants can study it again (Nurhayati et al., 2020).

CONCLUSION

Health education with booklet media can increase a good attitude towards breast self-examination and improve the skills of doing breast self-examination in female students.

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