

THE ROLE OF BREAST CANCER SURVIVORS IN IMPROVING BREAST SELF EXAMINATION PRACTICE SKILLS AT SMAN 1 ASEMBAGUS

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Abstract

Breast cancer (Ca Mammae) is the second most common cancer in women worldwide and contributes significantly to several deaths each year. Breast cancer can be prevented through primary prevention strategies, namely BSE. However, this is still rarely done due to factors such as inadequate knowledge, supportive attitudes, resulting in low skills to perform BSE independently. The purpose of this article is to provide health education using the experiential learning method, by presenting Ca Mammae survivors to improve the skills of respondents. Respondents were 61 students of grade XI SMAN 1 Asembagus Situbondo. The results obtained were: Of the 61 students who became respondents, as many as 41 students (67.2%) had good skills, 19 students (31.1%) had sufficient skills, and only 1 student (1.6%) had poor skills. This shows a significant increase in students' skills regarding BSE after being given health education. This is because using this method that combines cognitive, emotional, and practical aspects is proven to strengthen students' understanding and make information more meaningful and easier to remember.

Keywords : Ca mammae, BSE, Skills, Experiential Learning

Introduction

Breast cancer is the second most common cancer in women worldwide and contributes significantly to several deaths each year (Y. Brahmantya et al., 2019). Data from GLOBOCAN (Global Burden of Cancer) 2020 shows that there were 68,858 new cases of breast cancer in Indonesia, which accounted for 16.6% of the total 396,914 new cancer cases (Kirtishanti et al., 2025). Based on data from the Ministry of Health (2022), the highest cancer prevalence was found in Java Island at 29.3% which was influenced by limited access to health facilities and the availability of infrastructure for screening and diagnosis. The target of 70% of women aged 30–50 years who underwent early detection of breast cancer, no district/city has yet achieved the target. This is due to many influencing factors, such as not all women aged 30–50 years are aware of the importance of early detection of breast cancer, fear/embarrassment during the examination, and lack of support from various cross-sectors to encourage targets to undergo early detection of breast cancer. This must be a concern for carrying out early detection of breast cancer to reduce the incidence of breast cancer (Dinkes Jatim, 2024).

According to Fu et al., (2025), breast cancer is highly preventable through primary or secondary prevention strategies such as BSE. Factors such as inadequate knowledge, supportive attitudes, and low skills in performing BSE independently are contributing factors. In BSE, knowledge relates to a person's understanding of the purpose, timing, and signs of breast abnormalities,

attitude reflects awareness, concern, and willingness to perform BSE regularly, while skills refer to the ability to perform BSE steps with correct and systematic techniques. Indirectly, BSE is related to the success of breast cancer treatment because it allows early detection so that cancer can be treated more quickly and the chance of recovery is higher. (Beiranvand et al., 2025).

This emphasizes the importance of early detection through breast self-examination (BSE) to increase the chances of recovery. However, adolescent girls' awareness and skills in performing BSE remain low (Nurrohmah & Yati, 2019). For example, a study found that of 141 junior high school students in Bekasi, 91.5% had never done BSE (Karni et al., 2024). Therefore, effective educational efforts about skills of BSE are needed to increase adolescent girls skills in performing BSE, as well as early breast cancer detection through BSE.

Several previous studies have explored educational methods to improve knowledge about breast self-examination (BSE), but health education that directly provides BSE skills is still limited, especially among female high school students. Some methods used in providing health education include animated videos, lectures, and games (Anggriani et al., 2022). However, counseling that specifically examines the role of cancer survivors as educators in improving BSE skills is still limited. Therefore, this article is novel because the presence of cancer survivors as resource persons can provide a real-world perspective and additional motivation for female students to become more aware of their breast health.

Based on the results of a preliminary study at SMAN 1 Asembagus, it was found that female students at SMAN 1 Asembagus had received counseling from the Youth Red Cross organization at school, but 19 of the 20 female students interviewed said they did not understand the stages of conducting BSE.

Based on the above research findings, there is a need for educational interventions, one of which is through the involvement of breast cancer survivors as educational agents to improve BSE skills at SMAN 1 Asembagus, Situbondo. This is a follow-up to the initial survey with further research at SMAN 1 Asembagus. It is hoped that the results of this study will make a significant contribution to efforts to prevent and detect breast cancer early and reduce breast cancer mortality by improving BSE skills among adolescent girls.

Identification of Problems

Although BSE is recommended as an early detection strategy for breast cancer, gaps remain in health education services, particularly for adolescent girls, characterized by low BSE practical skills and a predominance of informative educational methods lacking direct experience. Health education that has not integrated experiential learning approaches, including the involvement of breast cancer survivors as a source of contextual learning, has the potential to limit the effectiveness of BSE skill improvement. Therefore, this study identifies the need to develop experiential learning-based health education interventions to improve BSE skills in adolescent girls.

Implementation Methodology

The first month of activities began with a meeting between the community service proposal team and school partners. This school community meeting was attended by teachers and student representatives. This meeting aimed to introduce the proposal team to the partners involved. Furthermore, this initial step also included a discussion on potential issues related to student and teacher activities.

Health education and BSE practice involving breast cancer survivors, better known as the *experiential learning method*, are being conducted at SMAN 1 Asembagus. From the first to the third month, with one face-to-face meeting per month, participants will receive Health Education, which includes quizzes, materials, and videos about breast cancer that will be studied by students over four weeks. The program's success will be evaluated in the fourth to sixth months using a skills questionnaire.

The method in this health education is carried out through a pre and post approach. The skills questionnaire is presented in the form of a physical sheet (print out) of female students will be assessed for BSE skills by taking turns as many as 5 people until finished during the pre-test and post-test with the aim of facilitating the assessment of skills in each respondent. The questionnaire uses a questionnaire from a study conducted by Fatimah et al., (2018) with the results of 13 statements in the valid category with a calculated r value ranging from 0.706-0.893 (calculated $r > r$ table) and reliable with a Cronbach Alpha score of 0.907. There are 13 statements from the stages of conducting bse using a score of 5 is perfectly true, 4 is true, 3 is

less true, 2 is wrong, and 1 which means don't know, the minimum score is 13 and the maximum score is 65 then categorized into less, sufficient, and good.

This study adhered to ethical principles. Prior to data collection, informed consent was obtained from the homeroom teachers, who were guardians of the counseling participants. Guardians received information about the study's purpose, procedures, benefits, minimal risks, and the participant's right to refuse or discontinue participation at any time without consequence. Throughout the study, the confidentiality of participant identities and data was maintained using an anonymizer code, and the research results were used solely for academic purposes and the development of health education.

Results and Discussion

Table 1 Respondent Characteristics

Respondent Characteristics	N	Percentage %
Age		
15 years	1	1.6%
16 years	26	42.3%
17 years	34	55.7%
Total	61	100%

Table 1 shows that the majority of respondents were 17 years old, 34 (55.7%). Nearly half were 16 years old, 26 (42.3%). Only a small number of respondents were 15 years old, 1 (1.6%). This indicates that the majority of respondents were in their late teens.

Table 2 BSE Skills Before and After Health Education

Skills Category	Before		After	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Good	13	21.3	41	67.2
Enough	33	54.1	19	31.1
Less	15	24.6	1	1.6
Total	61	100	61	100

Based on Table 2, the distribution of students' BSE skills before receiving Health Education using the Experiential Learning Method at SMAN 1 Asembagus, Situbondo, shows that of the 61 respondents, 13 students (21.3%) had good skills, 33 students (54.1%) had poor skills, and 15 students (24.6%) had insufficient skills. The majority of

students were in the adequate category, indicating that before the intervention, students' BSE skills were still limited and some needed improvement.

After receiving health education using the Experiential Learning method, the distribution of skills changed. Of the 61 students, 41 students (67.2%) now had good skills, 19 students (31.1%) had adequate skills, and only 1 student (1.6%) had poor skills. When compared descriptively, there was a 46% increase in the good category (from 21.3% to 67.2%), a 23% decrease in the fair category (from 54.1% to 31.1%), and a 23% decrease in the poor category (from 24.6% to 1.6%).

This comparison indicates that the Experiential Learning method effectively improved students' skills in performing BSE. The greatest increase was seen in the good category, while the number of students with poor skills almost completely disappeared, confirming the intervention's effectiveness in improving BSE skills across the board.

Discussion

Tables 1 and 2 show an increase in skills after the health education. This demonstrates the effectiveness of the *experiential learning method*, which provides participants with the opportunity to engage directly through discussion, reflection, and presentation of real-life experiences by Ca Mammae survivors. This involves both emotional engagement and practical understanding, enabling deeper understanding and retention of the material.

Adolescents aged 15–17 years, most adolescent girls have reached the final stage of development (Tanner V), where the breasts are structurally mature and more stable. Hormonal changes in this phase are also more stable so that the shape and contour of the breasts are relatively stable, allowing for a more accurate BSE examination and not biased by ongoing growth changes (Yunida Turisna Octavia et al., 2023). This is in line with research conducted by Kurrohman & Nurlita, (2024), who recommend BSE be performed from the age of 15–20 years because breast cancer is susceptible to attack at that age. Individuals with high risks, such as a history of chest radiation before the age of 30 years, are also recommended to perform BSE regularly from the age of 15 years (Xu & Xu, 2023).

Health education can be delivered through various approaches, depending on the specific goals sought, such as improving skills and behaviors. Health education plays a crucial role in

addressing the gap between knowledge and healthy behaviors, particularly among adolescents who are experiencing rapid cognitive and emotional development. This can be achieved through participatory learning methods, such as experiential learning, which provides opportunities for participants to learn through experience, reflection, and discussion.

From a cognitive development perspective, adolescents are in a transitional stage from concrete to abstract thinking (Piaget, 2006), meaning they are beginning to understand the long-term consequences of their actions, including the importance of early breast cancer detection. Presenting information by survivors provides a concrete and tangible narrative, enabling adolescents not only to accept the facts but also to understand the real implications of not performing regular breast self-exams. This approach encourages adolescents to internalize breast self-exam skills as part of their personal responsibility for their health, which aligns with their ability to think critically and make decisions based on experience.

Psychosocially, adolescents are strongly influenced by role models and social interactions (Erikson, 1968). The presence of survivors as figures who have experienced real challenges creates intrinsic motivation, empathy, and self-identification. This increases adolescents' awareness and commitment to applying the skills they learn, as they learn not only theoretically but also draw inspiration from the lived experiences of others. In other words, experiential learning with survivors combines cognitive, emotional, and social aspects, making learning more meaningful, contextual, and effective in developing consistent breast self-examination (BSE) skills in adolescents. In the context of health education on BSE, the use of experiential learning methods allows adolescents to not only passively receive information but also connect it to the real-life experiences shared by survivors of breast self-examination. This approach has been shown to help participants understand the material more meaningfully, increase self-awareness, and strengthen motivation to maintain breast health. Therefore, this participatory learning method is an appropriate choice for increasing adolescents' readiness to develop breast self-examination skills from an early age (Kolb, 2015).

This finding, which combines cognitive, emotional, and practical aspects, has been shown to strengthen students' understanding and make information more meaningful and memorable, in line with previous research by Kurniawa et al., (2023) who found that interactive education effectively increases adolescents' knowledge, awareness, and skills related to early breast cancer detection, namely BSE. Furthermore, the significant skill improvement from this study

is supported by research by Bilodeau et al., (2022) who also used Kolb's theory, where direct experience can encourage transformative learning. The presence of breast cancer survivors provides emotional reinforcement and motivation, making it easier for adolescents to understand the urgency of early detection. This is also in line with research by Awisata & Safitri (2024), which shows that breast cancer survivors are able to convey more complete, authentic, and credible information due to their direct experience with breast cancer. Thus, experiential learning methods not only improve theoretical skills but also build a deep emotional and practical understanding, making information more easily accepted and remembered by respondents.

Although this study demonstrated improvements in BSE skills, several limitations warrant consideration. First, the study did not use a control group, making it difficult to determine whether the skill improvements were entirely due to the Experiential Learning intervention. Second, the short follow-up period limits the ability to assess whether these skills are maintained long-term. Third, skill assessment relied on participants' self-reports, which can be influenced by subjective perceptions and social bias. Finally, during the study, some female students imitated the movements of their peers.

The results clearly demonstrate improvements in BSE technical skills in adolescents following the intervention. However, broader behavioral implications, such as consistency in routine BSE practice or follow-up if abnormalities are detected, need to be explored through further research with observational designs or long-term follow-up. Thus, while experiential interventions have been shown to be effective in developing initial skills, their application to sustainable health behaviors requires further evaluation.

Conclusion

Experiential Learning-based health education involving breast cancer survivors has been shown to significantly improve BSE skills in adolescent girls, build technical skills, and raise awareness of the importance of early detection. This success demonstrates that experiential-based methods are effective in motivating adolescents to consistently implement BSE practices. This approach has the potential to be sustainably integrated into school health programs, discussed on a larger scale, and used as a strategy to strengthen the culture of early breast cancer detection and adolescent health literacy, thereby having a long-term impact on breast cancer prevention in the community.



Figure 1. Image display of activities

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