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Factors associated with breast self-examination among women of reproductive age

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Abstract

Background: Breast cancer remains a major health problem in Indonesia, with high morbidity and mortality rates. Early detection through breast self-examination (BSE) is essential; however, its practice among women is still low.

Purpose: To determine the relationship between knowledge, attitude, and information exposure with BSE practise among women of reproductive age in the working area.

Method: This study used a quantitative analytic descriptive design with a cross-sectional approach. A total of 53 respondents were selected using purposive sampling. Data were collected through questionnaires and interviews and analyzed using the chi-square test with a significance level of $p < 0.05$.

Results: Most respondents had good knowledge (67.9%), positive attitudes (71.7%), and had been exposed to information (67.9%), yet 54.7% did not perform BSE. There was a significant relationship between knowledge ($p = 0.013$) and attitude ($p = 0.044$) with BSE practice, while information exposure was not significantly associated ($p = 0.287$).

Conclusion: Knowledge and attitude are significantly associated with BSE practice, while information exposure is not. Strengthening effective health education is needed to improve awareness and early detection of breast cancer.

Keywords: Attitude; Breast Self-Examination; Information Exposure; Knowledge; Women of Reproductive Age.

INTRODUCTION

Cancer is a disease caused by uncontrolled changes and proliferation of cells within the body. These abnormal cells subsequently form a mass or lump known as a tumor. Cancer can affect nearly all organs of the human body, including breast tissue (Pratiwi, Ambarsari, Fijri, Qomariyah, Mariyana, & Puspita, 2024). In Indonesia, the incidence of cancer shows a significant increasing trend and is projected to rise by more than 70% by 2050 if prevention efforts and early detection are not improved. Currently, it is estimated that there are approximately 400.000 new cancer cases each year, with around 240.000 deaths (Ministry of Health of the Republic of Indonesia, 2025).

One type of cancer with high prevalence and mortality in Indonesia is breast cancer. Breast cancer is the most prevalent type of cancer in Indonesia and

is one of the leading causes of cancer-related deaths. In 2020, the number of new breast cancer cases reached 68,858 cases, accounting for approximately 16.6% of the total 396.914 new cancer cases reported in Indonesia (Wéber, Vignat, Shah, Morgan, Laversanne, Nagy, & Znaor, 2024). In addition, mortality due to breast cancer was reported to exceed 22,000 cases (Ministry of Health of the Republic of Indonesia, 2022).

One of the strategies implemented by the Ministry of Health is through screening and early detection by increasing public awareness of the importance of early cancer detection. In Indonesia, early detection of cancer remains a challenge. Many patients present at an advanced stage, resulting in lower treatment success rates and higher healthcare costs. In fact, up to 50% of cancer cases can be prevented through

healthy lifestyle behaviors such as maintaining a balanced diet, engaging in regular physical activity, avoiding smoking and alcohol consumption, and undergoing routine health check-ups (Ministry of Health of the Republic of Indonesia, 2025).

Delayed breast cancer examination at healthcare facilities in Indonesia is reported to exceed 80%, leading to most cases being detected at an advanced stage, which worsens the patient's prognosis. Data indicate that the case fatality rate of breast cancer diagnosed at an early stage is relatively low, approximately 7.2%. Therefore, early detection and timely diagnosis of malignancy play a crucial role in improving prognosis, in addition to other clinical factors. Early detection accompanied by appropriate management is the most effective strategy to reduce breast cancer mortality (Efriani, Sholihat, & Mardianti, 2024).

One method of early detection that can be performed independently is breast self-examination (BSE). However, the practice of BSE among women in Indonesia remains low (Siregar, 2022). Women's awareness of the importance of early detection through BSE needs to be continuously improved, as this method is still considered effective for the early detection of breast cancer. BSE can be practiced across various age groups, from adolescents to adult women. When performed correctly and regularly,

approximately 80% of breast cancer cases can be detected early. Although the procedure is relatively simple, many women still lack sufficient knowledge and motivation to perform BSE regularly (Tira, Landi, Yusuf, Bebhe, Gracia, Mataufina, & Bena, 2025). Breast self-examination is an examination that can easily be done by every woman to detect lumps or other breast abnormalities (Deviana, Yarah, & Martina, 2024).

RESEARCH METHOD

This study employed a quantitative approach with an analytic descriptive design using a cross-sectional study. The independent variables included knowledge, attitude, and information exposure, while the dependent variable was breast self-examination (BSE). The study was conducted in the working area of Andalas Public Health Center in November 2025. The population consisted of all women of reproductive age (20-40 years) in the same area. A total of 53 respondents were selected using purposive sampling. Data were collected through questionnaires and interviews. The analysis included univariate and bivariate analyses. The relationship between independent and dependent variables was examined using the chi-square test with a significance level of $p < 0.05$.

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RESEARCH RESULT

Tabel Characteristic of Respondents (N=53)

Variable	Results	P-value
Education (n/%)		
Low	16/30.0	
High	37/70.0	
Occupation (n/%)		
Yes	14/26.4	
No	39/73.6	
Knowledge (n/%)		0.013
Good	36/68.0	
Poor	17/32.0	
Attitude (n/%)		0.044
Negative	15/28.3	
Positive	38/71.7	
Information Exposure (n/%)		
Not Expose	17/32.0	
Exposed	36/68.0	
Doing BSE (n/%)		0.287
Yes	24/45.3	
No	29/54.7	

Based on Table there were 16 respondents (30.2%) with a low level of education and 37 respondents (69.8%) with a high level of education, 14 respondents (26.4%) who were unemployed and 39 respondents (73.6%) who were employed, there were 17 respondents (32.1%) who had poor knowledge about BSE and 36 respondents (67.9%) who had good knowledge about BSE, 15 respondents (28.3%) who had negative attitudes toward BSE and 38 respondents (71.7%) who had positive attitudes toward BSE, there were 17 respondents (32.1%) who had never been exposed to information about BSE and 36 respondents (67.9%) who had been exposed to information about BSE and there were 29 respondents (54.7%) who had never performed BSE and 24 respondents (45.3%) who had performed BSE.

The statistical test results showed a p-value of 0.013 ($p < 0.05$), indicating a significant relationship between knowledge and the practice of BSE. The

statistical test results showed a p-value of 0.044 ($p < 0.05$), indicating a significant relationship between attitude and the practice of BSE. The statistical test results showed a p-value of 0.287 ($p > 0.05$), indicating that there was no significant relationship between information exposure and the practice of BSE.

DISCUSSION

The results of the bivariate analysis between knowledge and the practice of BSE showed a p-value of 0.013 ($p < 0.05$), indicating a significant relationship between knowledge and BSE practice. Good knowledge enhances understanding and willingness to perform breast self-examination, whereas poor knowledge tends to result in unfavorable behavior toward BSE due to a lack of understanding of how to perform it properly (Tae & Melina, 2020).

These findings are consistent with a study conducted about relationship between knowledge an attitude about BSE on detect breast cancer which

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found a significant relationship between knowledge and BSE practice with a p-value of 0.037 (Oktavia, Amelia, & Somchai, 2024). Another study on female students at a Bina Mandiri nursing vocational school in Sawangan Depok on 2023 also reported a significant association between respondents' knowledge and BSE behavior, with a p-value of 0.001 (Meryatrisna, Putriwijaya, Liliskurniah, & Susi, 2024).

Knowledge is a domain factor that influences individual behavior. Individuals with good knowledge tend to demonstrate positive behavior, while those with poor knowledge are more likely to exhibit unfavorable behavior. In general, a person's behavior is influenced by the level of knowledge they possess.

Attitude

The results of the statistical analysis between attitude and BSE practice showed a p-value of 0.044 ($p < 0.05$), indicating a significant relationship between attitude and the practice of BSE among women of reproductive age. Attitude can influence the direction of an individual's actions. Individuals with a positive attitude toward a particular behavior are more likely to approach it, seek information, and actively participate, whereas those with a negative attitude tend to avoid or distance themselves from it (Sari, Saputri, & Lubis, 2022).

This is in line with research conducted by Sari, et al. (2022) regarding Factors Related to Breast Self-Examination Behavior in Adolescent Girls at SMK Pandutama Bogor in 2021, it was found that there was a relationship between attitudes and breast self-examination behavior (BSE) in adolescent girls at SMK Pandutama Bogor with a p value of 0.005 (Sari et al., 2022). The same results were also obtained in research conducted regarding the Knowledge and Attitudes of Medical Students at Al-Azhar Islamic University Mataram towards BSE as Early Detection of Breast Cancer, that there was a relationship between attitudes and BSE behavior with a p value of 0.041 (Ayattulla, Suanjaya, Rosmala, & Utary, 2024).

Attitude reflects an individual's readiness to respond to an object or situation within their environment. Whether respondents perform BSE or not depends on the stimuli they receive. When the stimuli are supportive, respondents are more likely to perform BSE; conversely, when the stimuli are not supportive, respondents are less likely to perform BSE.

Information Exposure

The results of the statistical test between information exposure and BSE practice showed a p-value of 0.287 ($p > 0.05$), indicating that there was no significant relationship between information exposure and the practice of BSE. Exposure to media or information reflects how individuals obtain information that can benefit their lives. According to Green, as cited in Notoatmodjo, one of the factors influencing behavior is the enabling factor, in which exposure to mass media is one of its components. Effective sources of information are closely related to improving knowledge and fostering positive attitudes to prevent disease. Information can be obtained from various sources, including health professionals, family members, and peers (Fatimah, Meilani, & Maryani, 2018).

The results of this study are not in line with the research conducted regarding the Relationship between Exposure to Health Information and Adolescent Behavior in Conducting BSE Examination where the statistical test results obtained a p value of 0.035, so it can be concluded that there is a relationship between exposure to information and respondent behavior in conducting BSE (Nabila & Arifah, 2026). The results of another study regarding Factors Related to BSE Behavior as Early Detection of Breast Cancer in Adolescent Girls obtained a p value of 0.027, so it can be concluded that there is a significant relationship between exposure to information and the implementation of BSE (Ningtias, Putri, Swarsih, Sari, Sartika, & Ismoyowati, 2025).

Previous research revealed that 83.9% of respondents had sufficient knowledge about breast self-examination, 54.3% had negative attitudes, 60.3% had inadequate behavior, 100% received good support from health workers, and 54.5% received information about breast self-examination from community health center staff. A person's behavior is influenced by many factors (Cathryne, Siahaan, Soumokil, Cengga, & Sampepadang, 2024).

CONCLUSION

Based on the results of the study, it can be concluded that there were significant relationships between knowledge ($p = 0.013$) and attitude ($p = 0.044$) with the practice of breast self-examination (BSE) among women of reproductive age, while no significant relationship was found between

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information exposure ($p=0.287$) and BSE practice among women of reproductive age.

SUGGESTION

Based on the findings of this study, it is recommended that healthcare providers, particularly at Andalas Public Health Center, enhance health education efforts regarding breast self-examination (BSE) through structured and continuous educational programs to improve knowledge and foster positive attitudes among women of reproductive age. In addition, the development of more engaging and easily understandable educational media is needed to ensure that the information provided can be effectively received and applied in daily life. For the community, especially women of reproductive age, it is expected to increase awareness and routinely perform BSE as an effort for early detection of breast cancer. Future researchers are encouraged to explore other factors that may influence BSE behavior using larger sample sizes and different research designs to obtain more comprehensive results.

REFERENCES

- Ayattulla, T., Suanjaya, M. A., Rosmala, A. Z., & Utary, D. (2024). Pengetahuan dan sikap mahasiswi kedokteran Universitas Islam Al-Azhar Mataram terhadap SADARI sebagai deteksi dini kanker payudara. *Cakrawala Medika: Journal of Health Sciences*, 2(2), 164-172.
- Cathryne, J., Siahaan, J. E., Soumokil, M. P., Cengga, M. T., & Sampepadang, M. (2024). Gambaran Faktor-Faktor Pemeriksaan Payudara Sendiri Sebagai Deteksi Dini Kanker Payudara. *Nursing Current: Jurnal Keperawatan*, 12(2), 214-226.
- Deviana, C., Yarah, S., & Martina, M. (2024). Faktor-Faktor yang Berhubungan dengan Pemeriksaan Payudara Sendiri (SADARI) pada Wanita Usia Subur di Desa Peuniti Kecamatan Baiturrahman Banda Aceh. *Jurnal Teknologi dan Sains Modern*, 1(4), 127-133.
- Efriani, R., Sholihat, S., & Mardianti, O. (2024). *Pemeriksaan Payudara Sendiri (SADARI): Panduan untuk Deteksi Dini Kanker Payudara*. Penerbit NEM.
- Fatimah, H. R., Meilani, N., & Maryani, T. (2018). Faktor-faktor yang mempengaruhi perilaku deteksi dini kanker payudara dengan SADARI pada wanita di Kecamatan Tegalrejo Kota Yogyakarta (Doctoral dissertation, Poltekkes Kemenkes Yogyakarta).
- Meryatrisna, M., Putriwijaya, P., Liliskurniah, L., & Susi, S. (2024). Hubungan Pengetahuan Dan Sikap Terhadap Perilaku Periksa Payudara Sendiri (Sadari) Pada Remaja Putri Di Smk Keperawatan Bina Mandiri Sawangan Depok Tahun 2023. *Jurnal Ilmiah Bidan Учредители: Sekolah Tinggi Ilmu Kesehatan Pelita Ilmu Depok*, 8(1).
- Ministry of Health of the Republic of Indonesia. (2022). Kanker Payudara Paling Banyak di Indonesia, Kemenkes Targetkan Pemerataan Layanan Kesehatan. Retrieved from: <https://kemkes.go.id/id/kanker-payudaya-paling-banyak-di-indonesia-kemenkes-targetkan-pemerataan-layanan-kesehatan>
- Ministry of Health of the Republic of Indonesia. (2025). Kasus Kanker Diprediksi Meningkat 70 Persen pada 2050, Kemenkes Perkuat Deteksi Dini. Retrieved from: <https://kemkes.go.id/id/kasus-kanker-diprediksi-meningkat-70-persen-pada-2050-kemenkes-perkuat-deteksi-dini>
- Nabila, S. A., & Arifah, I. (2026). Hubungan Keterpaparan Informasi dan Dukungan Teman Sebaya terhadap Praktik SADARI pada Wanita Usia 20-39 tahun di Kecamatan Banjarsari (Doctoral dissertation, Universitas Muhammadiyah Surakarta).

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- Ningtias, A. A., Putri, S. H., Swarsih, A., Sari, R. A. P., Sartika, A., & Ismoyowati, T. W. (2025). Faktor-Faktor yang Berhubungan dengan Perilaku SADARI sebagai Deteksi Dini Kanker Payudara pada Remaja Putri. *Jurnal Keperawatan Florence Nightingale*, 8(2), 177-185.
- Oktavia, L., Amelia, W., & Somchai, A. A. (2024). Hubungan Pengetahuan dan Sikap tentang Pemeriksaan Payudara Sendiri (SADARI) dalam Mendeteksi Dini Kanker Payudara. *Lentera Perawat*, 5(1), 39-43.
- Pratiwi, L., Ambarsari, A., Fijri, B., Qomariyah, Mariyana, W., & Puspita, N. V. I. (2024). *Mengenal Mencegah Kanker Payudara: Sudut Pandang Teori & Penelitian*. CV Jejak (Jejak Publisher).
- Sari, I. G., Saputri, M. E., & Lubis, R. (2022). Faktor-Faktor Yang Berhubungan Dengan Perilaku Sadari Pada Remaja Putri Di Smk Pandutama Bogor Tahun 2021. *Jurnal Penelitian Keperawatan Kontemporer*, 2(1), 98-106.
- Siregar, R. (2022). Faktor-Faktor Yang Mempengaruhi Perilaku Pemeriksaan Payudara Sendiri (Sadari) Pada Remaja Putri Kelas X. *Indonesian Journal for Health Sciences*, 6(1), 35-42.
- Tae, M. M., & Melina, F. (2020). Hubungan Tingkat Pengetahuan Tentang Sadari Dengan Kepatuhan Melakukan Sadari Pada Mahasiswa Diii Kebidanan Di Stikes Yogyakarta. *Jurnal Kesehatan Samodra Ilmu*, 11(2), 154-165.
- Tira, D. S., Landi, S., Yusuf, N. N., Bebbe, M. W., Gracia, F., Mataufina, M. C., & Bena, P. T. (2025). Penyuluhan Kesehatan Tentang Kanker Payudara dan Pemeriksaan Payudara Sendiri pada Wanita di RT 13B Kelurahan Penfui Timur. *Jurnal Pengabdian Masyarakat Bangsa*, 3(2), 375-379.
- Wéber, A., Vignat, J., Shah, R., Morgan, E., Laversanne, M., Nagy, P., & Znaor, A. (2024). Global burden of bladder cancer mortality in 2020 and 2040 according to GLOBOCAN estimates. *World journal of urology*, 42(1), 237.

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