The Implementation of SADARI in the Early Detection of Breast Cancer in Young Women High School of West Aceh Regency

1Arfah Husna, 1Muhammad Iqbal Fahlevi.

1Faculty of Public Health, Univeristas Teuku Umar, Indonesia
Coresponding author: Arfah Husna, e-mail: arfahhusna@utu.ac.id
Co-author: MIF: fahlevi@utu.ac.id

Submitted: 16/03/2020 Revised: 02/04/2020 Accepted: 19/04/2020 Published online: 21/04/2020
doi: https://doi.org/10.35308/j-kesmas.v7i1.1919 How to cite this article: Husna, A., & Fahlevi, M.I. (2020). The implementation of sadari in the early detection of breast cancer in young women high school of West Aceh Regency. J-Kesmas: Jurnal Fakultas Kesehatan Masyarakat (The Indonesian Journal of Public Health), 7(1), 51-56.

Abstract

Breast cancer (carcinoma mammae) is a condition where cells have lost control and normal mechanisms, resulting in abnormal growth, rapid and uncontrolled which occurs in breast tissue. Early detection of breast cancer aims to find cancer in the early stage so that the treatment is better. The detection is done by doing SADARI, SADARI is an easy examination to find a lump or agility others. The case of cancer of West Aceh Regency in 2015 S/d 2017 recorded the number of cases of breast cancer at most 24.43% compared with other cancers. Women aged 50 years more who have breast cancer reaches 52%, 35% at the age of less than 40 years, 22% of women aged 30 years and the younger age exposed to breast cancer is the age of 15 and 18 years. The study aims to determine the influence of breast cancer counseling and breast-check training (SADARI) in an effort to improve the knowledge and skills of young women in the Act of SADARI for prevention and decrease in cases of breast cancer. This research uses Quasi-Experimental design. The research plan is one group before and after intervention design, or one group pre and posttest design. The population in this study is young women SMAN District ACEH Barat with samples amounting to 30 young women. The results of the study concluded that there was an effect of BSE Implementation (counseling about breast cancer and breast self-examination training) in an effort to increase the knowledge of young women about breast cancer and the skills of young women in breast self-examination.

Keywords : SADARI implementation; breast cancer; young women

Introduction

Based on the World Health Organization (WHO) Cancer disease is the most cause of death in the world and the case of breast cancer affects women aged 50 years and above as much as 78%, while women who are less than 40 years experience breast cancer as much as 6%. But breast cancer is also suffered by women who are 30 years of age (Kementerian Kesehatan Republik Indonesia, 2015)

West Aceh District, based on Sistem Informasi Rumah Sakit Umum Cut Nyak Dhien Meulaboh in 2015 S/d 2017 the number of breast cancer recorded at most is 24.43% compared with other cancer cases. Women over 50 years old who have breast cancer reaches 52%, while 35.5% suffer by women who are less than 40 years old. This deadly disease is also suffered by women who are 30 years of age, which is 22% and age is exposed to the case of the youngest breast cancer in West Aceh District is the age of 15 and 18 years. (Rumah Sakit Cut Nyak Dhien Meulaboh, 2018). As the development of health technology, breast disorders can be detected early in various ways with mammography, thermography, biopsy, Ultrasonography of breasts and ductography. There is one of the cheaper, easier and more efficient tests to detect breast cancer by yourself, which is the breast exam yourself (SADARI) (Suryaningsih, 2009).

Early detection of breast cancer aims to find cancer in the early stage so that the treatment is better. The detection is done by doing SADARI, SADARI is an easy examination to find a lump or agility others. SADARI of routine after menstruation, about 1 week after menstruation. (Purwoastuti, 2008).

SADARI as a method of early detection of breast cancer is a very easy, efficient and inexpensive method, but there is a main problem in SADARI the implementation is very little to do it right. SADARI implementation 25% to 30% do SADARI regularly and correctly each month. (Departemen Kesehatan Republik Indonesia, 2008)
Researchers have conducted preliminary studies on February 6, 2018 at MAN Unggul Meulaboh West Aceh Regency, through an interview method of SADARI (the goal is realized, understanding aware, when to do realize and how to do realize) There are 12 grade X students, obtained from 12 students who correctly answered only 1 (one) person.

This research aims to determine the impact of breast cancer training and awareness SADARI in an effort to improve young women's knowledge of breast cancer and young women's skills to breast examination (SADARI) for prevention and reduction of breast cancer cases. In addition, participants are expected to provide counseling and training to convey and disseminate information both to family and peers by utilizing leaflets and pocket books provided at the time of extension and training.

**Materials and Methods**

This research uses Quasi-Experimental design. The study aims to evaluate the effectiveness of health program interventions in young women. Planned design is one group before and after intervention design, or one group pre and post test design. The population in this study was the entire young women SMAN West Aceh Regency. Research samples were established using consecutive sampling technique. Samples of 30 in the group are at risk of breast cancer (age 15-17, early menstruation and the family have a history of cancer) students of SMAN West Aceh District, data was collected using a questionnaire, the data analysis is univariate and bivariate analysis.

**Results**

**Univariate analysis**

| Variable          | Treatment Groups (n =30) | Control Groups (n=30) |
|-------------------|-------------------------|-----------------------|
|                   | F         | %    | F      | %    |
| Age               |           |      |        |      |
| 16 years          | 12        | 40   | 14     | 46.7 |
| 17 years          | 18        | 60   | 16     | 53.3 |
| Total             | **30**    | **100** | **30** | **100** |

*Source: Data Primer, 2019*

The characteristics of the young women in this study were name from the age of the young women during research in the year. Porporsi most young women aged 17 years on a group case (60%) and control groups (53.3%)

| Variable          | Treatment Groups (n =30) | Control Groups (n=30) |
|-------------------|-------------------------|-----------------------|
|                   | F         | %    | F      | %    |
| The First Age of menstruation |           |      |        |      |
| 9 years           | 5         | 16.7 |          |      |
| 10 years          | 9         | 30   |          |      |
| 11 years          | 15        | 50   |          |      |
| 12 years          | 1         | 3.3  |          |      |

Table 2. Frequency distribution characteristics of young women the first age menstruation on treatment groups and control groups

The stage of implementation method in this research activity consists of: 1) Preliminary Survey to SMAN in West Aceh District, 2) licensing to the research site is to SMAN in West Aceh district. 3) Pre Test activities, Pre Test activities conducted by the survey technique using questionnaire that contains about breast cancer and SADARI in the young women and performed for once. This pre test activity aims to determine the level of understanding and initial ability of the respondent on breast cancer and SADARI, and to get the young women with the criteria of the inclusion as a young woman. 4) Counseling about breast cancer and SADARI, the content of counseling is to explain about breast cancer and its prevention efforts. The extension materials provided through the media slides, videos, pocket books and leaflets provided to each extension target are equal, complete and delivered in a communicative language and way with the counseling method accompanied by discussions with young women. 5) SADARI training, this activity is done with interpersonal communication system through the media slides, videos, pocket books and leaflets delivered to each of the same counseling objectives, discussion and simulation SADARI using the breast mannequin on Young women. Training time is given once during research. 6) Practice SADARI, young women can perform their own breast examination Practice (SADARI) well in accordance with the SADARI stages. 7) Post Test, post test activity is done by surveying techniques by using the questionnaire that contains about breast cancer and SADARI in the young women directly and performed for a while. The pre test aims to determine the success of breast cancer and realize (Promkes method) and to know the absorption of the young women about the counseling provided.
The characteristics of the young women in this study were age of the first time young women were menstruating. Porporsi most young women the age range of the first time young women menstruation in the treatment group is 9 – 12 years, the most menstrual period, the first time of 11 years (50%). The first age range of menstruation in the control group is 13 – 16, most of the 15-year-old proportion (50%).

Table 3. Knowledge frequency distribution of the young women's group of the Treat and control group (Pre Test)

| Variable       | Treatment Group (n=30) | Control Group (n=30) |
|----------------|------------------------|----------------------|
|                | F  | %      | F  | %  |
| Knowledge Score| 6  | 19     | 9  | 30  |
|                | 7  | 18     | 21 | 70  |
|                | 8  | 3      | 10 |      |
| Total          | 30 | 100    | 30 | 100 |

Sumber : Data Primer, 2019

An overview of the level of knowledge on SADARI the young women of the West Aceh District High School in the treatment group most young women have the most point value of 7 (60%). The knowledge of REALIZE in the control group most proportion has 9 points (70%).

Table 4. Frequency distribution actions of the young women's group of the treat and control group (Pre Test)

| Variable       | Treatment Group (n=30) | Control Group (n=30) |
|----------------|------------------------|----------------------|
|                | F  | %      | F  | %  |
| SADARI Action Score | 0  | 23     | 100|
|                | 2  | 2      | 6.7|
|                | 3  | 3      | 10 |
|                | 4  | 2      | 6.7|
| Total          | 30 | 100    | 30 | 100 |

Sumber : Data Primer, 2019

From the research known that the action SADARI young women value mean pre test 0.7 and the value of the mean post Test 10, there is an increase of 9.3 with Indigo P 0.000, which means that there is a statistical difference in statistics the action SADARI Group treatment after the counseling and training SADARI.
Based on the results of the research known that the average value of pre test 6.7 and the mean post test 67.6 value, there is an increase in 0.006 with the value of P 0157, which means that there is no statistical difference in statistically meaningful level of knowledge control group.

Discussion

SADARI the young women's knowledge before and after intervention

This research is in accordance with the research of Yulinda (2018) The increase in young women's knowledge of SADARI after being given counseling intervention and training at SMKN 5 Surabaya. With a statistical test result using Wilcoxon Signed Rank Test showed the value of P (0.000) > α (0.005), it was concluded that knowledge before and after health counseling and training was a difference.

Bloom states that knowledge is the process of knowing or the "Cognitive domain" section consisting of six levels of Know (know), understanding (Comprehension), Application (application), analysis, Synthesis (synthesisi) and Evaluation. Knowledge (cognitive) is a domain that is very important in creating actions (over behaviour). Forming behavior is a process of knowledge that is the outcome of the learning process. This study is also in line with research Crista F Sinaga & Tri Rdayani, there is a relationship between knowledge and attitudes of young women about early detection of breast cancer through BSE in Pasundan 8 High School in 2016 with a p-value of 0.003.

This study is not in line with research conducted by Weni Tri Purnani & Binti Qoniah, more effective health education is the Peer Group Education method with a demonstration method of breast self-examination skills (BSE) in young women at SMAN 1 Kediri City in 2018. In this study Improvement in Self-Awareness Actions for Senior High School Girls in Aceh Barat District were given interventions using Demonstration, Training and Video Screening methods. The results of this study are in line too with research conducted by Murmita & Parlindungan (2014), there is a relationship of knowledge with examination (BSE) in Class III Manggeng State High School students. This is in line with Sari et al. (2019) The average score of knowledge of female students has increased before and after the intervention in Andalas University Students

This study also shows the same results as the research conducted by Bringiwatty Batbual in SMA Negeri 1 Baumata Kabupaten Kupang 2014. This research is a descriptive study with a pre-post design. The results showed that most respondents (41.2%) had less knowledge about BSE and 59% had good knowledge after the seminar.

The results of the same study conducted by Aulia & Azam (2015) in SMK N 1 Kersana students showed that all respondents experienced an increase in scores after being given material about breast cancer and early detection by breast self-examination (BSE) through Facebook social media. Research conducted by Sharifia et al. (2019) also shows the same research results, namely the level of knowledge and confidence felt by women in the intervention group compared to the increased control after HBM-based educational interventions.

Research conducted on female undergraduates in Uyo, Akwa Ibom State, Nigeria, found that breast cancer and BSE awareness levels were high among respondent, respectively 99% and 91,35, but knowledge about risk factors for breast cancer is very beld. Only 20% of respondent know the right time to do BSE, and 4% have good knowledge about BSE, bad BSE practices, only 9% of them do it every month (Motilewa et al., 2015).

Research conducted by Katkuri & Gorandla (2018) Among women age 15 years above in urban slums show only 35% of the study population are aware of the initial danger sign and 66% are unaware. Awareness about breast cancer risk factors is very poor, with only 21% knowing about breast cancer risk factors. Nearly 54% said they knew about breast cancer by a clinical examination conducted by a doctor, 35% said by breast self-examination and 12% said by mammography.

Of the 256 female Allied health science undergraduates, 142 (55.47%) had good knowledge while 114 (44.53%) had poor awareness and knowledge about breast cancer and its screening methods (Safrina et al., 2019).

SADARI action before and after intervention

Action is a person's behavior to Mmepraktap or do what is being addressed or that is judged well. Visual stimulus (vision) and audio (hearing)
stimulation can affect a person's interest in improving action for the better (Notoatmodjo, 2012). Analysis results are known to influence given before and after the intervention (counseling and training) on the actions of SADARI the young women of the upper middle School of West Aceh Regency

This study is also in line with research by Sinaga & Rdayani (2016) showing that there is a significant relationship between the knowledge of young women about early detection of breast cancer through BSE in Pasundan 8 High School Bandung in 2016.

Before being intervened (counseling and training) the majority of young women never did SADARI. Only a small part of the young woman who performed the act of SADARI, and the SADARI steps that the young women had performed before the intervention was still lacking, from a small portion of young women who asked the young women to do so Step because the young women do not know the appropriate SADARI steps and feel embarrassed, the young women just doing the step fingering the breasts. SADARI training that young women receive can change the young women to do SADARI according to the steps of SADARI.

The results of this study were supported by the research of Ouyang & Hu (2014) The presence of accurate increase in breast self-examination after being given the intervention of breast-check training themselves.

Research conducted by Murnita & Parlindungan (2014) in Class III students of Manggeng State High School also showed the same results, namely there was a relationship between the action against examination (BSE).

This study in line with research conducted by Lubis (2017) on all XI MA Al-Fatih Natar students. Chi square statistical test shows that there is a significant relationship between knowledge about breast self-examination (BSE) with BSE behavior p value 0.016. This research is in line with research conducted by Desanti et al. (2010) in the city of Semaraang, Central Java, that the variables related to breast self-examination behavior are confounding variables, namely the level of knowledge, education, and information about breast self-examination.

This study is also in line with research conducted by Tiwari & Naik (2018) among female college students in the chosen University of Bhilai, Chhattsgarh, India, known after intervention, the average post-test knowledge and practice score regarding breast self-examination of college girls was significantly increased in the experimental group (p = 0.00). The average post-test knowledge and student practice scores in the experimental group were significantly higher than in the control group (p=0.00)

The mean age of students was 20.23 ± 2.61 years. Of all participants, 11.3% were diagnosed with breast disease by a doctor. Meanwhile, in 15.8% of those positive family history of breast cancer were found. After training on breast cancer and methods of early diagnosis, their knowledge of health care, and its application increased (p <0.05). After training, students' vulnerability, seriousness, self-efficacy, health motivation and perceived benefits increased and their perceptions of barriers decreased (p <0.05). (Sekerci et al., 2019)

Conclusion

Realized implementation in the early detection of breast cancer researchers have conducted in the young women have a positive influence on the knowledge and actions realized so as to prevent the risky group to not experience Breast cancer, thus able to suppress the number of breast cancer cases with no increase in new cases.

Acknowledgement

A thank you researcher offered to KEMENRISTEK DIKTI for the aid of the cost of the PDP scheme in 2019 and thanks to the head of MAN 1 Aceh Barat, head of SMA Negeri 1 Meulaboh, SMA Negeri 2 Meulaboh who has given research permit.

Author Contribution and Competing Interest

Authors' contributions in this research are involved in the design of research projects, collecting data or analyzing results, involved in drafting or revising scientific papers.

Publisher’s Note

J-Kesmas: Jurnal Fakultas Kesehatan Masyarakat (Indonesia Journal of Public Health) remains neutral with regard to jurisdictional claims in published institutional affiliation.

References

Aulia, D., & Azam, M. (2015). Media Sosial Facebook sebagai sarana Pemberian Materi Kanker Payudara. Journal of Health Education 1(2), 9-14.
Batbual, B. (2014). Pengetahuan Remaja Putri Tentang Pemeriksaan Payudara Sendiri Di SMA Negeri 1 Baumpaten Kupang. *Jurnal Kebidanan/Midwifery Medical Journal* 1(1), 44-49.

Departemen Kesehatan Republik Indonesia (2015) Stop kanker. Pusat Data dan Informasi Departemen Kesehatan Republik Indonesia. Jakarta.

Departemen Kesehatan Republik Indonesia (2015) Pedoman Teknis Pengendalian Kanker Payudara dan Kanker Rahim. Jakarta.

Departemen Kesehatan Republik Indonesia (2015). Situasi penyakit kanker. Jakarta.

Desanti, O.I., Sunarsih., & Supriyati (2010) Persepsi wanita beresiko kanker payudara tentang pemeriksaan payudara sendiri di Kota Semarang Jawa Tengah. *UGM Journal*, 26(3): 152-161.

Katkuri, S., & Gorantla, M. (2018) Awareness about breast cancer among women age 15 years and above in urban slums: a cross sectional study. *Internat. J. Community Med. Pub. Health*, 5(3): 929-932.

Lubis, U. L. (2017) Pengetahuan remaja putri tentang pemeriksaan payudara sendiri (SADARI) dengan perilaku sadari. *Aisyah Journal*, 2(1): 44-49.

Motilewa, O.O., Ekanem, U.S., & Ilhesie, C.A. (2015) Knowledge of breast cancer and practice of self-breast examination among female undergraduates in Uyo, Akwa Ibom State, Nigeria. *Internat. J. Commun. Med. Pub. Health*, 2(4): 361-366.

Murnita., & Parlindungan, F. (2015) Hubungan Perilaku Remaja Putri Terhadap Pemeriksaan Payudara Sendiri (Sadari) Di SMU Negeri 1 Klas III Mangeng Kabupaten Aceh Barat Daya. *Indones. J. Pub. Health*, 2(2): 78-86.

Notoatmodjo. (2012). *Pendidikan dan perilaku kesehatan*. Jakarta: Rineka Cipta.

Ouyang, Y., Q. & Hu, X. (2014) The effect of breast cancer health education on knowledge, attitudes and practice: Community Health Center Catchmen Area. *J. Cancer Educ.: The Official Journal of the American Association for Cancer Education*. 29(2): 375-81.

Purnani, W. T., & Qoniah, B. (2018) Efektivitas pendidikan kesehatan metode peer group education dengan metode demonstrasi terhadap keterampilan sadari. 2018. *Journal of Unair* 2(1): 69-75.

Purwoastuti E. (2008). Kanker payudara pencegahan dan deteksi dini. Jakarta: Kanasius.

Rumah Sakit Umum Cut Nyak Dhien Meulaboh (2018). Data Kasus Kanker Payudara Sistem Informasi RSUD Cut Nyak Dhien. 2018. Meulaboh

Sharifikia, I., Rohani, C., Estebarsi, F., Mattboei, M., Salmani, F. & Hossein-Nejad, A. (2019) Health Belief Model-based Intervention on Women's Knowledge and Perceived Beliefs about Warning Signs of Cancer. *Asia-Pacific J. Oncol. Nursing*, 6(4): 431-439.

Sekerci, Y. G. & Sobbet, R. (2019) The effect of education breast cancer and early diagnosis methods on the students’ health knowledge, belief and practice. *Jaren*, 5(3): 202-212.

Safrina, M.A., Maiya, G.R., Akram, G.W. & Jain, T. (2019) Awareness and knowledge of breast cancer and its screening methods among female undergraduated Allied Health Science Students of a College in Semi Urban Chennai. *Internat. J. Community Med. Pub. Health*, 6(11): 488-489.

Suryaningsih. 2009. *Kuras tuntas kanker payudara*. Yogjakarta. Paradigma Indonesia.

Sulastrri., Thaha, R.M., & Russeng, S.S. (2012). Pengaruh penyuluhan kesehatan menggunakan video dalam pemeriksaan payudara sendiri (sadari) terhadap perubahan pengetahuan dan sikap remaja putri di SMAN 9 Balikpapan tahun 2012. *Journal of UIN Alauddin*.

Sari A.F., Sari, N.P., & Nabilah. (2019). Promosi Kesehatan “Sadari” Menggunakan Instagram pada Mahasiswa Non Kesehatan Universitas Andalas. *JURNAL MKMI* 15(3), 16-21.

Sinaga, C.F., Sari, N.P., & Sohbet, R. (2019) Pengaruh penyuluhan kesehatan menggunakan video dalam pemeriksaan payudara sendiri (sadari) terhadap perubahan pengetahuan dan sikap remaja putri di SMAN 9 Balikpapan tahun 2012. *Journal of UIN Alauddin*.

Tiwari, A. & Naik, M. (2018). Effectiveness of structured teaching program on knowledge and practice regarding breast self-examination among collage girls a selected collage of Bhilai, Chhattisgarh, India. *Internat. J. Community Med. Pub. Health*, 5(9): 4028-4036.

Yulinda A. (2018) Perbedaan Pengetahuan Remaja putri tentang SADARI sebelum dan sesudah SMKN 5 Surabaya. *Journal of Unair*.

*********

This article is licensed under CC BY-SA 4.0 License