

Breast cancer: breast self-examination (BSE) practice

Abstract

Breast cancer commonly occurs in women. Breast cancer occurs around the world including in Asia and also in Malaysia. The number of people suffering from breast cancer is increasing. There are several factors that influence the increase in the number of people with breast cancer. At the same time there are also several countries that have sought treatment for individuals suffering from breast cancer. The cost of treatment is higher than the cost of prevention. Therefore, prevention is more important. If preventative measures are not made, the possibility and the risk of getting the disease is high. In this regard, this article discusses an early step to prevent breast cancer from attacking women. The step is to do a Breast Self-Examination (BSE). All women can perform this procedure. The BSE method does not require high costs. The individuals only need discipline in performing BSE. They do not need to go to a clinic or hospital.

Keywords: breast cancer, breast self-examination, prevention, self-treatment

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Syed Kamaruzaman Syed Ali, Halimah Jalil, Hutkemri

Department of Mathematics and Science Education, Faculty of Education, University of Malaya, Malaysia

Correspondence: Syed Kamaruzaman Syed Ali, Department of Mathematics and Science Education, Faculty of Education, University of Malaya, Malaysia.
Email syedkamaruzaman@gmail.com

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Introduction

Breast cancer has now become a social issue in society today. Most people who have a critical stage breast cancer are difficult to recover. Therefore, preventive measures are better than treating. Breast cancer has been known since ancient times around 3000 BC. During the early stage, the disease was written by medical experts from Egypt and then continued by Greek and Roman medical experts from medieval and modern times.¹ The disease commonly affects women but men are not excluded.² Apart from humans, it also attacks animals especially mice, shrews and dog species.³ This disease can be detected when it is felt that there is a tumor or a hard lump in the breast, not painful and sometimes contains fluids. In terms of treatment, a type of surgery was known in 42 years BC until 37 years AC.

Breast cancer trend around the world

Breast cancer is the main disease that causes fatalities among women around the world.⁴ According to the statistics of World Health Organization,⁵ the number of deaths caused by breast cancer amounted to 502,000 women. GLOBOCAN 2001, the International Cancer Research Agency reported that several developing countries such as America, Europe and Australia found that the number of women suffered from this disease increased to more than 80 out of 100,000 people.⁶

According to Howe et al.⁷ the increase in breast cancer is due to the increase of the elderly and this influences the data obtained from the early detection of the disease. Meanwhile in developing countries such as Africa and Asia, the number of breast cancer patients is less than 30 out of 100,000 people. The average increase in the number of breast cancer around the world has increased from 30% to 40% since 1970s to 1990s.⁸ In terms of treatment, it is found that developing countries have more success rate than developing countries. This is due to their early detection and treatment of breast cancer.⁹ According to Metflin,⁹ from the success detection and early treatment, the rate of recovery from the disease has increased from 6 to 23 people out of 100,000 people.

According to the world's statistics, the breast cancer patients on the African continent are found to be less than those with cervical cancer patients.⁸ According to Althuis et al.⁸ most of them are women

living in Sub-Saharan and countries such as Ibadan, Nigeria, Kempala and Uganda.

Breast cancer trend in asia

According to Parkin & Fernandez¹⁰ Asian patients who suffered from breast cancer are somewhat less compared to the other continents despite the world statistic showing an increase of 50 people from 100,000 people especially in the Philippines and Krachi-Pakistan. In India, according to Yeole & Kurkure, there is an increase of patients from those living in urban areas, who mostly comprised of Christians compared to Muslims.

Meanwhile in China, according to Yang et al.¹¹ the increase of breast cancer is found in both urban and rural areas. Similarly in Singapore, according to studies conducted by Seow et al.¹² there were increment of 38 breast cancer cases from 100,000 people.

Breast cancer trend in malaysia

In Malaysia, breast cancer is a major cause of cancer death among women. This incident usually happens in women aged between 35 and 55 years and it increases with age. Cancer incidence (number of new cancer cases) is increasing.¹³

In Peninsular Malaysia, according to the third report by the National Cancer Registry (2005), women who suffered from breast cancer are found to be 4120 people out of 100,000 people. The average age of the women' incidence is within 47.4 years. The majority population of Peninsular Malaysia consists of Malays, Chinese, and Indians. The Malays are found to be suffering from breast cancer the most, that is at 45.1% , followed by the Chinese with 44.8% and India with 10.1%.

Similarly, the second report of National Cancer Registry in Malaysia (2003) found that 3,738 people out of 100,000 Malaysians suffered from breast cancer. The Chinese were found to have more (45.6%) breast cancer than the Malays (42.9%) and India (11.5%). In addition to these treatments, all cancer patients need moral support from families, communities and other medical authorities to survive.²

In a study conducted by Halimah,¹⁴ out of 120 samples studied, only 3 samples had a family history of breast cancer, 4 with incomplete breasts, and 113 had never undergone biopsy tests. The findings show

that there are still many individuals who can be susceptible to breast cancer if they do not take precautionary measures such as breast cancer screening.

Breast cancer treatment

There are various treatment options for someone who has been diagnosed with breast cancer. Surgical treatment is one of the common conservative treatments available to patients (American Cancer Society, 1999).¹⁵ Some of the women will undergo a less-invasive surgery called lumpectomy that involves the removal of tumors alone. Meanwhile, women who have serious tumors will perform mastectomy modifications surgeries whereby breast tissue and lymph nodes are removed or radical mastectomy where breast muscles and the surrounding breast lymph nodes are removed. After surgery, it is likely to be followed by chemotherapy or radiotherapy treatments. For the time being, many lumpectomy and mastectomy modifications have been performed since 1990s as it can maintain the shape of the breast as naturally.¹⁶

Radiation therapy and chemotherapy are used after Lumpectomy and mastectomy modification surgeries. Radiation therapy uses high energy radiation to weaken and stop cancer cells from developing (National Cancer Institute, 2007).¹⁷ But chemotherapy is very important to kill cancer cells that can be detected through x-rays. The combination of chemotherapy drugs is very important to achieve good treatment effectiveness (American Cancer Society, 1999).¹⁵ Finally, hormone therapy is needed to replace the body hormones that allow cancer cells to survive. This treatment can be done by administering antitumor or removing the ovary that produces estrogen (American Cancer Society, 2000). However, alternative treatments such as herbs and nutritional treatment are still more prevalent in the marketplace introduced by various agents. However, no matter what type of treatment, it should not be mixed. Discussions with the doctor are recommended and conventional treatment should be completed before turning to alternative treatment.

Breast cancer screening

Due to the high incidence of breast cancer among women, screening is now proposed in many countries. The suggested screening methods include Breast Self-Examination (BSE), Breast Clinical Examination (BCE) and mammography. Only mammography screenings have been shown to reduce death from breast cancer.¹⁸ Some countries encourage the elder women to perform regular mammography examination for early detection of breast cancer.

According to Smith et al.¹⁹ from the American Cancer Society, early detection of breast cancer can be done in various ways such as BSE and BCE performed by the professionals such as nurses or doctors via mammography, ultra sound, x-ray and Magnetic Resonance Imaginary (MRI) done by radiographers. The National Cancer Institute (2007)¹⁷ suggests the baseline for mammography screening is at the age of 35. It is advisable for women over the age of 40 to undergo screening every 2 years and once a year for women over 50 years. Mammography examination can detect tumors even though the size is very small compared to other tests. This can retain the breast after treatment because only minor surgery is performed.

Justification of breast self-examination (bse) screening

The most important component of health education and the prevention of breast cancer is performing BSE that can help

women to detect early breast cancer. Many studies have shown that mammography is a very effective examination to reduce the rate of mortality for women aged 50 to 69 years.²⁰ However, the effectiveness of BSE in reducing breast cancer mortality is still unclear. Anyhow breast cancer mortality rates can be reduced through early detection but only 20% to 25% of women do regular breast examinations.²¹ However, there are early studies supporting the effectiveness of BSE.²² In overall, there is only a little impact on the early detection of breast cancer (Grady, 1992). However, a few studies have found that BSE has a detrimental effect on women. According to Erblich, Bovberg & Valdimarsdottir among the implications are the anxieties and worries as they perceive the lumps that they feel is cancerous. This causes women to experience uncertain worries. But on the other hand, if women do not feel any lumps when they perform BSE, they will not continue the screening because they are sure that they have no imperfections on their breasts.

Based on all these studies, it is found that there were negative effects from the aspect of BSE result but this did not decrease its practice because in terms of advantages, it could save the lives of women from the threat of breast cancer. Similarly, the meta-analysis study by Hay McCaul et al.²³ has supported the findings of all studies by reporting that women are experiencing anxiety when they obtain their BSE results that they are likely to develop breast cancer ($r = 0.12$). Thus, the American Cancer Society continues to encourage all women to perform BSE every month as one of the methods to detect breast cancer.

Breast self-examination guide

According to the guidelines by Malaysia's Ministry of Health, Breast Self-Examination can be done in two steps. The first step is to look at the breast changes before the mirror and the second step is by detecting breast changes when you lie down. What you need to do in observing the changes of the breast before the mirror is to stand and remove the cloth until the waist level and look at yourself in front of the mirror. Both hands are lifted up and self-examination is done from various breast angles. Then the hand is dropped on the sides and turn left and right to detect any changes in the breast. The breast muscles are firmed by strangling the waist and push downwards. At this point, attention should be paid to warning signs such as lumps at breasts or armpits, changes in the shape, abnormal size of the breasts, abnormal wrinkles or curves on the breasts, pulled inwards breast nipples and excessive bleeding or discharge from the breast nipples.

To detect changes by laying down, a person should lie to her left by bending both knees and placing a pillow or folded bath towel beneath the right shoulder to raise the part to be checked. Then, the right hand is placed under the head. The left hand is used to check the right breast. Three finger are used to check for any lumps or thickening. This lying down examination can use vertical massage method or circular motion method.

Breast examination with a vertical massage method can be performed by examining the entire breast in a vertical massage pattern, from the upper collarbone to the bra-line at the bottom and from the middle-line under the armpit. Left hand is used to start the first massage at the armpits. Light pressure rotation is done and then pressed firmly at this area to feel any lumps or thickening. Hands are moved slowly down the bra-line with light rotation and strong pressure at every place. At the bottom of bra-line, move about two centimeters to the left and straight towards the collarbone by doing rotations and pressing. Move up and down in sequence and cover the entire breast area.

Based on the study conducted by Halimah¹⁴ out of the 120 people surveyed, 39.2% of people had BSE once a month, 22.5% had BSE 2 to 4 months, 11.7% had BSE once a year, and 26.7% never performed BSE. This study found that many respondents conducted BSE on a monthly basis. Foster et al.²⁴ conducted a study of 1004 new patients diagnosed with breast cancer. The findings show that people who practice BSE from the beginning will be able to detect breast cancer as compared to patients who do not practice BSE. In addition, it is also found that BSE can help cure breast cancer with healing rates for 5 years. Overall, the study found that BSE had an association with early detection and increased breast cancer rate.^{25,26}

Conclusion

Breast cancer is mostly experienced by women around the world. Therefore, there is the needs for awareness about maintaining health so that it is not easy to get breast cancer. If one has awareness and always take care of her health, there is high possibility that breast cancer will not happen to the individual. In addition, it is important to spend some time to do self-examination to identify the early symptoms of breast cancer. Next, take a drastic step to see a physician if there are early signs of breast cancer. Early prevention is better before the disease becomes more serious. It is difficult to prevent if breast cancer is at a critical stage. Accordingly, it is better for each individual to pay serious attention to breast cancer disease. Most of the time, the medical fee for treating this disease is higher and it takes longer for recovery. The treating process of breast cancer takes months and even years. Individuals who suffered from breast cancer at critical stage is usually difficult to heal. There are even cases where breast cancer patients at critical levels give up on their treatment. Hence, early awareness of breast cancer is necessary for each individual to avoid the difficulty in treating it. The individual's attitude to prevent is better than the ignorant attitude which eventually leads to stressful burden when breast cancer attacks.

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Conflict of interest

Author declares that there is no conflicts of interest.

References

1. Donegon WL. Introduction to history of breast cancer. *Cancer of the breast*. 4th ed. Philadelphia: W.B. Saunders Publication; 1995:1–15.
2. Forest APM. Breast Cancer 100 years on what we have learnt. *Med J Malaysia*. 1996;51(1):163–173.
3. Spratt JS, Donegon WL, Sigdestad CF. Epidemiology and etiology. *Cancer of the breast*. 4th ed. Philadelphia: W.B. Saunders Publication; 1995:116–141.
4. Heiman R, Bradley J, Hellman S. The benefits of mammography are not limited to women ages older than fifty years. *Cancer*. 1988;82:2221–2226.
5. World Health Organization. Projections of mortality and burden of diseases to 2030. 2005.
6. Parkin DM, Bray F, Ferley J, et al. Global Cancer Statistics, 2002. *CA Cancer J Clin*. 2005;55(2):2–74.
7. Howe HL, Wingo PA, Than MJ, et al. annual report to nation on the status of Cancer (1973 Through 1998): featuring cancers with recent increasing trends. *J Natl Cancer Inst*. 2001;93(11):824–842.
8. Althuis MD, Dosier JM, Anderson WF, et al. Global trends in breast cancer incidence and mortality 1973-1997. *J Natl Cancer Inst*. 2005;(2):405–412.
9. Mettlin C. Global breast cancer mortality statistics. *CA Cancer J Clin*. 1999;49(3):138–144.
10. Parkin DM, Fernandez LMG. Use of statistic to assess the global burden of breast cancer. *Breast J*. 2006;12(1):70–80.
11. Yang L, Parkin DM, Li L, et al. Time trends cancer mortality in China: 1987-1999. *Int J Cancer*. 2003;106:771–783.
12. Seow A, Duffy SW, McGee MA, et al. Breast cancer in Singapore: trends in incidence 1968-1992. *Int J Epidemiol*. 1996;25(1):40–45.
13. Rosniza AHJ, Che R, Novel L. Prevention is better than cure: Pangkor Island's community acceptance of free health screening services. *Malaysian Journal of Society*. 2014;10(6):170–178.
14. Halimah J. Amalan pemeriksaan sendiri payudara dalam kalangan pelajar kolej kejururawatan. Tesis Master. Tidak diterbitkan, Faculty of Education, University of Malaya. 2008.
15. Atlanta G. American cancer society (1999-2000). Breast cancer facts and figures. Atlanta.
16. Horton JA. The women's health data book. A profile of women's health in the United States. Washington, DC: Jacobs Institute of Women's Health; 1995.
17. Bethesda MD. National cancer Institute. Annual mammography reduces mortality in older breast cancer. US. National Cancer Institutes of Health. 2007;20(814)–2743:
18. Baker LH. Breast self-examination among older women. *Health Education Research*. 1982;3:181–189.
19. Smith RA, Saslow D, Sawyer A, et al. American cancer society guideline for breast cancer screening: update 2003. *CA Cancer Journal Clinician*. 2003;53(3):141–169.
20. Rimer BK. Understanding the acceptance of mammography by women. *Annals of Behavior Medicine*. 1992;14(3):197–203.
21. Millar MG, Millar KU. Feelings and beliefs about breast cancer and breast self-examination among women in three age groups. *Family & Community Health*. 1992;15(3):30–37.
22. Foster RS, Lang SP, Costanza MC, et al. Breast self-examination practices and breast cancer stage. *New England Journal of Medicine*. 1978;299:263–270.
23. Hay JF, McCaul KD, Magnan RE. Does worry about breast cancer predict screening behaviors? A meta analysis of the prospective evidence. *Prev Med*. 2006;42(6):401–408.
24. Foster RS, Constanza MC. Breast self-examination practice and breast cancer survival. *Cancer*. 1984;53:999–1005.
25. <http://thestar.com.my/health/story.asp?story=file=/2006/3/12/health>
26. Huguley CM, Brown RL. The value of breast self-examination. *Cancer*. 1981;47:989–995.