ปัจจัยที่มีผลต่อการตรวจเต้านมด้วยตนเองในสตรีเขตเทศบาลเมืองร้อยเอ็ด
จังหวัดร้อยเอ็ด ประเทศไทย

นางวาสนา หลาบหนองแสง

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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ปีการศึกษา 2552

FACTORS AFFECTING BREAST SELF-EXAMINATION AMONG WOMEN IN
ROI ET MUNICIPALITY, ROI ET PROVINCE, THAILAND

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วาสนา หลาบหนองแสง: ปัจจัยที่มีผลต่อการตรวจเต้านมด้วยตนเองในสตรี เขตเทศบาลเมืองร้อยเอ็ด จังหวัดร้อยเอ็ด ประเทศไทย (FACTORS AFFECTING BREAST SELF-EXAMINATION AMONG WOMEN IN ROI ET MUNICIPALITY, ROI ET PROVINCE, THAILAND) อ.ที่ปรึกษา วิทยานิพนธ์ หลัก: อ.ดร.เขมิกา ยามะรัต, 86 หน้า

วัตถุประสงค์ของการศึกษาครั้งนี้ เพื่อศึกษาปัจจัยที่มีผลต่อการตรวจเต้านมด้วยตนเอง ของสตรีที่อาศัย ในเขตเทศบาลเมืองร้อยเอ็ด จังหวัดร้อยเอ็ด อายุระหว่าง 30-60 ปี ศึกษาโดยการสุ่ม ตัวอย่าง จำนวน 400 คน และใช้แบบสอบถาม ประกอบสัมภาษณ์ เป็นเครื่องมือในการวิจัย ซึ่ง ประกอบไปด้วย ข้อมูลด้านต่างๆได้แก่ ลักษณะทางประชากร ความรู้ เจตคติ และการปฏิบัติในการ ตรวจเต้านมด้วยตนเอง รวมทั้งบันทึกการสังเกตทักษะการตรวจเต้านมด้วยตนเอง และสังเกตทักษะ การตรวจกับหุ่นเต้านมจำลอง การศึกษาเก็บข้อมูลในเดือน เมษายน พ.ศ. 2553 การวิเคราะห์ข้อมูล ใช้สถิติเชิงพรรณนา ได้แก่ จำนวน ร้อยละ ค่าเฉลี่ย ค่าเบี่ยงเบนมาตรฐาน และใช้สถิติ Chi Square เพื่อทดสอบความสัมพันธ์ระหว่าง ตัวแปรอิสระและตัวแปรตาม

การศึกษาพบว่า กลุ่มตัวอย่างมีค่าคะแนนเฉลี่ย ทักษะการตรวจเต้านมด้วยตนเองอยู่ใน ระดับต่ำ ร้อยละ 53.0 การตรวจเต้านมด้วยตนเองมากกว่า 1 ปีหรือ นานๆครั้งเมื่อนึกได้มากที่สุด ร้อยละ 32.3 รองลงมาไม่เคยตรวจเต้านมด้วยตนเองเลย ร้อยละ 26.5

เมื่อนำมาวิเคราะห์ปัจจัยต่างๆที่มีผลต่อการตรวจเต้านมด้วยตนเองพบว่า ปัจจัยด้าน สถานภาพสมรส การมีบุตร การทราบและรู้จักวิธีการตรวจเต้านมด้วยตนเอง การที่มีญาติสายตรง ป่วยเป็นมะเร็ง ความรู้ เจตคติ ประสบการณ์และการปฏิบัติ ทักษะการตรวจเต้านมตนเองและกับหุ่น เต้านมจำลอง มีผลต่อการตรวจเต้านมด้วยตนเองอย่างมีนัยสำคัญทางสถิติ (P-valule < 0.05) ส่วนตัว แปรอื่นๆ ไม่มีความเกี่ยวข้องกับการตรวจเต้านมด้วยตนเอง

การศึกษานี้เสนอให้มีการสร้างจิตสำนึก โดยการรณรงค์ส่งเสริมให้มีการตรวจคัดกรอง มะเร็งเต้านมให้มากขึ้น เพื่อให้ประชาชนมีความรู้ ความเข้าใจ มีเจตคติที่ดีและมีทักษะในการตรวจ เต้านมด้วยตนเองได้ถูกต้อง

สาขาวิชา	การพัฒนาระบบสาธารณสุข	ลายมือชื่อนิสิต..
ปีการศึกษา	2552	ลายมือชื่อ อ. ที่ปรึกษาวิทยานิพนธ์หลัก....................

##5179156953: MAJOR HEALTH SYSTEMS DEVELOPMENT

KEYWORDS: BREAST CANCER, BREAST SELF-EXAMINATION

WASANA LABNONGSANG: FACTORS AFFECTING BREAST SELF-EXAMINATION AMONG WOMEN IN ROI ET MUNICIPALITY, ROI ET PROVINCE, THAILAND. THESIS ADVISOR: KHEMIKA YAMARAT, Ph.D., 86 pp.

The objectives of this research were to study the factors affecting breast self-examination among women in Roi Et municipality. The sample included 400 women aged 30 to 60. The research methodologies used included questionnaires for interviewing covering demographic data, knowledge, attitude, BSE practices, observation on BSE and observation breast model examination. Data was collected in April, 2010. Descriptive statistics was used in data analysis including the frequency, percentage, mean and standard deviation. Chi-square test was used to examine the association between independent and dependent variables.

The results of this research shown that 53.0% of women in the sample had low level skills the most average level. 32.3% of these women did more than once a year or longer. 26.5% never did BSE.

When analyzing the factors affecting, this research revealed that marital status, motherhood, knowing the methods of BSE, having a close relative with cancer, knowledge, attitude, experiences and behavioral practices, BSE skills, and using a breast model all contributed in a statistically significant way to breast model all (contributed in a statistically significant way to BSE (P-value <0.05). Other variables did not associate with BSE.

Creating awareness about breast cancer screening should focus on running a campaign to promote educational materials to develop a better understanding of BSE and to strengthen women's attitude and skills to help them examine their breast correctly.

Field of Study: Health Systems Development   Student's Signature.................

Academic Year: 2009   Advisor's Signature.................

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

BSE   Breast Self-Examination

WHO   World Health Organization

ACS   The American Cancer Society

NCCN   National Comprehensive Cancer Network

HOSxP   Hospital Operating Systems Windows Program

CHAPTER I
INTRODUCTION

1.1 Background and Rationale

Breast cancer is the most common cancer in women worldwide, comprising 16% of all female cancers. It is estimated that 519,000 women died in 2004 due to breast cancer and although is thought to be a disease of the developed world, a majority (69%) of all breast cancer deaths occurs in developing countries (WHO, 2008). In the 1970s and 1980s age-standardized incidence increased by 2 % each year (Quinn et al, 2001). It causes the death of many women. In the United States, breast cancer affects women of all ages (Allen and Phillips, 1996). The American Cancer Society (ACS) in 1999 reported that 180,000 American women suffered from breast cancer in 1997 (Holm et al, 1999). In the same year, 43,900 women died from the disease. In the early 1980s, the rate of breast cancer progression during the period for women over 50 years of age and less than 50 years old were 5.8% and 2.9% respectively. Between 1986 and 2001, breast cancer increase rates 4.8% per year in women aged over 50 years (Ries et al, 2006). The number of global cancer deaths is projected to increase 45% from 2007 to 2030 (from 7.9 million to 11.5 million deaths), influenced in part by increasing and aging global population. The estimated rise takes into account expected slight declines in death rates for some cancers in high resource countries. New cases of cancer in the same period are estimated to jump from 11.3 million in 2007 to 15.5 million in 2030. (WHO, 2008) This was largely due to the greater availability of information about breast cancer and methods of its early detection.

Incidence rates vary greatly worldwide, with age standardized rates as high as 99.4 per 100,000 in North America. Eastern Europe, Southern Africa, and Western Asia have moderate incidence rates, but there are increasing (WHO, 2008).

Breast cancer survival rates vary greatly worldwide, ranging from 80% or over in North America, Sweden and Japan to around 60% in middle income countries and below 40% in low income countries (Coleman, 2008). The low survival rates in

less developed countries can be explained mainly by the lack of early detection programmes, resulting in a high proportion of women presenting with late stage disease, as well as by the lack of adequate diagnosis and treatment facilities.

Between 1997 and 2000 breast cancer in women in Thailand each year; from 1.6% in 1997, to 1.7% in 1998, to 2.6% in 1999, and 3.6% in 2000 (Surira Charansil, 2002). Incidences of breast cancer go up from 50% amongst women between the ages of 35 and 40 to 53% amongst women between the ages of 65 and 69. In 1996, breast cancer was the third leading cause of death in Thailand; with a mortality rate of 48.9% of cancer patients. In 1999, it was second cause of death with 60.5 per 100,000 populations. In 2002, increased to 65.4 per 100,000 populations (National Cancer Institute Thailand, 2007). In 2008, statistics from the National Cancer Institute found that breast cancer constituted 43% of all cancers in women (National Cancer Institute Thailand, 2008). The most common cancers affecting women in Thailand include breast, cervical, intestine, colorectal, lung and liver cancer. Statistics also showed that the numbers of patients with breast cancer is likely to increase. According to the National Cancer Institute, between 2005 and 2008 the number of patients with breast cancer was a high. The rate increased from 40% in 2005 to 43% in 2008 (National Cancer Institute Thailand, 2009).

In 2007, the cancer statistics from Roi Et Hospital found that the total number of new cancer patients was 1,065; 50.23% amongst them were men and 49.77% were women. The average age of all cancer patients was 59.41 years old. Common cancer of women in the most of five cancers of women to access service from Roi Et hospital were liver cancer and bile duct cancer (43%), breast cancer (9.1%), cervical cancer (6.01%), colorectal cancer (5.45%), bowel cancer and lung cancer (5.45%) respectively. 52.21% of breast cancer patients are between 40 and 59 years old. If these patients are divided into the different stages of their cancer, they will be as follows: 9.38% in stage 1, 57.29% in stage 2, 20.83% in stage 3, 2.08% in stage 4. The remaining 10.42% of these patients could not have their cancer stage identified (Chitkhet Tohmhuan, 2009).

Primary care teams have an important part to do in encouraging women to attend for screening and in providing information, advice, and reassurance at all stages of the screening process.Therefore be promoted as a primary screening procedure.

There is a case to be made for women to become more "breast aware" (Austoker, 1994). The campaign "Healthy Thailand 2007" encouraged women to do breast self-examination. The campaign, which aimed to have women, aged 20 form 80% of the target group, encouraged BSE. BSE once a month could help detect cancer at an early stage (Lierman et al, 1990). Women over 40 years old should have breast self examination every month but should also have the full format Grammy every one or two years (Brailey, 1996). BSE has not been shown to be effective in reducing breast cancer mortality, but it does increase the number of screening breast biopsies performed because of false-positive (Elmore, 2005).

Encouraging women to have BSE is believed to be an important factor in helping women gain greater awareness and understanding of their breast and how to check for any abnormalities. BSE helps with early detection and can prevent the disease from spread to other parts of the body. If caught early, the survival rates among breast cancer patients can be as high as 98% (Nunthaporn Adirekchotekul, 2000).

This Researcher's interest is to study the factors that affect BSE among women between the ages of 30 and 60 in Roi Et municipality. The results of this study will help raise awareness of the correct way of doing BSE. By encouraging women interested in self-care to examine their breasts regularly, we will be able to create a larger group of women who can help increase the risks of catching the disease early. Furthermore, by promoting the knowledge and skills associated with BSE, the death rate from breast cancer can be reduced especially among women in the high risk category. The campaign to raise awareness about breast cancer is supported by the operational budget of the Thai government as well the private sector specializing in public relations.

1.2 Research Questions

1. What are the factors affecting BSE among women in Roi Et municipality?

2. What kind of skills associated with BSE do women in Roi Et municipality use?

1.3 Objectives

1. To study the factors affecting BSE among women in Roi Et municipality.

2. To identify and study the correct skills needed for BSE among women in Roi Et municipality.

1.4 Key Words

Breast cancer

Breast self-examination

Breast Model

1.5 Research Limitations

1. By choosing to study the factors affecting of BSE, this research needs to find informants who are willing to have private parts of their bodies looked and discussed.

2. Because of the predominantly traditional culture of the women under study, the majority amongst them are uncomfortable discussing BSE since they consider it to be a private and personal issue.

1.6 Problems and Obstacles

1. The target group is composed of professional women working for the government. As such, they were only available for interviews between 16.00 and 20.00, on weekend and during the holidays.

2. The necessary to ensure the premises where breast cancer self-evaluation skills can be carried out are both completely secure and private. It was therefore necessary to use a private room or bathroom for this purpose. Breast model was used to demonstrate and evaluate BSE skills.

1.7 Definitions

1. BSE means feeling the breast and developing self-awareness about its nature in order to detect any abnormalities.

2. Breast model examination means using a silicone breast model to demonstrate how to BSE should be done to detect any abnormalities in the breast.

3. Knowledge refers to the knowledge about BSE.

4. Attitude means feeling towards the need for BSE.

5. Breast examination skills mean the correct skills needed when carrying out both manual breast examination and examination using a silicone breast model.

1.8 Research Utilizations

1. To bring research results to use in promoting correct BSE among women in the risk groups.

2. To use the findings in the health policies to promote prevention of breast cancer.

3. To promote, prevent, and continue breast cancer screening manually by expanding the network of the women self-care, their families and communities.

CHAPTER II
LITERATURE REVIEW

This study focus on the factors affecting BSE among women in Roi Et municipality, Roi Et Province, Thailand. The bases of this research include study of the existing theories around this issue, textbooks, and academic journals. The following are the topics to be addressed in this research:

1. What is breast cancer?

2. Causes and risk factors

3. Symptoms

4. Diagnosis

5. Treatment

6. BSE and breast model skills

7. Review of related literature

2.1 What is breast cancer?

Breast cancer is a group of diseases that cause cells in the body to change and grow out of control. Most types of cancer cells form a lump or mass called a tumor and are named after the part of the body where the tumor originates. Breast cancer begins in the breast tissue, which is made up of glands for milk production, called lobules, and the ducts that connect lobules to the nipple. The remainder of the breast is made up of fatty, connective, and lymphatic tissue (Desantis, 2007). Breast cancer is found less in men with only 1 out of 100 being affected (Puangthong Kraipiboon, 2006).

2.2 Causes and Risk Factors

A risk factor is anything that affects your chance of getting a disease, such as cancer. Different cancers have different risk factors. For example, exposing skin to strong sunlight is a risk factor for skin cancer. Smoking is a risk factor for cancers of

the lung, mouth, larynx (voice box), bladder, kidney, and several other organs (ACS, 2009).

Reproductive hormones are thought to influence breast cancer risk. Taking hormone replacement therapy (HRT), which combines estrogen and progestin, has been shown to increase breast cancer risk, with higher risk associated with its longer use. Menopausal women taking HRT also increase their risk of developing breast cancer (Fogel and Woods, 1995). Taking HRT over a long period of time, ten years or more, is also thought to increase the risk of having breast cancer (Henderson et al, 1988). High breast tissue density (a mammographic indicator of the amount of glandular tissue relative to fatty tissue in the breast) has been shown to be a strong independent risk factor for the development of breast cancer. In several studies, women with high levels of breast density are found to have a 4 to 6 fold increased risk of breast cancer, compared with women with the less breast density (Boyd, et al 2007).

2.3 Symptoms

Early-stage breast cancer typically produces no symptoms (American Cancer Society, 2008). About half the patients have symptoms such as a painless hard and round lump. Movement has less area on the outer breast. It may feel similar to a soft sponge cube, clear or with rough edges. It is detected by the women themselves. If it is Paget's disease, it will have inflammation of the skin rash (eczema) or a bruise (encrustation) around the nipple and areola. If it is inflammatory breast cancer, less common signs and symptoms include breast pain or heaviness together with persistent changes to the breast. These include thickening, swelling and inflammation of the skin or the skin may be rough like the peel of an orange with a dimple, redness, and nipple abnormalities such as spontaneous discharge, erosion, inversion, or tenderness, skin dimpling, the nipple turning inward, and abnormal contour. When the symptoms include unequal breast bilateral, breast flattening or retraction, the risk of cancer diagnosis is usually higher. Other symptoms can be a lump under the armpit. If it spreads to the bones, the bones become painful causing high calcium in the blood and bone fragility. If it spreads to the lungs, the patient will have difficulty breathing and

suffer from fatigue. If it causes the wound surgery, will have to send out something, dry and itching symptoms. If it spreads to the central nervous system, it will have symptoms of brain. If it spreads to the liver, the skin will become dry and will have cracks, dropsy, and muscular dystrophy.

2.4 Diagnosis

Diagnosis requires collecting information about the medical history of the patient, physician and various other examinations and tests carried out in laboratories (Narin Worawut et al, 2003).

2.4.1. Medical history involves asking questions about the history of any abnormal shape of the breast, changes to the skin of the breast, risk factors, as well as other different symptoms as mentioned previously.

2.4.2. Physical examination involves checking the breast by hand to check for any immovable hard tissue mass. It also includes feeling the lymph node around the armpit and collarbone area. If a lump is found, further investigation will be required.

2.4.3. Laboratory tests and investigations include breast imaging radiation, ultrasound, frozen section and surgical pathology for diagnosis, taking a biopsy of the cells using a fine needle aspiration, incision biopsy, and excision biopsy. In addition, more specialized tests may need to be carried out for better diagnosis; for example xerography and thermography. It will represent to hot spots which it represents a higher metabolism.

Stages of Breast Cancer

Breast cancer can be divided into four clinical stages (ACS& NCCN, 2006).

Stage 1 the cancer is 2 centimeters or less and is confined to the breast (lymph nodes are clear). It has not spread to other part of the body.

Stage 2 The tumor is larger than 2 centimeters but no larger than 5 centimeters and has or has not spread to the axillary lymph nodes. However, it has not spread to other parts of the body.

Stage 3 The tumor is larger than 5 centimeters and has spread to axillary lymph nodes that are lumped together. It has not spread to other parts of the body.

Stage 4 The cancer has spread to other organs of the body. It has spread to the chest wall or the skin of the breast. Cancer has spread to the lymph nodes near the breastbone. Cancer may have also spread to other parts of the body.

2.5 Treatment

There are several cancer treatments. The doctor may use one or more methods including surgery, hormone therapy, chemotherapy, radiation therapy, and biologic therapy (American Cancer Society, 2008).

2.5.1 Surgery

2.5.1.1 Simple excision or Lumpectomy or Tumorectomy often follows the irradiated area with the remaining breast. The treatment of axilla breast cancer patients, with lumps 4 centimeters in size or smaller, includes removing the lump followed by radiation. It has been found that the survival rates in this case are not different from those of patients who have the entire breast removed.

2.5.1.2 Quadrantectomy or segmental mastectomy often involves removing nearby tissues and radiation together.

2.5.1.3 Simple or total mastectomy is followed by radiation in cases when there is a high risk of cancer affecting both breasts.

2.5.1.4 Removal of the affected breast, lymph node in armpit, and pectoralis major muscle (modified radical mastectomy) is used in cases where the lump is 4 centimeters or larger and has spread.

2.5.1.5 Removal of the breast, lymph node, pectoralis major and pectoralis minor muscle (radical mastectomy). This procedure is not used much at present.

2.5.2 Hormone therapy

Hormone therapy is used in cases where it is found the cancer is caused by hormones. The treatment includes giving the patient medication that is resistant to estrogen such as Tamoxifen and Nafoxadine, or removing the sources of hormone production such as the ovary, the adrenal gland, or the pituitary gland.

2.5.3 Chemotherapy treatment

Chemotherapy treatment uses medicine to weaken and destroy cancer cells in the body. It may use hormone or anti neoplastic agents. It can control the spread of cancer to other parts of the body. It is usually the main drug but combined with drugs such as 5-fluorouracil, doxorubicin, cyclophosphamide, methotrexate, or Cyclophosphamide. In addition, Vincristine or Tamoxifen may also be given to the patient for approximately 6 consecutive months. Patients with stage 3 breasts cancer patients may receive chemotherapy before surgery to reduce the size of the tumor, or they may have surgery followed by radiation therapy to prevent progression. If a patient is in stage 4, chemotherapy is used. Furthermore, to anticancer drugs and hormones may be detected in a receiver estrogen by Tamoxifen at least 5 years, but it may be increase the risks to the endometrial cancer.

2.5.4 Radiation therapy

Radiation therapy uses 5000-5300 cGy for 5-6 weeks, or may be embedded into the Radium mineral for tumor for 48 hours. It may be, or may provide an electron beam. It can be used in conjunction with other therapies to control pain by reducing the size of a large tumor. It is popular for after surgery in the 5000 cGy and can last 5 to 5.5 weeks. If it is used for the central area of the body, the lymph node to receive radiation therapy.

2.5.5 Biologic therapy

Biological treatment is disease forecasting uncertainties, immune resistance to hormone and other insurgency. If it does not metastasis to the lymph node, it will be better in forecast. If no treatment is administered, patients will be dead within 2-3 years. Approximately 30-40 % of patients will have the cancer metastasis within 10 years, but most of them will be metastasis within 2 years.

Breast Cancer Survival Rate by Stage

Health care professionals are able to be predicting a patient's survival rate based on the determined stage of breast cancer. The following chart is an approximate survival rate for each stage of breast cancer. Percentages will vary depending on individual medical situations, etc.

Stage	5-year Relative Survival Rate
0	100%
I	100%
IIA	92%
IIB	81%
IIIA	67%
IIIB	54%
IV	20%

Source: American Cancer Society (2008)

A five-year survival rate refers to the average number of patients who are still alive five years after diagnosis with a specific stage of breast cancer. Five-year survival rates do.

Severity of the disease

Breast cancer patients can survive the disease depending on several important factors (Puangthong Kraipiboon, 2006).

1. If the cancer is caught at an early stage, it maintains higher lost opportunity.

2. If the patient is generally in good physical health, it maintains higher lost opportunity.

3. Joint diseases are often obstacles to treatment as they lead to overall physical deterioration.

4. Age; the older the patient is the weaker the body is hence poorer tolerance of the treatment leading to a decrease in its effectiveness.

2.6 Breast Self-Examination

The Association of American Surgeons focuses on BSE, accounts for approximately 20-30% of all other types of screening (including consultation with the doctor and having a mammogram). Overall, there is much public support for BSE of people as it is thought to stimulate people's interest in health care and helps make health care accessible to all (Patpong Naweecharoen, 2008). There are three methods of breast cancer screening (Hallal, 1982).

2.6.1 BSE

BSE is an examination to search for any abnormality of the breast and the lymph node in the armpit. BSE is the first thing that all of women can do to help to prevent breast cancer because they are more familiar with their own body. When there is an abnormality after some practice women, they are able to notice it by themselves. BSE takes 5-10 minutes and can be carried in three different postures. It includes standing next to the mirror, checking while bathing, and lying down on back. These self-examination postures need to be carried in secure and private locations as they

need the patient to remove their clothes from the waist up. The detection principle is based on being both able to see and feel the breast (Ministry of Public Health, 2008).

2.6.1.1 Standing next to the mirror

1. While standing, put your arm down and look at your breasts in the mirror to notice any changes in how they appear, compare both such as redness, and abnormality discharge of the nipples.

2. Raise both arms above the head to view the front and size difference of the breast, look at the shape of the breast, look at skin and nipple for any swelling, redness, and dimpling or puckering of the breast.

3. Put both hands on your waist, contracting chest, look for any mass, abnormality in the skin, or check the whole breast area. Then breast will sag to the square and you can see nipples position and the balance of shape, look next two breast sag as see before or not.

2.6.1.2 Checking while bathing

1. For women with small breasts, check the breast with one hand while putting the other hand above the head while lying down on back.

2. For women with pendulous breasts, use the tip of the fingers to feel the breast from the bottom and go around the sides to feel the top of the breast.

2.6.1.3 Lying Down on Back

1. Lying down in a comfortable position, put a pillow or fabric roll under the right shoulder to examine the right breast.

2. Raising the right arm overhead to ensure the breast is flat. This method makes the detection of a tumor easier especially if it is on the outer thicker part of the breast where cancer is often found.

3. Using the three fingers to forefinger, middle finger and ring finger feel the entire breast and armpit. Key compression is not breast muscle, it will

feel like a lump found which this fact is not true. The same methods can be used to examine the left breast. (Ministry of Public Health, 2008).

How to feel-check the whole Breast Area

There are three patterns that can be used to check your breast area (Ministry of public health, 2008).

1. The vertical or clock pattern feel; the feel starts from the top near the nipple. The top of the fingers is moved in a circular, clockwise way and expands out to the breast base and armpit area. The second part of this examination is used to feel the tissue under the nipple and to gently squeeze the nipple to check for any abnormal growth or discharge.

2. Circle pattern starts from the top of the breast and moves to its base and from there the fingers move to the radius around the nipple and then the collar bone and armpit areas.

3. Grid pattern, to feel from under the breast to the collar bone, the fingers move from the lower exterior part of the breast to the collar bone. This method of feeling the breast involves using three fingers and moving them up and down to cover the whole breast.

BSE must be carried out in the right posture and using the right feels. However, it should also give importance to a thorough and effective self-examination (Ministry of public health, 2007).

Three method levels of pressing

1. Press gently to feel around under the skin.

2. Press the middle to feel the middle part of the breast.

3. Press harder to feel the depth of the area close to the lung wall.

A medical doctor should be consulted as soon as any disorder of the breast area is found (Ministry of Public Health, 2008). These disorders include.

1. When you notice a mass, a lump, and skin change.

2. When you notice swelling, redness, thickening, or breast skin change.

3. When you notice changes in the size and shape of the breast.

4. When there are changes to the chest wall; for example the skin turns rough like an orange peel, has a dimple or edema.

5. When the nipple flattens, retracts or becomes itchy.

6. When there is a discharge of blood from the nipple.

The best time for BSE, if a woman is menstruating, is between the 7th and 10th day of the menstrual cycle. Because there is no swelling around the breast area at this time of the cycle, any abnormalities can be detected more easily. For women going through the menopause, any time of the month is suitable for BSE. In order not to forget to do this, menopausal women should pick a day of the month when they will carry out the self-examination regularly. If a woman forgets to do this on the chosen day, she should do the self-examination the following day (Ministry of Public Health, 2007).

If any abnormalities are noticed after BSE a consultation with and a re-examination by a public health official should be sought immediately (Ministry of Public Health, 2008).

2.6.2 Breast examination by health personnel

Breast examination by health personnel includes doctors and nurses.

2.6.3 Mammography

Breast examination by mammography is the method to detect a tumor of the breast with X-ray radiation. It is an effective way to find a tumor when it is still very small and when there are generally no symptoms. According to the American Cancer Society, 2008, screening should be done as follows:

1. Women aged 20 or older should do BSE once a month.

2. At the age of 35, they should have a mammogram.

3. At 40, they should have a mammogram every year.

4. At the age of 50 or older, they should have one or two mammograms a year as recommended by their doctor.

Breast Model

Learning about the different methods of BSE can come from different sources including health officials, written instructions and documents, the media, and videos. But one other useful to learn about it is by using a breast model made of silicone. The breast model is flexible and can use abnormal growth-like lumps looks like a lump real flexibility, similar unknown substances, or abnormality in breast model (Sarawut Rimdusit et al, 2009).

The results from a study about using a breast model show that medical personnel in both public health centre and medical schools all agree about the benefits of developing artificial organs to help with detecting any abnormalities during breast examination. They also agree that this breast model can be a useful device when demonstrating or teaching about BSE as well (Sarawut Rimdusit et al, 2009). Using this model also helps women overcome the shyness they may feel about handling or talking about a private part of their body.

Another advantage of using a silicone breast model is that it can be an economical, thorough and convenient way of helping increase people's knowledge of BSE. Furthermore, it also contributes to raising people's awareness of health care matters. This is consistent with the policy of the Ministry of Health which aims to encourage people to do BSE. It is also essential for Thai public health officials to be seen implementing the Ministry of Health policy "Healthy Thailand".

In 2006, women aged 35 years or more constituted about 80 % of the total number of people who received the relevant instructions and skills associated with BSE following a BSE observation as shown in table 31.

Breast screening means that breast cancer can be detected at an early stage. It is an easy and economical method that women can do by themselves without the need for any special monitoring tools. If the different ways to do breast examination are followed correctly, they will help with the early detection of the disease. The primary goal of breast cancer screening is to reduce subsequent breast cancer mortality through early detection. Theoretically this should translate into reduced morbidity from the disease (Freedman, 2003).

Early diagnosis remains an important early detection strategy, particularly in low and middle income countries where the diseases is diagnosed in late stages and resources are very limited. There is strategy can produce increasing in proportion of breast cancers detected at an early stage of the disease to stages that are more to curative treatment(Yip et al, 2008).

2.7 Review Related Literatures

The following is a brief review of the documents and other research related to the effectiveness of BSE and about the knowledge, beliefs, attitude, and skills associated with this practice.

Kanlayanee Nakrit (1998) studied 280 women and found that 37.9% never had BSE.The most of common explanations given by these women included the fact that they did not see themselves as having to play the role of "inspectors" or they did not recognize the importance of breast screening.

Nuntaporn Adirekchotikul (1999) studied the relationship between age, occupation, income, and education and how this can be linked to receiving information and knowledge about breast cancer as well as the attitude women have about breast cancer. The study also looked at the role of the media in providing reliable information about breast cancer and breast cancer screening. The findings of this study revealed that television, for example, was seen by women as the most acceptable means of receiving information about breast cancer. Media surveys have shown that women used the news as the main source of information besides neighbors and colleagues. Television was the main information provider for these women who learn about the causes and incidence of breast cancer.

Parichart Choopradit (2000) studied clinics for menopausal women who to receive hormone replacement therapy.17% of these women had some knowledge about BSE and were already doing it.

Suwapat Leehpoonsap (2005) Found that a study on female medical professionals who worked in Chulalongkorn Hospital, Thai Red Cross Society 92.8% of nurses formed the largest number of women who did BSE every month, and who had BSE regularly every month 42.7%. 73.6% of these nurses said that the

reasons they did BSE was not because they suspected some kind of abnormality in their breasts. The results of this study found that knowledge about breast cancer, the positive attitude about breast cancer, and BSE were associated with behavior of BSE. Therefore, raising awareness about health issues and care should start in childhood and should include a focus on the necessary skills for the correct breast examination.

The comparative study undertaken by Kanchana Khumnoy (2007) Found that to look at the impact of the skills women develop after they had been trained to do breast examination in Yala municipality found that there was slight statistical difference in the average scores before and after these training sessions. Six months later, it was discovered that the majority of these women examine their breast correctly.

Rattanaporn Mhuanchan (2006) study of breast cancer screening found that 91.81% of women surveyed did not feel a lump on their breasts. When taking into account the age of the women in this study, women aged 40 and over could feel a mass before the most 5.66%. The level of knowledge they had before and after receiving some the breast examination training from 69.06% to 95%. 93% of these women said they were satisfied by the breast screening services.

Pornpimol Kummhuanwai (2006) studied BSE amongst public health personnel and the relationship between the different factors affecting BSE. 11.5% of those screened found some abnormality in the breast. When looking at the level of confidence in the BSE process, the study found that about half of the health professionals had moderate confidence in the use and effectiveness of this method. 63.0% could do BSE correctly; less than the indicator set by the Ministry of Public Health which was 80%.

Saranya Pantawong (2008) studied how village public health volunteers used breast cancer screening services and found that the use of these services was average at the village level.

Based on this review of existing literature and research on the subject, it can be concluded that breast cancer can be cured if it is detected at an early stage. When a mass of 2 centimeters in size is found around the breast and is treated, 85% of the patients will have a survival rate of 5 years period. When the cancer spread to the lymph nodes around armpit, the survival rate drops to 41% (Brailey, 1986). BSE to

detect abnormalities in the early stage is therefore essential and should be carried out on a regular basis.

The study found that women with regular BSE were 29% (Salazar, 1994) and 37% (Schlueter, 1982). These are also important for doctors, husbands, relatives, and friends, of breast cancer patients, and the experience of BSE people (Lierman et al, 1990).

Practical evidence-based strategies are needed for effective communication to the public to promote early detection of breast cancer, enhance breast cancer diagnosis, improve the quality of breast cancer treatment, support the information needs of breast cancer survivors, improve palliative care, and increase the sensitivity of end-of-life care for breast cancer ((Kreps and Sivaram, 2008).

BSE plays a small role in finding breast cancer compared with finding a breast lump by chance or simply being aware of what is normal for each woman. Some women feel very comfortable doing BSE regularly (usually monthly after their period) which involves a systematic step-by-step approach to exam the look and feel of their breasts. Other women are more comfortable simply looking and feeling their breasts in a less systematic approach, such as while showering or getting dressed or doing an occasional thorough exam. Sometimes, women are so concerned about "doing it right" that they become stressed over the technique. Doing BSE regularly is one way for women to know how their breasts normally look and feel and to notice any changes. The goal, with or without BSE, is to report any breast changes to a doctor or nurse right away. Women who choose to do BSE should have their BSE technique reviewed during their physical exam by a health professional. It is okay for women to choose not to do BSE or not to do it on a regular schedule. However, by doing the exam regularly, women get to know how breasts normally look and feel and women can more readily detect any signs or symptoms if a change occurs, such as development of a lump or swelling, skin irritation or dimpling, nipple pain or retraction (turning inward), redness or scaliness of the nipple or breast skin, or a discharge other than breast milk. Should women notice any change women should see their health care provider as soon as possible for evaluation Remember that most of the time, however, these breast changes are not cancer.

In sum, the study of BSE is extremely important and can be used to help with the planning process and the ways of improving outreach to the target group of high-risk women. It also helps with ensuring more effective, efficient BSE and coverage screening of the target group.

2.8 Conceptual Framework

Independent variable   Dependent variable

Demographic data
Age
Marital status
Education
Occupation
Health History
Number of children
Age of first pregnancy
Menstruation
Health personal condition of relatives

BSE

- Level of knowledge about BSE

- Level of attitudes about BSE

- Level of practices about BSE

- BSE skills and Breast model skills
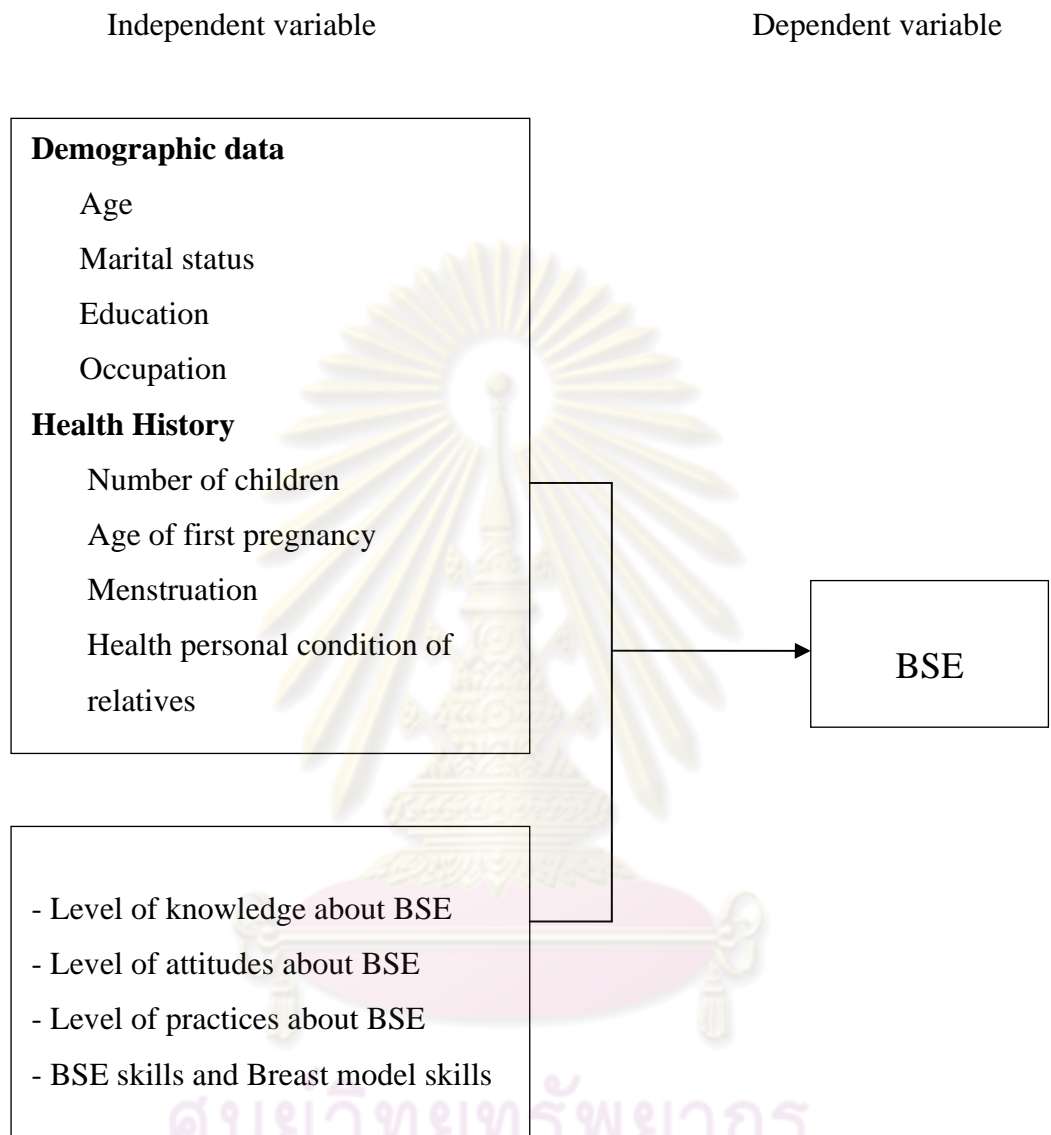
Figure 1: Conceptual Framework

CHAPTER III

METHODOLOGY

3.1 Research Design

This study is descriptive research which has collected data using interviews and questionnaires. The study focused on the factors affecting breast self-examination: BSE evaluation, and breast model examination among women in Roi Et Municipality, Roi Et Province, Thailand.

3.2 Population and Samples

The women studied were between the ages of 30 and 60 years old in Roi Et municipality. The samples were taken out of a database list "HOSxP"; a computer program used by Roi Et Hospital to keep base records on people in the area for health services provided. These data are base on house registration of the Ministry of Interior and list of people who live in the area. The women ages of 30-60 years old 5,863 people in 20 communities in Roi Et municipality as shown in Table 32.

The researcher used to calculate the size of the sample in percentage (P) site in (Sirichai Kanchanawasri et al, 2008)

$$N_P = \frac{NZ^2 P (1-P)}{NE^2 + Z^2 P (1-P)}$$

$$\text{Number of Sample} = \frac{(5,863 \times 3.84) (0.115 \times 0.885)}{(5,863 \times 0.0025)+(3.84 \times 0.101775)}$$

$$= \frac{(5,863 \times 3.84) (0.115 \times 0.885)}{(5,863 \times 0.0025)+(3.84 \times 0.101775)}$$

$$= \frac{(22,513.92)(0.101775)}{(14.6575)+(0.3908)}$$

$$= \frac{2291.35}{5.72815}$$

Number of Samples	=	400.01
N_P	=	Number of samples required
E	=	Allowance (0.05)
N	=	Number of women age 30-60 years old in Roi Et municipality. (5,863)
Z	=	Reliability 95%
P	=	Percentage of the primary variables studied already (11.5).

A study found that breast screening resulted in 11.5% of cases showing some kind of abnormality (Pornpimol Kummhuanwai et al, 2006).

3.3 Selected Samples

Participants from the sample size calculation 400 were random by selected from the data base list "HOSxP" using random number selection method. The researcher collected data from a target group every 15 of target group in Table 31.

3.4 Data Collection

3.4.1. The research used questionnaires when interviewing.

3.4.2. The research used BSE evaluation following the "Healthy Thailand" criteria set by the Ministry of Public Health, 2006 by the implementation of the application to the assessment.

3.4.3. The research used breast models developed by Chulalongkorn University to help with the evaluation of developing the necessary skills for BSE using breast models.

3.4.4. The data collection was selected by a nurse in the community using interviews and observation skills of BSE. Data was collected using the following methodologies:

        3.4.4.1 Demographic data questionnaire

        3.4.4.2 Questionnaire about the knowledge, attitude, and practice of BSE.

        3.4.4.3 BSE skills observation

        3.4.4.4 Breast model skills observation

3.5 Tools Testing of Research

The researcher used a number of tools to test the quality, content validity, and reliability of the research.

3.5.1. For content validity-the researcher used a questionnaire devised by a qualified public health official from Roi Et Hospital. The accuracy of the content was checked by three people. When comments and suggestions were from based on the analysis of these resource people.

3.5.2. Reliability the researcher led a test trial with women in the 30 to 60 age and living in areas outside the municipality including; Ban-nongyama. Muang Sub-district, Muang District, Roi Et Province. The researcher led a test trial of 30 sets by using the tested reliability by Cronbach's Alpha Coefficient values reliability of knowledge, attitude, and practice scale were 0.81, 0.74, and 0.91 respectively.

3.6 Data Collection Procedure

3.6.1. The Researcher outlined the purpose and objectives of this research and requested the cooperation. A letter authorizing this research was issued and approved by the Research Ethics Committee, Chulalongkorn University.

3.6.2. Data collection process involved the selection of a sample group of 400 women between the ages of 30 and 60 years old. The location to carry out this research was a regular basic community health center used medical staff responsible for the local communities. This medical team provides training and educational

programs on breast cancer and BSE. Then they elucidated to understanding with sample to the same standards in data collecting each 10 people in the overtime office on Saturday and Sunday. Introducing the researcher and medical team to the sample of women under study, the researcher and the medical team explained the purpose of the research and highlighted the importance of privacy, confidentiality and consent. The researcher was then able to start collecting the necessary data. Some of the women in the sample answered the questionnaires alone. The Researcher observed and recorded BSE skills and breast model skills. No women in the sample were paid for their contribution to this research. The location used to carry out breast cancer detection and self-evaluation was secure and undisclosed. After collecting data, the Researcher and health team offered some information about BSE to some women in the sample distributed educational pamphlets and compact discs (CD) on the different methods of BSE.

3.6.3. Data collecting from samples took one month.

3.6.4. The integrity checking of the questionnaire was coded and analyzed following statistical methods.

3.7 Data Analysis

The researcher used the analysis of data by instant SPSS version 17.

3.7.1. Descriptive Statistics

3.7.1.1 The average standard deviation of the minimum and maximum value.

3.7.1.2 Frequency distributions of percentage to present in the Table.

3.7.2. Inference Statistical

Study the association between the independent variables including age, marital status, education, occupations, family, medical history, personal background, knowledge, attitudes, practices, BSE skills, and breast model skills. BSE was tested by Chi-square test.

Part 1 Demographic data, personal background, services and family information

        1. General information included age, marital status, education, and occupation.

        2. Personal background and services included the number of children, age of first pregnancy, menstruation history, history of checking breasts for lumps and other abnormalities, and receiving service from public health facilities.

        3. Family medical history included data about breast lumps in other close relatives and having a relative with cancer.

Part 2 Knowledge

        A measurement of knowledge was 10 questions to test the knowledge level the women in the sample had of breast cancer. The criteria used to their level of knowledge are as follows:

Score Criteria Response: True 1 point   Response: False 0 point

        Breast cancer criteria levels of women age 30-60 years used criterion referenced by a full percentage rate of full marks total score 10. Score overview was divided into three levels high, moderate, and low.

Part 3 Attitude

        Attitude was measured by asking 10 questions about the level of BSE by using criteria level scores of attitude.

        The attitude rating requirement was divided into three levels.

Positive rated questionnaires.

        Agree   Scoring 3

        Unsure   Scoring 2

        Disagree   Scoring 1

Negative rated questionnaires

        Agree   Scoring 1

        Unsure   Scoring 2

        Disagree   Scoring 3

Breast cancer criteria levels of women age 30-60 years used criterion referenced by a full percentage rate of full marks total score 30. Score overview was organized in three levels high, moderate, and low.

Part 4 Experiences and behavioral practices

To measure practices, 10 questions were asked to test the level BSE by using criteria level scores of attitude.

The attitude rating requirement was divided into three levels.

Positive rated questionnaires.

Continually   Scoring   3

Rarely   Scoring   2

Never   Scoring   1

Negative rated questionnaire.

Continually   Scoring   1

Rarely   Scoring   2

Never   Scoring   3

Breast cancer criteria levels of women age 30-60 years used criterion referenced by a full percentage rate of full marks total score 30. Score overview was organized in three levels high, moderate, and low.

Part 5 BSE observation

To measurement BSE evaluation, five questions were asked adapting criteria level scores of the Ministry of Public Health (Healthy Thailand, 2006). Scores were in the range of 0-15 points.

Evaluation practices - all steps done correctly   Scoring 3

Evaluation practices- some steps done correctly   Scoring 2

Evaluation practices - all steps are incorrectly   Scoring 1

Breast cancer criteria levels of women age 30-60 years uses criterion referenced by a full percentage rate of full marks total score 15. Score overview is organized in three levels high, moderate, and low.

Part 6 Breast model observation

To measurement BSE by observing the sample group practice on silicone breast model. Scores were in the range of 0-15.

Evaluation practices-all steps done correctly   Scoring 3

Evaluation practices-some steps done correctly   Scoring 2

Evaluation practices-all steps are incorrectly   Scoring 1

Breast cancer criteria levels of women age 30-60 years used criterion referenced by a full percentage rate of full marks total score 15. Score overview was organized in three levels high, moderate, and low.

3.8 Research Ethics

The researcher offered the sample group information about the research, and answered their random questions before getting their willingness and agreement to take part in the research. The researcher explained the benefits that the research project. Volunteers did not benefit directly from this project: waste the time, and be embarrassed to answer questions or breast self-examination, and using the breast model examination. This research chose a secure and undisclosed location where interviewing and BSE were to be conducted without causing any embarrassment to the women in the sample group. In addition, and besides answering these women's questions about BSE, a manual with detailed instructions about BSE was distributed to some of the women who did not have much knowledge and skills about BSE.

The research respected the confidentiality of the information and did not disclose the identity of any of the women who contributed to this research project. No names will be published in the research report.

CHAPTER IV
RESULTS

The research studied the factors affecting BSE among women in Roi Et municipality, Roi Et Province, Thailand. Using questionnaires BSE observation and breast model observation. The data was analyzed by using statistical procedures that were divided into six parts.

1. Demographic Data
2. Knowledge about BSE
3. Attitude toward BSE
4. Experiences and behavioral practices BSE
5. BSE and breast model examination
6. The factors analysis associated to BSE

4.1 Demographic Data

The results found that 41.1% of the sample women were 40 to 50 year-old. They were 66.5% of marital status. Education level was 24.5% majority of upper secondary school. The samples 29.3% were the most employees. 77.2% had children. 66.8% had a history the first menstruation during 13 to 16 years old. The sample had been normal menstruation 79.8%. The sample knew how to do BSE the most to 82.8%. They had BSE 73.5%. Frequency of BSE once a year or rarely remembers was 32.3%. Sample 3.7% had breast lump; they have to do BSE 100%. Most of them had never check by mammography examination 96.5%. They had family member 5.3% that detected breast lump. Sample 18% had a direct relative cancer. Liver cancer 43.1% was the number-one of patients and mortality was 62.5% as shown in Table 1-3.

Table 1 Number and percentage of the sample by demographic data
classification. (n=400) (1)

Demographic Data	Number of sample	Percentage
Age (Years)		
30-39	132	33.0
40-50	164	41.0
51-60	104	26.0
$\overline{X} = 44.34$, $\pm$ S.D. $= 8.40$ Range = 30-60		
Marital Status		
Never married	132	33.0
Married	164	41.0
Widowed/divorced/separated	104	26.0
Education Levels		
Elementary school	90	22.5
lower Secondary school	55	13.8
Upper secondary school/ Vocational	98	24.5
High vocational certificate/ Diploma	51	12.8
Bachelor's degree	9	2.3
Occupations		
Agricultural worker	17	4.3
Employee	117	29.3
Trader	111	27.8
Housewife	58	14.5
Private company	27	6.8
Government employee official	63	15.8
Unemployed	7	1.8

Table 1 Number and percentage of the sample by demographic data classification. (n=400) (2)

Demographic Data	Number of sample	Percentage
First menstruation		
History		
10-12 years old	98	24.5
13-16 years old	267	66.8
17-19 years old	35	8.8
Current menstruation		
Normal	319	79.8
Abnormalities	7	1.7
Menopause	51	12.7
Hysterectomy	23	5.8
Motherhood		
No	91	22.8
Yes	309	77.2

Table 2 Number and percentage of the sample by knowledge and BSE classification. (n=400) (1)

Demographic Data	Number of sample	Percentage
Knowing the method of BSE		
No	69	17.3
Yes	331	82.8
Have done BSE		
No	106	26.5
Yes	294	73.5
Frequency of BSE		
Every month	75	18.8
Every 2-3 month	50	12.5
Every 4-6 month	21	5.3

Table 2 Number and percentage of the sample by knowledge and BSE
classification. (n=400) (2)

Demographic Data	Number of sample	Percentage
Once a year	19	4.8
Hardly ever, less than once a year	129	32.3
Never	106	26.5
Used to mammography		
No	386	96.5
Yes	14	3.5

Table 3 Number and percentage of the sample family history and cancer
classification. (n=400)

Demographic Data	Number of sample	Percentage
Family History		
No palpable lump	379	94.8
Palpable lump found	21	5.2
Direct relative cancer		
No	328	82.0
Yes	72	18.0
Types of cancer (n=72)		
liver cancer	31	43.1
cervical cancer	18	25.0
breast cancer	14	19.4
lung cancer and others	9	12.5
Current life of a cancer relative (n=72)		
Treatment process	13	18.06
Be cured	14	19.44
Dead	45	62.50

4.2 Knowledge about BSE

   The research results found that a high number of women in the sample, 80.8%, had good knowledge about the frequency of BSE; once a month. 68.5% knew the correct way of doing BSE and of the importance of catching breast cancer early. When assessing their knowledge of the cancer on one breast and so the other breast is not likely to develop cancer. It was found that 69.7% did not know how to do BSE correctly; firstly, women who had knowledge of the cancer on one breast and so the other breast is not likely to develop cancer. Secondly, women who had problems with the menopause starting early and lasting several years were more likely 65.5% to develop breast abnormalities or have cancer as shown in Table 4.

Table 4 Percentage of the sample by BSE knowledge classification. (n=400) (1)

Text	Correct	Incorrect and Unknown
1. Frequency of BSE once a month is the best.	80.8	19.2
2. Breast screening is only around the breast and needless around armpit.	43.3	56.8
3. Breast examination is 7-10 days after no menstruation or every month on the same day for menopause.	67.3	32.7
4. Women who have history about the problem of menopause early and finished slowly, they are high risk factors breast cancer.	34.5	65.5
5. You should have BSE when you feel only abnormality.	46.3	53.7
6. The breast should feel by the three fingers continuing without lifting finger.	66.3	33.7
7. Postures of breast examination are standing next the mirror, while showering, and lying down.	80.0	20.0

Table 4 Percentage of the sample by BSE knowledge classification. (n=400) (2)

Text	Correct	Incorrect and Unknown
8. Squeeze the nipple found that having blood or lymph come out from nipple. It means that you are the last stage of cancer.	43.5	56.5
9. You have history of breast cancer in one side, and one other side has no opportunity to be breast cancer again.	30.3	69.7
10. BSE correct steps and regular practices are the importance to search the early stage of breast cancer.	68.5	31.5

The study found that 62.0% of women in the sample had a moderate level of knowledge about breast cancer, 24.8% had low level of knowledge while the remaining 13.2% had high knowledge about the issue as shown in Table 5.

Table 5 Number and percentage of the sample by levels of BSE knowledge classification.

Knowledge Levels	Number of sample	Percentage
Low (0-4)	99	24.8
Moderate (5-7)	248	62.0
High (8-10)	53	13.2
Total	400	100

$\overline{X}$ = 5.6, S.D. = ± 1.64, Min = 2, Max = 10

4.3 Attitude about BSE

69.5% of women in this study had the correct attitude towards breast cancer; that it can be found by BSE. 55.8% said publicity and campaigns around the issue have helped motivate them to check for breast cancer by themselves. What we describe as "incorrect attitude" refers to women who think that feeling or touching one's breast is "disgraceful"; these constituted 38.8% of the sample. 29.8% thought

that early screening for breast cancer was the responsibility of medical personnel like doctors, nurses and public health officials as shown in Table 6.

Table 6 Percentage of the sample by of BSE attitude classification. (n=400)

Text	A comment		
	Agree	Unsure	Disagree
1. You can found breast cancer by yourself.	69.5	21.0	9.5
2. You are afraid that you will detect breast cancer and so you do not want to check.	21.0	34.0	45.0
3. Screening for abnormality of BSE is important and useful.	46.5	48.5	5.0
4. Breast self examination is useless.	25.0	49.5	25.5
5. Screening for early stage of breast cancer is the duty of doctors, nurses, and public health officials.	29.8	40.0	30.2
6. BSE is complicated, a waste of time, and does not give accurate results.	22.7	39.8	37.5
7. Publicity or campaigns motivate you to detect breast cancer by yourself on a more regular basis.	55.8	39.0	5.2
8. Having a breast removed because of cancer affects a woman's appearance and therefore can motivate women to have breast screening.	27.3	60.5	12.2
9. When you have a close relative or neighbor with breast cancer, you are more fearful and want to manually screen for cancer by yourself.	50.3	45.2	4.5
10. BSE is a "disgraceful" practice. The other people see or palpable mass the breast to detect breast cancer that is disgraceful for you.	38.8	21.2	40.0

The research result of samples with attitude of BSE was average moderate level 50.00%, high level 26.75% that shown in Table 7.

Table 7 Number and percentage of the sample by levels of BSE attitude
classification.

Attitude levels	Number of sample	Percentage
Low (0-19)	93	23.30
Moderate (20-23)	200	50.00
High (24-30)	107	26.70
Total	400	100

$\overline{X}$ = 22.0, S.D. = ± 3.42, Min = 12.0, Max = 30.0

4.4 Experiences and behavioral practices

The 51.1% of research result found that experiences and behavioral
practices had the most accurate and was to get knowledge about breast cancer
information from television, radio, newspaper, and journals. The 40.3% of sample had
been recommended by pamphlet on breast cancer from health volunteers. The 3% of
sample had an experience and behavioral practice that were much less to have breast
examination by mammography. In the one year past, 4% samples did not receive
breast examination by doctors or nurses as shown in Table 8.

Table 8 Percentage of the sample by experiences and behavior practices of BSE
classification. (n=400) (1)

Questions	Practices Level		
	Continually	Rarely	Never
1. Have you ever received knowledge about breast cancer from television, radio, newspapers, or journals?	51.5	40.7	7.8
2. Have you ever received a recommendation/pamphlet about breast cancer from health volunteers?	40.3	49.2	10.5
3. Have you ever received knowledge about BSE using three fingers and three levels of the feel (light, medium, and heavy)?	37.8	50.2	12.0

Table 8 Percentage of the sample by experiences and behavior practices of BSE classification. (n=400) (2)

Text	Practices Level		
	Continually	Rarely	Never
4. Did the family recommend that you check for breast cancer?	12.0	43.5	44.5
5. Have you ever had BSE using screening steps; looking for any abnormality and hand screening.	12.8	51.7	35.5
6. Are you interested in BSE and other methods?	10.8	48.7	40.5
7. Have you ever used a pamphlet guide to BSE?	11.5	54.0	34.5
8. Have you had BSE over the past twelve months?	17.5	54.7	27.8
9. Have you been screened by doctors or nurses over the past year?	4.3	6.3	89.5
10. Have you been screened by mammography over the past year?	3.0	1.0	96.0

The research result of samples with experiences and behavioral practices was moderate 59.00% and low level 23.00% that shown in Table 9.

Table 9 Number and percentage of the sample by levels of experiences and behavior practices.

Practice Levels	Number of sample	percentage
Low (0-14)	92	23.00
Moderate (15-21)	236	59.00
High (22-30)	72	18.00
Total	400	100

$\overline{X}$ = 18.02, S.D. = ± 4.40, Min = 10, Max = 30

4.5 BSE and breast model examination

The research result the sample of BSE found that BSE skill was low level 53.00% the most average level and 36.00% of moderate level as shown in Table 10.

Table 10 Number and percentage of the sample by levels of BSE skills.

BSE Levels	Number of Sample	percentage
Low (0-9)	212	53.00
Moderate (10-13)	144	36.00
High (14-15)	44	11.00
Total	400	100

$\overline{X}$ = 10.3, S.D. = ± 1.93, Min = 5, Max = 15

The research results on breast model examination using a model breast found that 69.80% of women had a moderate level of skills while 24.00% had a low level of skills as shown in Table 11.

Table 11 Percentage of the sample by evaluating the skill levels of breast model examination.

Breast model examination levels	Number of sample	Percentage
Low (0-9)	96	24.00
Moderate (10-13)	279	69.80
High (14-15)	25	6.20
Total	400	100

$\overline{X}$ = 10.47, S.D. = ± 1.59, Min = 7, Max = 15

4.6 Analysis of factors associated between BSE

Age was the factor analysis associated between BSE of the sample that was more than 50 years old. The research result found that 77.88% had BSE. 73.17% and 70.45% were age group 40 to 50 years and age group less than 40 years, respectively. When testing the association found that age was not associated with BSE as shown in Table 12.

Table 12 Factors associated between BSE with age. (number and percentage)

Age	BSE		Total
(Year-old)	Never	Ever	
30-39	39 (29.55)	93 (70.45)	132 (100)
40-50	44 (26.83)	120 (73.17)	164 (100)
51-60	23 (22.12)	81 (77.88)	104 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 1.664, df = 2, p = .435

The marital status was the factor analysis associated to BSE. The research result found that sample the marital status had BSE the most 81.20%. Widowed, or divorced, or separated status was 69.23% and never married status was 47.83%. When testing the association found that the married status was associated with BSE and was associated with significant statistically as shown in Table 13.

Table 13 The factors associated between BSE with marital status (number and percentage)

Marital Status	BSE		Total
	Never	Ever	
Never married	36 (52.17)	33 (47.83)	69 (100)
Married	50 (18.79)	216 (81.20)	266 (100)
Widowed/divorced/separated	20 (30.77)	45 (69.23)	65 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 34.453, df = 2, p = .000

Education levels were the factor analysis associated to BSE. The research result found that the group of bachelor degree and higher education 79.25% were the most to have BSE. Secondary and elementary educations were 77.85% and 64.83%. When testing the association found that education was associated with BSE and was associated with significant statistically as shown in Table 14.

Table 14 The factors associated between BSE with levels of education (number and percentage)

Education Levels	BSE		Total
	Never	Ever	
Elementary/lower Secondary school	51 (35.17)	94 (64.83)	145 (100)
Upper secondary school/Vocational high/Vocational certificate	33 (22.15)	116 (77.85)	149 (100)
Bachelor degree and higher	22 (20.75)	84 (79.25)	106 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 8.845, df = 2, p = .012

Occupation was another factor associated to BSE. Government officials and private company employees formed the majority of women in the sample that had BSE; 78.35%, followed by women traders and housewives; 72.78%. These were followed by women working in agriculture and employee at 70.90%. When testing the association between occupation and BSE, found that was not associated with BSE as shown in Table 15.

Table 15 The factors associated between BSE with occupation. (number and
percentage)

Occupations	BSE		Total
	Never	Ever	
Agriculture/employee	39 (29.10)	95 (70.90)	134 (100)
Trade/Housewife	46 (27.22)	123 (72.78)	169 (100)
Government officials/company employees/Others	21 (21.65)	76 (78.35)	97 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

$\chi^2 = 1.683$, df = 2, p = .431

Motherhood was one factor analysis associated with BSE. The research
result found that mothers were more likely to do BSE than women without children;
79.94% and 51.65% respectively. This is statistically significant as shown in Table 16.

Table 16 The factors associated between BSE with motherhood. (number and
percentage).

Motherhood	BSE		Total
	Never	Ever	
No	44 (48.35)	47 (51.65)	91 (100)
Yes	62 (20.06)	247 (79.94)	309 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

$\chi^2 = 27.445$, df = 1, p = .000

Age of the first menstruation was the factor analysis correlated with BSE.
The research results found that sample 10 to 12 years old were the first age of
menstruation group. Age 13 to 16 years were 73.78% were aged 13 to 16 and 65.71%
were between 17 to 19 years old. When testing the associate between age and breast
self examination, it was found that the age of the first menstruation was not associated
with BSE as shown in Table 17.

Table 17 Factors associated between BSE with the first age of menstruation.
(number and percentage)

The first age of menstruation (Year-old)	BSE		Total
	Never	ever	
10-12	24 (24.49)	74 (75.51)	98 (100)
13-16	70 (26.22)	197 (73.78)	267 (100)
17-19	12 (34.29)	23 (65.71)	35 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

$\chi^2 = 1.304$, df = 2, p = .521

     Menopause was the one factor analysis that was closely related to BSE. The research result found that 70.97% of women in the sample were menopausal; between 42 and 50 years old. They formed the largest number of women to do BSE. 60.00% of them were between 51 and 60 years old. When testing the association found that the menopause was not associated with BSE as shown in Table 18.

Table 18 Factors associated between BSE with menopause.(number and percentage)

Menopause (Year-old)	BSE		Total
	Never	Ever	
42-50	9 (29.03)	22 (70.97)	31 (100)
51-60	8 (40.00)	12 (60.00)	20 (100)
Total	17 (33.33)	34 (66.67)	51 (100)

$\chi^2 = .257$, df = 1, p = .612

     Menstruation was another factor associated with BSE. The research result found that women with menstruation abnormalities were more likely to have BSE; 85.72%. Amongst these, 82.61% had hysterectomy, 73.67% had normal menstruation, and 66.67% were going through the menopause. When testing the association between menstruation and BSE, found that was not associated with BSE as shown in Table 19.

Table 19 Factors associated between BSE with menstruation. (number and
percentage).

Menstruation	BSE		Total
	Never	Ever	
Normal menstruation	84 (26.33)	235 (73.67)	319 (100)
Abnormalities menstruation	1 (14.28)	6 (85.72)	7 (100)
Menopause	17 (33.33)	34 (66.67)	51 (100)
Hysterectomy	4 (17.39)	19 (82.61)	23 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 2.906, df = 3, p = .574

　　　　Knowledge of the different methods of BSE was also linked to BSE. The
research result found that 88.82% of women in the sample knew the methods of BSE.
They were the largest group to have BSE. When testing the relationship between the
two factors, it was found that knowing the methods of BSE was associated with BSE
in a statistically significant as shown in Table 20.

Table 20 Factors associated between BSE with knowing the methods of BSE
(number and percentage).

To know the method of BSE	BSE		Total
	Never	Ever	
Unknown	69 (100)	0	69 (100)
Know	37 (11.18)	294 (88.82)	331 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 226.734, df = 1, p = .000

　　　　Mammography examination was another factor analysis association to
BSE. The results showed that all women in the sample (100%) who had had
mammography did BSE afterwards. When testing the association between
mammography and BSE, the research found that there was significant statistically as
shown in Table 21.

Table 21 Factors associated between BSE with mammography.(number and percentage)

Mammography Examination	BSE		Total
	Never	Ever	
Never	106 (27.46)	280 (72.54)	386 (100)
Ever	0	14 (100)	14 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 3.916, df = 1, p = .048

To feel the breast lump of a close relative was the factor analysis associated to BSE. The results showed that women in the samples were direct relative to feel the breast lump, was found BSE rather than feel no breast lump. They were 85.71% and 72.82%. When testing the association, the research found that feeling the breast lump of a close relative was not associated with BSE as shown in Table 22.

Table 22 Factors associated between BSE with direct relative to feel the breast lump. (number and percentage)

Feeling Breast Lump	BSE		Total
	Never	Ever	
No	103 (27.18)	276 (72.82)	379 (100)
Yes	3 (14.29)	18 (85.71)	21 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 1.100, df = 1, p = .294

Having a close relative with cancer was a factor analysis association of BSE. The results found that women in the sample who had a close relative with cancer were more likely to do BSE (83.33%) than those that have no relatives with breast cancer (71.34%). When testing the association between these two factors, it was found having a close relative with breast cancer was not associated with BSE as shown in Table 23.

Table 23 Factors associated between BSE with direct relative cancer. (number and percentage)

Cancer	BSE		Total
	Never	Ever	
No	94 (28.66)	234 (71.34)	328 (100)
Yes	12 (16.67)	60 (83.33)	72 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 3.765, df = 1, p = .052

Types of cancer; research results found that the most common cancer suffered by a close relative of women in the sample was liver cancer; 100%. 88.89% were affected by cervical cancer and 80.65% by breast cancer. Lung cancer and other cancers affected 55.56%. When testing the association between types of cancers suffered by close relatives and BSE, the research found that there was significant statistically as shown in Table 24.

Table 24 Factors associated between BSE with other types of cancer affecting close relatives. (number and percentage)

Types of cancer	BSE		Total
	Never	Ever	
liver cancer	0	14 (100)	14 (100)
cervical cancer	2 (11.11)	16 (88.89)	18 (100)
breast cancer	6 (19.35)	25 (80.65)	31 (100)
lung cancer and others	4 (44.44)	5 (55.56)	9 (100)
Total	11 (15.28)	61 (84.72)	72 (100)

χ^2 = 9.961, df = 3, p = .041

Current the live of a cancer relative, the result found that the sample of a cancer relative 100% could be cured and they were the most BSE. Mortality was 80% and treatment processing was 78.57%. When testing the association found that current the life of a cancer relative was not associated with BSE as shown in Table 25.

Table 25 Factors associated between BSE with current the life of a cancer relative.
(number and percentage)

Live current	Breast self examination		Total
	Never	Ever	
Treatment processing	3 (21.42)	11 (78.57)	14 (100)
cured	0	13 (100.00)	13 (100)
Dead	9 (20.00)	36 (80.00)	45 (100)
Total	11 (15.28)	61 (84.72)	72 (100)

$\chi^2 = 3.189$, df = 2, p = .203

Knowledge-The results of this research showed that women in the sample had a high level of knowledge about BSE; 94.34%, 89.08% had a moderate level of knowledge and 33.34% had a low level of knowledge. When testing the association between knowledge of breast cancer and BSE, the research found that there was significant statistically as shown in Table 26.

Table 26 Factors associated between BSE with knowledge levels of BSE.
(number and percentage)

Knowledge	BSE		Total
	Never	Ever	
Low (0-4)	66 (66.66)	33 (33.34)	99 (100)
Moderate (5-7)	37 (14.92)	211 (89.08)	248 (100)
High (8-10)	3 (5.66)	50 (94.34)	53 (100)
Total	106 (26.5)	296 (73.5)	400 (100)

$\chi^2 = 110.897$, df = 2, p = .000

Attitude-the results of this study showed that 89.72% of women in the sample did BSE the most. 75.50% had an average level while 50.54% had low level of BSE. When testing the relationship between attitude and BSE, the research found that there was significant statistically as shown in Table 27.

Table 27 Factors associated between BSE with attitude levels of BSE. (number and
percentage).

Attitude	BSE		Total
	Never	Ever	
Low (0-19)	46 (49.46)	47 (50.54)	93 (100)
Moderate (20-23)	49 (24.50)	151 (75.50)	200 (100)
High (24-30)	11 (10.28)	96 (89.72)	107 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 40.039, df = 2, p = .000

Practices-the research results showed that women in this sample had a high
practice level of BSE; 97.22%. 89.40% had moderate level and 14.13% had low level
practice. When testing the relationship between these two factors, it was found that
there were statistically significant association between practices and BSE as shown in
Table 28.

Table 28 Factors associated between BSE with practice levels of BSE. (number and
percentage)

Practices levels	BSE		Total
	Never	Ever	
Low (0-14)	79 (85.87)	13 (14.13)	92 (100)
Moderate (15-21)	25 (10.59)	211(89.40)	236 (100)
High (22-30)	2 (2.78)	70 (97.22)	72 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

χ^2 = 211.948, df = 2, p = .000

BSE skills-The results of this study found that all women in the sample
(100%) were the most breast self examination. 79.17% had moderate level skills.
When testing the association between these two factors, it was found that, statistically,
there was significant association of BSE skills and BSE as shown in Table 29.

Table 29 Factors associated between BSE skills with BSE. (number and percentage)

Level of Breast self examination skills	BSE		Total
	Never	Ever	
Low (0-9)	76 (35.85)	136 (64.15)	212 (100)
Moderate (10-12)	30 (20.83)	114 (79.17)	144 (100)
High(13-15)	0	44 (100)	44 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

$\chi^2 = 27.751$, df = 2, p = .000

Breast model examination skills-the results of this study found that all women in the sample (100%) had high level skills of breast model examination, while 74.29% had moderate level and 66.67% had low level. When analyzing the association between these two factors, it was found that there was a statistically significant association between breast model examination skills and BSE as shown in Table 30.

Table 30 Factors associated between BSE with breast model examination. (number and percentage)

Levels of Breast model examination skills	BSE		Total
	Never	Ever	
Low (0-9)	32 (33.33)	64 (66.67)	96 (100)
Moderate (10-13)	74 (26.81)	205 (74.29)	276 (100)
High (14-15)	0	25 (100)	25 (100)
Total	106 (26.5)	294 (73.5)	400 (100)

$\chi^2 = 11.315$, df = 2, p = .003

CHAPTER V
SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Summary

This study was a descriptive research. The objectives of the research were to study the factors affecting and the skills associated to BSE among women between the ages of 30 to 60 years in Roi Et municipality, Roi Et Province, Thailand. The sample included 400 people chosen random sampling. The research used questionnaires to collect demographic data and other data about knowledge, attitude, BSE practice, BSE skills and breast model examination skills. The questionairs were validated for content validity by experts and tested reliability by Cronbach's Alpha Coefficient values reliability of knowledge, attitude, and practice were 0.81, 0.74, and 0.91 respectively.

The data was collected by sample interviewing. BSE observation was carried out in April, 2010. Descriptive statistics was used in data analysis including; percentage, mean, Standard deviation and statistical analysis were Chi-square test.

The results of this research showed that the overall sample had a low level of skills of BSE were 53.0% the most average level. Levels of knowledge, attitude and practice were moderate at 62.0%, 50.0% and 59.0% respectively. 32.2% of women in the sample examined their longer than once year the most. 26.5% never had BSE. Most of them had never check by mammography examination 96.5%.

This research analyzed the factors affecting BSE and found that there were several such factors that were also statistically significant (P-value <0.05). They include marital status, motherhood, knowing the methods of BSE, having a close relative with cancer, knowledge, attitude, practices, BSE skills and breast model skills. Other variables were not associated with BSE.

Discussion

        1. Demographic data of the sample found that most married women in the sample (81.2%) did BSE. The results of this study were consistent with previous findings which shown that women who have friends or relatives with breast cancer are more motivated to do BSE (Lierman et al, 1991). 79.2% of women with bachelor's degree or higher education were more likely to do BSE. This result was consistent with cancer knowledge to motivate frequency among higher knowledge women to BSE more than lower knowledge women in cancer. Knowledge could help people to practice (Prakaithip Chanpirom, 1998). Women with higher education were able to recognize the benefits of BSE operating height (Champion, 1988). The findings also shown that mothers were more likely to do BSE are women with children 79.9% as opposed to 51.6% for women with no children. Mothers gain more knowledge about BSE after delivery. It was found that the methods of BSE were associated with having relevant information provided in pamphlets. The findings were statistically significant. The result found that they were better BSE to get knowledge as statistically significant (Supaporn Mahawan, 2001).

        2. The levels of average skills associated with BSE was low 53.0%. Breast model examination was moderate 69.8%. The study was consistent with the findings in health volunteers. Evaluation the skills of BSE were moderate (Saranya Pantawong, 2008).

        3. Women who examined their breasts regularly (every month) at 18.8% of total sample. 26.5% never did BSE because they said they did not know how to do it. The study was consistent with another study including 280 women which found that 37.9% of them had never done BSE (Kanlayanee Narkrit, 1998). The study found that women were 29% BSE regularly (Salazar, 1994). Most physicians agreed that before the recommendation they almost taught BSE (74.3%). Only 9.5% agreed that physicians should follow the recommendation and not routinely teach BSE.A few also agreed that they now spend less time discussing BSE (25.7%). Physicians who had changed their BSE practices increases early detection of breast cancer and more likely to agree that BSE increases benign breast biopsies (Del et al, 2005).

4. The majority of women in Roi Et municipality do not have access to mammography screening (3.5%).Although mammography screening is the gold standard for early detection of breast cancer (Smith, 2004). The evidence suggests that a breast cancer screening program by offering mammography every 2 years to women between ages 50 and 65 years and ages 40 to 49 years, then it should be offered every 12 to 18 months, because the period during which a tumor is asymptomatic but detectable with screening (Tabar, 1995). Education programs increased awareness of BSE for age group at high risk can be implemented at the breast cancer healthcare providers in the field when resources are available and accessible in Roi Et municipality area.

Recommendation

1. The research results found that women in Roi Et municipality area with knowledge about BSE was moderate level 62.0%. The attitude of these women towards BSE was moderate at 50.0%. The level of BSE practices was moderate at 59.0%. 82.5% of women had some knowledge about the methods of BSE. They had BSE 73.5%, but only 18.8% did BSE once a month. The level of BSE skills was low at 53.0%. Therefore, the researcher has the following recommendations: Because breasts are private parts of a woman's body, women in this sample thought breast examination was embarrassing. They believed that should only have breast examination when they feel some abnormality. Target groups had been breast screening for early detection breast cancer. Women should be made aware of the importance of BSE and screening. They should also be encouraged to develop a more positive attitude towards having early health screening. In addition to developing strategic messages that match the cultural in Roi Et municipality area.

2. Health officials and village health volunteers should develop effective ways of reaching out to target groups in the community and encourage more participation from network women in community who can encourage BSE for breast cancer screening.

3. This study found that the level of knowledge associated with the correct methods of BSE remained low. Public education is an important component of

early detection. The program must be sensitive to the culture and region. BSE needs to be set up to increase awareness of women, families and communities.

4. Concern for own healthcare is an important drive for doing BSE. BSE makes women more breast-aware, which in turn may lead to early diagnosis of breast cancer. Development and implement campaigns using media to deliver the message concerning the importance of breast health; Computer Assisted Interactive, video CD and VDO links in website for health education in Health Center while waiting to see the doctor.

5. Awareness on self care is important for public health including the issue on BSE among women. BSE can bring early diagnosis of breast cancer. Self awareness on BSE should improve by developing different kinds of media for encourage people to practice BSE. For example video, CD and website including interactive video for education and awareness. These media can be introduced such as for any client waiting for health service in health center or student in schools.

6. For further study should focus on young women and adolescent for giving them information and skills for BSE. According to this study indicated 69 women do not know how to do BSE, none of this group practice BSE. Among women who know how to do BSE, showing 88.82% practice BSE.

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APPENDICES

APPENDIX A

Part 1 General Information, Personnel Background, and Family History

Explanation: Please check √ the next message the reality, or fill in the gaps completely.

General Information

1. Age.................Years (Counting as integer year)

2. Marital Status

        1 single   2 married

        3 widowed   4 divorced/separated

3. Education Level

        1 elementary school

        2 lower secondary school

        3 upper secondary school/Vocational

        4 high vocational certificate/diploma

        5 bachelor's degree

        6 higher bachelor's degree

4. Occupations

        1 agriculture   2 employee/labour

        3 trade   4 housewife   5 private company employees

        6 employees of the private/government official   7 unemployed

        8 others………….

Personnel Background and the Service

    1. Motherhood   1 No   2 Yes

                Number of children……………..

                Age at the first pregnancy ....year-old

    2. Age at the first menstruation …………..year-old

    3. What is your current menstruation?

            1 Normal menstruation

            2 Abnormal menstruation

            3 Menopauses

            4 Hysterectomies

5 Other.....................................

4. Do you know the methods of BSE?

       1 No   2 Yes

5. Do you practice breast exam and how often you have BSE?

    1 No   2 Yes

                 1 every month   2 every 2-3 month

                 3 every 4-6 month   4 once a year

                 5 hardly ever, less than once a year

6. Have you ever palpable lump or cyst in your breast?

       1 No   2 Yes…………………… (day/month/year)

          First time screening by

      1 yourself   2 people in the family

      3 volunteers of basic community health

      4 public health official   5 others.........................

          Diagnosis

      1 breast cancer

      2 cyst or normal mass   3 other…………………..

7. When do you find the lump where you choose to receive treatment?

      1 Public health center   2 General Hospital   3 Regional Hospital

      4 National Cancer Institute   5 Private Hospital   6 other……………

      7 Never

8. Have you ever exam mammography?

       1 No   2 Yes

Family cancer history

1. Do you ever have any family members: mother, aunty, aunt, sister sickness breast lump?

       1 Never

       2 Ever

          How do you feel the first time?

             1 yourself   2 personal in the family

             3 volunteers of basic community health   4 public health official

             5 screening by mammogram   6 others……………...

2. Have you ever had a direct relative cancer?

   1 No   2 Yes

       2.1 Types of cancer

          1 breast cancer   2 cervical cancer

          3 liver cancer   4 lung cancer

          5 other…………………….

       2.2 How current are they?

          1 treatment processing   2 cured   3 dead

Part 2 knowledge

Explanation: Please answer questions the following your knowledge and

               understanding then you marks √ in the gaps that you agree or disagree,

               know or unknown.

Text	Correct	Incorrect	Unknown
1. Frequency of BSE once a month is the best.			
2. Breast screening is only around the breast and needless around armpit.			
3. Breast examination is 7-10 days after no menstruation or every month on the same day for menopause.			
4. Women who have history about the problem of menopause early and finished slowly, they are high risk factors.			
5. You should have BSE when you feel only abnormality.			
6. The breast should feel by the three fingers continuing without lifting finger.			

Text	Correct	Incorrect	Unknown
7. Postures of breast examination are standing next the mirror, while showering, and lying down.			
8. Squeeze the nipple found that having blood or lymph come out from nipple. It means that you are the last stage of cancer.			
9. You have history of breast cancer in one side, and one other side has no opportunity to be breast cancer again.			
10. BSE correct steps and regular practices are the importance to search the early stage of breast cancer.			

Part 3 Attitude

Explanation: Please answer the question with your opinion to BSE and mark √ only
one in the gabs of your answer.

Text	A comment		
	Agree	Unsure	Disagree
1. You can found breast cancer by yourself.			
2. You are afraid that you will detect breast cancer and so you do not want to check.			
3. Screening for abnormality of BSE is important and useful.			
4. Breast self examination is useless.			
5. Screening for early stage of breast cancer is the duty of doctors, nurses, and public health officials.			

Text	A comment		
	Agree	Unsure	Disagree
6. BSE is complicated, a waste of time, and does not give accurate results.			
7. Publicity or campaigns motivate you to detect breast cancer by yourself on a more regular basis.			
8. Having a breast removed because of cancer affects a woman's appearance and therefore can motivate women to have breast screening.			
9. When you have a close relative or neighbor with breast cancer, you are more fearful and want to manually screen for cancer by yourself.			
10. BSE is a "disgraceful" practice. The other people see or palpable mass the breast to detect breast cancer that is disgraceful for you.			

Part 4 Experiences and behavioral practices

Explanation: Please answer the question with your experiences and behavioral

practices then mark √ only one in the gabs of your answer.

Text	Practices Level		
	Continually	Rarely	Never
1. Have you ever received knowledge about breast cancer from television, radio, newspapers, or journals?			
2. Have you ever received a recommendation / pamphlet about breast cancer from health volunteers?			

Text	Practices Level		
	Continually	Rarely	Never
3. Have you ever received knowledge about BSE using three fingers and three levels of the feel three levels of the feel are light, medium, and heavy?			
4. Did the family recommend that you check for breast cancer?			
5. Have you ever had BSE using screening steps; looking for any abnormality and hand screening.			
6. Are you interested in BSE and other methods?			
7. Have you ever used a pamphlet guide to BSE?			
8. Have you had BSE over the past twelve months?			
9. Have you been screened by doctors or nurses over the past year?			
10. Have you been screened by mammography over the past year?			

Part 5 BSE Observation Form

Explanation: Please cooperate to evaluation of skills in observation BSE

         by observation then mark √ your answer in observation form.

     1. Put you arms overhead to check for abnormalities of breast.

           1 Hands up overhead correctly

           2 Raise your arm not too high or some

           3 No raise your hands overhead

     2. Using the hand breast examination opposite sides left to right.

           1 Using the right hand check on the left side and uses the left check on the right side.

2 Hand side makes the same breast

3 Ignore this method

3. Put three fingers (forefinger, middle finger, and ring finger) for BSE.

1 Movement continued without lifting finger

2 Movements continued with lifting finger

3 Movement discontinuity and lifting finger

4. The feel around breast and lymph glands under the armpit.

1 The feel around breast to the armpit

2 Feel the breast area

3 Incorrect ways and unknown lymph node examination

5. Nipple examination

1 Gently squeezing around the nipple

2 Only touching and no squeezing the nipple

3 Non examination nipple

Breast model Observation Form

Explanation: Please cooperate to observation of skills in breast model examination

skills by interviewer then mark √ your answer in observation form.

1. Using finger

1 Using 4-5 fingers (thumb, forefinger, middle finger, ring finger, and little finger)

2 Using 3 fingers (forefinger, middle finger, and ring finger)

3 Using 1-2 fingers

2. The feel methods

1 Feel a continually spiral, in a wedge or in a vertical high and low without lifting finger

2 Feel continually and lifting finger

3 Not feel continually and lifting finger

3. Three method levels of pressing

1 Pressing three levels: light, medium, and heavy

2 Pressing two levels

3 Pressing a level

4. Feeling the lump in breast model

     1 Finding full lump

     2 Finding some of lump

     3 Non finding lump

5. Nipple squeezing

     1 Checking around the nipple and squeezing

     2 Checking around the nipple, but no squeezing

     3 No checking and no squeezing

Table 31 BSE evaluation of public health volunteers and people members of the public.

No.	Evaluation Activities	Assessment		Remark
		yes	no	
1.	**Knowledge** 1.1 Time of detection of breast			1.1. Satisfied means to examination after finishing menstruation 7 to 10 days or examination the same day every month.
	1.2 Frequency of examination			1.2 Satisfied means doing self-examination every month.
	Total Assessment			
2.	**Brest examination skills**			
	2.1 Raise your hand up overhead			
	2.2 Using the opposite hand to touch the breast			
	2.3 Touching around the entire breast and circle around to collar bone			
	2.4 The method using three fingers and moving them around			
	2.5 Gently squeezing around nipple to check for any discharge			
	Total Assessment			

Remark   Putting a ✓ in the field assessment through the evaluation criteria
means to pass all questions.

Table 32 Number of Target Group and Sampling.

No.	Community's Name	Target Group	Sampling
1	Sirimongkon	353	24
2	Wat Kum	351	24
3	Wat Weruwan	433	29
4	Wat Nhua	284	19
5	Thungcharoen	321	22
6	Nongcan	352	24
7	Rhongpayaban	709	48
8	Watpa Rerai	199	14
9	Sri-Udom	401	27
10	Pra-Ararmlhuang	211	15
11	Nongyama	202	14
12	Wat Rasdorn-Utit	237	16
13	Thanakorn	349	24
14	Wat Bueng	356	24
15	Pipitpan	175	12
16	Rhongreanmuang	306	21
17	Robmuang	144	10
18	Borkorsor	248	17
19	Chankasem	186	13
20	Munkongpattana	46	3
	Total	**5,863**	**400**

Documents and media in the research

1. Pamphlets for BSE of Faculty of Engineering, College of Health Sciences, and Faculty of Architecture, Chulalongkorn University.

2. Image flip with contents description and illustration of Faculty of Engineering, College of Health Sciences, and Faculty of Architecture, Chulalongkorn University.

3. Breast model of Faculty of Engineering, College of Health Sciences, and Faculty of Architecture, Chulalongkorn University.

4. VCD about knowledge of breast cancer and teaching BSE methods of Department of Health, Ministry of Public Health.

5. This is the website for BSE interactive video; http://www.breastselfexam.ca/

Silicone Breast Model by Chulalongkorn University

APPENDIX B

แบบสอบถาม

ส่วนที่ 1 ข้อมูลทั่วไป ประวัติส่วนตัวและประวัติครอบครัว

คำชี้แจง: โปรดทำเครื่องหมาย √ ใน ☐ หน้าข้อความตามความเป็นจริง หรือเติมข้อความลงใน
ช่องว่างให้สมบูรณ์

ข้อมูลทั่วไป

1. อายุ.................ปี (นับจำนวนเต็มปี)

2. สถานภาพ

      1 โสด   2 คู่

      3 หม้าย   4 หย่า/แยก

3. ระดับการศึกษาสูงสุด

      1 ประถมศึกษา   2 มัธยมต้น

      3 มัธยมปลาย/ปวช.   4 ปวส./อนุปริญญา

      5 ปริญญาตรี   6 สูงกว่าปริญญาตรี

4. อาชีพ

      1 เกษตรกรรม   2 รับจ้าง

      3 ค้าขาย   4 แม่บ้าน

      5 พนักงานบริษัทเอกชน   6 พนักงานของรัฐ/ข้าราชการ

      7 ไม่ได้ประกอบอาชีพ   8 อื่นๆระบุ....................

ประวัติส่วนตัวและการใช้บริการ

    1. การมีบุตรท่าน   1 ไม่มี   2 มี จำนวน..........คน

                                ตั้งครรภ์บุตรคนแรก เมื่ออายุ..........ปี

    2. ประจำเดือนมาครั้งแรกเมื่ออายุ...................ปี

    3. ปัจจุบันประจำเดือนของท่านเป็นอย่างไร

        1 มีประจำเดือนปกติ

        2 มีอาการผิดปกติ

        3 หมดประจำเดือนแล้ว เมื่ออายุ..........ปี

        4 ไม่มีประจำเดือนเนื่องจากผ่าตัดมดลูกแล้ว

        5 อื่นๆระบุ.....................................

4. ท่านทราบและรู้วิธีการตรวจหามะเร็งเต้านมด้วยตนเอง

           1 ไม่ทราบ   2 ทราบ

5. ท่านมีการตรวจเต้านมตนเอง   1 ไม่ตรวจ   2 ตรวจ

        ท่านตรวจเต้านมด้วยตนเองบ่อยเพียงใด

             1 ตรวจทุกเดือน

             2 ตรวจทุก 2-3 เดือน

             3 ตรวจทุก 4-6 เดือน

             4 ตรวจ1 ครั้งต่อปี

             5 มากกว่า 1 ปีหรือไม่แน่นอน นานๆครั้ง เมื่อนึกได้

             6 ไม่เคยตรวจเลย

6. ท่านเคยตรวจพบว่ามีก้อนหรือถุงน้ำที่เต้านมหรือไม่

        1 ไม่เคย   2 เคย

        ถ้าเคยตรวจพบครั้งแรกโดย

                 1 ตรวจพบด้วยตนเอง

                 2 บุคคลในครอบครัว

                 3 ตรวจพบโดย อสม

                 4 ตรวจพบโดยเจ้าหน้าที่สาธารณสุข

                 5 อื่นๆระบุ........................

        ได้รับการวินิจฉัยว่าเป็นโรค

                 .1 มะเร็งเต้านม

                 2 ถุงน้ำหรือก้อนธรรมดา

                 3 อื่นๆระบุ........................

7. เมื่อพบก้อนเนื้อท่านเข้ารับการรักษาที่สถานพยาบาลใด

        1 สถานีอนามัย   2 โรงพยาบาล   3 โรงพยาบาลศูนย์

        4 สถาบันมะเร็งแห่งชาติ   5 โรงพยาบาลเอกชน   6 อื่นๆ ระบุ..............

        7 ไม่รับการรักษาเลย

8. ท่านเคยตรวจแมมโมแกรมหรือไม่

        1 ไม่เคย   2 เคย จากแหล่งใด ระบุ..............................

ประวัติครอบครัว

1. สมาชิกในครอบครัวหรือญาติสายตรงเช่น แม่ ยาย ป้า น้า พี่และน้อง เคยเจ็บป่วยด้วยการมีก้อนที่เต้านมหรือไม่

        1 ไม่เคย

        2 เคย   ถ้าเคยตรวจพบครั้งแรกโดย

            1 ตรวจพบด้วยตนเอง

            2 ตรวจพบโดยบุคคลในครอบครัว

            3 ตรวจพบ โดย อสม.

            4 ตรวจพบโดยเจ้าหน้าที่สาธารณสุข

            5 ตรวจพบด้วยเครื่อง แมมโมแกรม

            6 อื่นๆระบุ…………..

2. มีญาติสายตรงป่วยเป็นโรคมะเร็งหรือไม่

        1 ไม่มี

        2 มี เป็นใครระบุ........................

            2.1 ชนิดของมะเร็ง

                1 มะเร็งเต้านม   2 มะเร็งปากมดลูก

                3 มะเร็งตับ   4 มะเร็งปอด

                5 อื่นๆ ระบุ.....................................

            2.2 ถ้ามีปัจจุบันเป็นอย่างไร

            1 กำลังรักษา

            2 หายเป็นปกติ

            3 เสียชีวิตแล้ว

ส่วนที่ 2 แบบวัดความรู้

คำชี้แจง: โปรดตอบคำถาม ต่อไปนี้ ตามความรู้และความเข้าใจ ของท่านที่เป็นจริง และทำ
เครื่องหมาย √ ในช่องคำตอบที่ท่าน เห็นด้วยว่า ใช่ ไม่ใช่ หรือไม่ทราบ

ข้อความ	ใช่	ไม่ใช่	ไม่ทราบ
1. ระยะเวลาความถี่ในการตรวจเต้านมด้วยตนเอง เดือนละ1 ครั้ง เหมาะสมที่สุด			
2. การตรวจเต้านม ตรวจเฉพาะบริเวณเต้านม เท่านั้น ไม่จำเป็นต้องตรวจที่บริเวณรักแร้			
3. ช่วงเวลาการตรวจเต้านมคือหลังหมด ประจำเดือน7-10วันหรือทุกวันที่เดียวกันทุกเดือน กรณีหมดประจำเดือนแล้ว			
4. สตรีที่มีประวัติประจำเดือนเร็วและหมดช้า ถือว่า ผิดปกติมีโอกาสเป็นมะเร็งมากกว่าคนปกติ			
5. ควรตรวจเต้านมตนเอง ควรเริ่มตรวจเมื่อมีอาการ ผิดปกติเท่านั้น			
6. การคลำเต้านมควรใช้นิ้วมือสามนิ้ว คลำต่อเนื่อง โดยไม่ยกนิ้วเลย			
7. ท่าในการตรวจเต้านมคือ ยืนหน้ากระจก ขณะ อาบน้ำ และท่านอน			
8. การบีบหัวนมแล้วพบว่ามีเลือดหรือน้ำเหลือง ไหลออกทางหัวนมแสดงว่าเป็นมะเร็งเต้านม ใน ระยะสุดท้าย			
9. ประวัติเคยเป็นมะเร็งเต้านมแล้วข้างหนึ่ง อีกข้าง หนึ่ง ไม่มีโอกาสเป็นได้อีกเลย			
10. การตรวจเต้านมด้วยตนเองถูกต้องตามขั้นตอน และปฏิบัติอย่างสม่ำเสมอ เป็นสิ่งสำคัญในการ ค้นหามะเร็งเต้านมในระยะเริ่มแรก			

ส่วนที่ 3 แบบวัดเจตคติ

คำชี้แจง: โปรดตอบคำถามต่อไปนี้ ตามความคิดเห็นของท่านต่อการตรวจเต้านมด้วยตนเองที่
เป็นจริงและทำเครื่องหมาย √ ในช่องคำตอบที่ท่านเลือกเพียงคำตอบเดียว

ข้อความ	ระดับความคิดเห็น		
	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย
1. มะเร็งเต้านม เป็นโรคที่ตรวจพบได้ด้วยตนเอง			
2. ท่านรู้สึกกลัวว่าจะตรวจพบมะเร็งเต้านม จึงไม่อยากตรวจ			
3. การตรวจพบหาสิ่งผิดปกติของเต้านมด้วยตนเองเป็นสิ่งที่ดี			
4. การตรวจเต้านมด้วยตนเองเป็นสิ่งที่ไม่จำเป็น			
5. การตรวจหามะเร็งเต้านมระยะเริ่มต้นเป็นหน้าที่ของแพทย์ พยาบาล เจ้าหน้าที่สาธารณสุขเท่านั้น			
6. การตรวจมะเร็งเต้านมด้วยตนเองเป็นการยุ่งยากเสียเวลาเปล่า ไม่ได้ผลที่เป็นจริง			
7. การประชาสัมพันธ์ หรือการรณรงค์ ทำให้ท่านอยากตรวจหามะเร็งเต้านมด้วยตนเองมากขึ้น			
8.มะเร็งเต้านมอาจต้องผ่าตัดเต้านมออก เป็นการสูญเสียภาพลักษณ์ของผู้หญิง ทำให้ท่านอยากตรวจเต้านม			
9. เมื่อมีคนใกล้ชิดที่เป็นญาติ เพื่อนหรือ คนรู้จัก ป่วยด้วยโรคมะเร็งเต้านม ท่านจึงรู้สึกกลัวและอยากตรวจหามะเร็งด้วยตนเอง			
10. การให้คนอื่นดูหรือคลำเต้านมเพื่อตรวจหามะเร็งเต้านมเป็นเรื่องที่น่าอายสำหรับท่าน			

ส่วนที่ 4 ประสบการณ์ และพฤติกรรมการปฏิบัติ

คำชี้แจง: โปรดตอบคำถามต่อไปนี้ ตามประสบการณ์และการปฏิบัติของท่าน ตามความ เป็นจริง และทำเครื่องหมาย √ ในช่องคำตอบ ที่ท่านเลือก เพียงคำตอบเดียว

ข้อความ	ระดับการปฏิบัติ		
	เป็นประจำ	นานๆครั้ง	ไม่ปฏิบัติ
1. ท่านเคยได้รับความรู้ข่าวสารเรื่องมะเร็งเต้านมจาก โทรทัศน์วิทยุ หนังสือพิมพ์ วารสารต่างๆ (ในรอบ 1 ปี ที่ผ่านมา)			
2. ท่านเคยได้รับการชี้แนะ/เอกสารแผ่นพับความรู้เรื่อง มะเร็งเต้านมจากอาสาสมัครสาธารณสุข (ในรอบ 1 ปี ที่ผ่านมา)			
3. ท่านเคยได้รับความรู้เรื่องวิธีการตรวจเต้านมตนเอง ด้วยนิ้วมือ 3นิ้ว และ 3 ระดับของการคลำคือ เบา กลาง หนัก (ในรอบ 1 ปีที่ผ่านมา)			
4. คนในครอบครัวเป็นคนแนะนำให้ท่านตรวจมะเร็ง เต้านม			
5.ท่านเคยปฏิบัติการตรวจมะเร็งเต้านมด้วยตนเอง ตาม ขั้นตอนการตรวจ คือ การมองหาความผิดปกติ และ การตรวจโดยใช้มือ			
6. ท่านให้ความสนใจเรื่องการตรวจเต้านมด้วยตนเอง และชักชวนบุคคลอื่นปฏิบัติด้วย			
7. ท่านใช้แผ่นพับความรู้เป็นคู่มือในการตรวจเต้านม ตนเอง			
8. ในรอบ 1 ปีที่ผ่านมา ท่านตรวจเต้านมด้วยตนเอง			
9. ในรอบ 1 ปีที่ผ่านมา ท่านเคยไปรับการตรวจเต้านม โดยแพทย์หรือพยาบาล			
10. ในรอบ 1 ปีที่ผ่านมาท่านตรวจเต้านมด้วยวิธี แมมโมแกรม			

ส่วนที่ 5 แบบประเมินทักษะ การตรวจเต้านมด้วยตนเอง

คำชี้แจง: โปรดให้ความร่วมมือในการสังเกต ทักษะการตรวจเต้านมตนเองกับตนเองโดยผู้

สัมภาษณ์เป็นผู้สังเกต และทำเครื่องหมาย √ ตามที่ สังเกตเห็น ลงใน   ดังต่อไปนี้

1. ท่าการตรวจยกมือเหนือศีรษะเพื่อมองดูความผิดปกติของเต้านม

1 ยกมือขึ้นเหนือศีรษะทั้งสองข้างได้ถูกต้อง

2 ยกแขนไม่สูง หรือยกบ้างไม่ยกบ้าง

3 ไม่ยกมือเหนือศีรษะเลย

2. ท่าการใช้มือตรวจเต้านมสลับข้างตรวจ ซ้าย-ขวา

1 ใช้มือขวาตรวจเต้านมซ้าย ใช้มือซ้ายตรวจเต้านมขวา

2 ใช้มือตรวจข้างเดียวกันกับเต้านม

3 ไม่ตรวจโดยวิธีนี้เลย

3. วิธีการวางนิ้ว 3 นิ้ว (นิ้วชี้ นิ้วกลาง นิ้วนาง) ในการตรวจเต้านม

1 เคลื่อนที่อย่างต่อเนื่องโดยไม่ยกนิ้ว

2 เคลื่อนที่อย่างต่อเนื่องแต่ยกนิ้วมือ

3 เคลื่อนที่ไม่ต่อเนื่องและมีการยกนิ้วมือ

4. การคลำบริเวณเต้านม และต่อมน้ำเหลืองใต้รักแร้

1 คลำบริเวณเต้านมไปจนถึงรักแร้

2 คลำเฉพาะบริเวณเต้านม

3 ทำไม่ถูกต้องและไม่ทราบว่าต้องตรวจที่ต่อมน้ำเหลืองด้วย

5. การตรวจบริเวณหัวนม

1 บีบเบาๆบริเวณหัวนม

2 จับเฉยๆ ไม่ได้บีบบริเวณหัวนม

3 ไม่ตรวจหัวนมเลย

ส่วนที่ 6 แบบประเมินทักษะการตรวจเต้านมด้วยหุ่นเต้านมจำลอง

คำชี้แจง: โปรดให้ความร่วมมือในการสังเกตทักษะการตรวจเต้านมด้วยตนเองกับหุ่นเต้านมจำลอง

โดยผู้สัมภาษณ์ เป็นผู้สังเกตและ ทำเครื่องหมาย √ ตามที่สังเกตเห็น ลงใน   ดังต่อไปนี้

1. การใช้นิ้วมือ

ใช้4- 5 นิ้ว (นิ้วหัวแม่มือ นิ้วชี้ นิ้วกลาง นิ้วนาง นิ้วก้อย)

ใช้ 3 นิ้ว (นิ้วชี้ นิ้วกลาง นิ้วนาง)

ใช้ 1-2 นิ้ว

2. วิธีการคลำ

คลำต่อเนื่อง แบบก้นหอย รูปลิ่ม หรือในแนวขึ้นลง ไม่ยกนิ้ว

คลำต่อเนื่องและยกนิ้วมือ

คลำไม่ต่อเนื่องและยกนิ้ว

3. วิธีการกด 3 ระดับ

กดได้ 3 ระดับ เบา กลาง หนัก

กดได้ 2 ระดับ

กดได้ระดับเดียวกันตลอด

4. การคลำพบก้อน ในหุ่นเต้านมจำลอง

พบก้อนครบ

พบก้อนไม่ครบ

ไม่พบก้อน

5. การบีบหัวนม

ตรวจบริเวณหัวนมและบีบดูหัวนม

ตรวจบริเวณหัวนมแต่ไม่บีบดูหัวนม

ไม่ได้ตรวจและ ไม่บีบดูหัวนมเลย

APPENDIX C

Pamphlet

การตรวจเต้านมด้วยตนเอง

มะเร็งเต้านมเป็นสาเหตุการตายอันดับต้นๆ
ของผู้หญิงไทย มักพบในผู้หญิงอายุ 35 ปีขึ้นไป
และกว่าร้อยละ 80 ที่ตรวจพบ เป็นมะเร็งเต้านม
ในระยะที่เป็นมากแล้ว ซึ่งทำให้โอกาสมีชีวิตรอดน้อย
แต่อย่างไรก็ตาม หากตรวจพบมะเร็งเต้านมในระยะแรกๆ
จะสามารถรักษาให้หายได้ ซึ่งผู้หญิงทุกคนสามารถ
ตรวจหาได้ด้วยตัวเอง จึงนับเป็นโอกาสดีที่ผู้หญิง
จะสามารถดูแลตัวเองได้ ดังนั้นหากมีการตรวจเต้านม
ด้วยตนเองอย่างสม่ำเสมอและถูกต้อง
น่าจะช่วยค้นหามะเร็งเต้านมในระยะเริ่มแรก
และลดอัตราการตายของผู้หญิงไทยจากมะเร็งเต้านมได้

วิธีการตรวจเต้านมด้วยตนเอง

ผู้หญิงควรตรวจเต้านมตัวเอง
เพื่อหาก้อนในเต้านม
หรือแผ่นผื่นหนาในเนื้อเต้านมทุกเดือน
เวลาที่เหมาะสมในการตรวจ
คือประมาณ 7 วัน
หลังจากที่มีประจำเดือนวันแรก
เพราะช่วงนั้นเต้านมจะอ่อนตัว
และง่ายต่อการตรวจ
และสตรีวัยหมดระดูควรตรวจด้วยตัวเอง
ในวันเดียวกันเป็นประจำทุกเดือน

สงสัย หรือต้องการรายละเอียดเพิ่มเติม
ติดต่อได้ที่

ศูนย์ปรึกษาคุณภาพชีวิต
วิทยาลัยวิทยาศาสตร์สาธารณสุข
จุฬาลงกรณ์มหาวิทยาลัย
อาคารสถาบัน 2-3 ซอยซอย 62
ถนนพญาไท ปทุมวัน กทม.10330
โทรศัพท์ 02-218 8154

การตรวจเต้านม
ด้วยตนเอง

ด้วยความปรารถนาดี จาก
คณะวิศวกรรมศาสตร์
วิทยาลัยวิทยาศาสตร์สาธารณสุข
และคณะสถาปัตยกรรมศาสตร์
จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX C

Pamphlet

APPENDIX D

Reliability test on the measurement scale of knowledges on BSE.

Item-Total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Frequency of BSE once a month is the best.	5.8667	6.464	.746	.767
2. Breast screening is only around the breast and needless around armpit.	5.7333	7.306	.450	.801
3. Breast examination is 7-10 days after no menstruation or every month on the same day for menopause.	5.9000	6.852	.567	.789
4. Women who have history about the problem of menopause early and finished slowly, they are high risk factors.	5.9333	7.375	.352	.813
5. You should have BSE when you feel only abnormality.	5.7333	7.651	.301	.816
6. The breast should feel by the three fingers continuing without lifting finger.	5.7000	7.183	.535	.793

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
7. Postures of breast examination are standing next the mirror, while showering, and lying down.	5.8000	7.476	.342	.813
8. Squeeze the nipple found that having blood or lymph come out from nipple. It means that you are the last stage of cancer.	5.8000	7.062	.514	.795
9. You have history of breast cancer in one side, and one other side has no opportunity to be breast cancer again.	5.9000	7.334	.371	.811
10. BSE correct steps and regular practices are the importance to search the early stage of breast cancer.	5.8333	6.420	.782	.763

Reliability Statistics

Cronbach's Alpha	N of Items
.814	10

Reliability test on the measurement scale of attitudes on BSE.

Item-Total Statistics.

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. You can found breast cancer by yourself.	21.5000	15.155	.183	.748
2. You are afraid that you will detect breast cancer and so you do not want to check.	22.3000	13.045	.463	.715
3. Screening for abnormality of BSE is important and useful.	21.7667	14.323	.221	.750
4. Breast self examination is useless.	21.8333	11.523	.698	.672
5. Screening for early stage of breast cancer is the duty of doctors, nurses, and public health officials.a5	22.1000	12.714	.473	.713
6. BSE is complicated, a waste of time, and does not give accurate results.	21.9333	12.202	.670	.683
7. Publicity or campaigns motivate you to detect breast cancer by yourself on a more regular basis.	21.5333	14.809	.262	.741

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
8. Having a breast removed because of cancer affects a woman's appearance and therefore can motivate women to have breast screening.	22.0667	14.478	.132	.770
9. When you have a close relative or neighbor with breast cancer, you are more fearful and want to manually screen for cancer by yourself.	21.6000	13.490	.586	.706
10. BSE is a "disgraceful" practice. The other people see or palpable mass the breast to detect breast cancer that is disgraceful for you.	22.0667	12.202	.459	.716

Reliability Statistics

Cronbach's Alpha	N of Items
.744	10

Reliability test on the measurement scale of practices on BSE.

Item-Total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Have you ever received knowledge about breast cancer from television, radio, newspapers, or journals?	18.4333	20.323	.753	.903
2. Have you ever received a recommendation/ pamphlet about breast cancer from health volunteers?	18.6333	20.171	.724	.905
3. Have you ever received knowledge about BSE using three fingers and three levels of the feel three levels of the feel are light, medium, and heavy?	18.6333	19.895	.775	.902
4. Did the family recommend that you check for breast cancer?	19.3333	21.954	.376	.926

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
5. Have you ever had BSE using screening steps; looking for any abnormality and hand screening.	18.6333	19.689	.898	.895
6. Are you interested in BSE and other methods?	18.6667	20.575	.731	.905
7. Have you ever used a pamphlet guide to BSE?	18.7333	20.616	.757	.904
8. Have you had BSE over the past twelve months?	18.7333	19.099	.892	.894
9. Have you been screened by doctors or nurses over the past year?	19.3333	18.782	.705	.909
10. Have you been screened by mammography over the past year?	19.8667	23.016	.348	.923

Reliability Statistics

Cronbach's Alpha	N of Items
.915	10

VITAE

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