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Beliefs about breast cancer and practice of BSE: A pilot study of Thai women

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- Problem** : *Breast cancer refers to invasive carcinoma and is almost exclusively a women's disease. In Thailand, the incidence of breast cancer is increasing and is the second most frequently occurring cancer affecting Thai women. The sooner, breast cancer is detected, the better the prognosis. Breast self examination (BSE) is one of three methods of detecting breast cancer. BSE should be practiced every month by women 20 years and older. However, few women perform BSE correctly and regularly.*
- Objectives** : *1. To explore the beliefs and knowledge about breast cancer and BSE of janitors at Chulalongkorn University.
2. To explore the practice of BSE of janitors at Chulalongkorn University.*
- Setting** : *Chulalongkorn University, Bangkok 10330, Thailand.*
- Research design** : *Descriptive study with structured interviews tape recorded in English then translated into Thai. The analysis was performed by translating the transcribed verbatim data from Thai to English.*
- Results** : *The sample of 18 women, who worked as janitors at Chulalongkorn University, ranged in age from 23 - 54 years. This sample had been trained in BSE during a previous research project. The findings*

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confirmed strong beliefs in six areas of the health belief model about breast cancer: perceived susceptibility (75 %), perceived seriousness (100 %), perceived benefits (94 %), perceived barriers (9 %), health motivation (66 %), and perceived control ((91 %). Eighty three percent identified the correct part of the hand used in performing BSE. Surprisingly, 89 % understood BSE as a preventative against breast cancer. One hundred percent of the women reported doing BSE, with varying degrees of self-reported proficiency. Only 33 % stated they performed it monthly and regularly.

Conclusion : *Overall, the sample reported beliefs of high perceived susceptibility, high perceived seriousness of breast cancer, high perceived benefits from doing BSE, low perceived barriers to BSE, a strong sense of health motivation, and a high perception of control over their health. Although all of the women reported doing BSE, average scores on knowledge and practice of BSE were not strong as the section on beliefs. The women's skills were especially lacking regarding the correct timing of BSE.*

Key words : *Breast cancer, Belief, Practice, Breast self-examination.*

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พวงทิพย์ ชัยพิบาลสถิตย์, เจนนิเฟอร์ ซาลเยอร์. ความเชื่อเกี่ยวกับโรคมะเร็งและการปฏิบัติ
การตรวจเต้านมด้วยตนเอง : การศึกษานำร่องในสตรีไทย. จุฬาลงกรณ์เวชสาร 2543 ก.ย; 44(9):
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- ปัญหา** : โรคมะเร็งเต้านมเป็นโรคที่เกิดในสตรีร้อยละ 99 ในประเทศไทยมีสตรีที่เป็น
โรคมะเร็งเต้านมรายใหม่เพิ่มขึ้นเรื่อย ๆ และเป็นสาเหตุการตายจากโรค
มะเร็งเป็นอันดับ 2 การรักษาโรคมะเร็งเต้านมจะได้ผลดีถ้าตรวจพบโรคใน
ระยะเริ่มแรก การตรวจที่กระทำต่อเนื่องเป็นวิธีหนึ่งในสามวิธี คือ การตรวจ
เต้านมด้วยตนเองทุกเดือนเมื่อสตรีมีอายุ 20 ปี ขึ้นไป อย่างไรก็ตาม มีสตรี
จำนวนน้อยมากที่ตรวจเต้านมด้วยตนเองอย่างถูกต้องและสม่ำเสมอ ทั้งนี้
อาจเกี่ยวข้องกับ ความเชื่อ ความรู้ และการปฏิบัติการตรวจเต้านมด้วยตนเอง
- วัตถุประสงค์** : 1. เพื่อค้นหาความเชื่อ และความรู้เกี่ยวกับโรคมะเร็งเต้านม และการตรวจ
เต้านมด้วยตนเองของนักรการภาวโรง จุฬาลงกรณ์มหาวิทยาลัย
2. เพื่อศึกษาการปฏิบัติการตรวจเต้านมด้วยตนเองของนักรการภาวโรง
จุฬาลงกรณ์มหาวิทยาลัย
- สถานที่ทำการศึกษา** : จุฬาลงกรณ์มหาวิทยาลัย
- รูปแบบการวิจัย** : การวิจัยเชิงบรรยาย ด้วยวิธีการสัมภาษณ์แบบมีโครงสร้างพร้อมบันทึกเทป
ด้วยภาษาอังกฤษ และแปลเป็นภาษาไทย และวิเคราะห์ข้อมูลจากการถอด
เทปภาษาไทยพร้อมแปลเป็นภาษาอังกฤษ
- ผลการศึกษา** : กลุ่มตัวอย่าง 18 คน เป็นนักรการภาวโรงหญิง จุฬาลงกรณ์มหาวิทยาลัย
อายุระหว่าง 23 - 54 ปี เคยได้รับการฝึกอบรมในการตรวจเต้านมด้วยตนเอง
จากงานวิจัยในอดีตมาแล้ว การวิจัย ครั้งนี้พบว่า ความเชื่อ ทั้ง 6 ด้าน
อยู่ในระดับสูง คือ ด้านการรับรู้ความไวต่อการเกิดโรคมะเร็ง (75 %) ด้าน
การรับรู้ความรุนแรงของโรค (100 %) ด้านการรับรู้ผลประโยชน์ (94 %) ด้าน
การรับรู้อุปสรรค (9 %) ด้านแรงจูงใจต่อการมีสุขภาพดี (66 %) และด้าน
การรับรู้ควบคุมตนเอง (91%) ร้อยละ 83 สามารถบอกส่วนของมือที่ใช้ใน
การตรวจเต้านมได้ถูกต้อง ร้อยละ 100 รายงานว่าได้ตรวจเต้านมด้วยตนเอง
ในลักษณะที่หลากหลาย มีเพียงร้อยละ 33 ที่รายงานว่าได้ตรวจเต้านมด้วย
ตนเองทุกเดือนอย่างสม่ำเสมอ

สรุป : โดยทั่วไปกลุ่มตัวอย่างรายงานความเชื่อด้านการรับรู้ความไวต่อการเกิดโรค ด้านการรับรู้ความรุนแรงของโรค ด้านการรับรู้ผลประโยชน์ ด้านแรงจูงใจ ต่อการมีสุขภาพดี และด้านการรับรู้ควบคุมตนเองในระดับสูง แต่ด้านการรับรู้อุปสรรคค่อนข้างต่ำ แม้ว่ากลุ่มตัวอย่างทั้งหมดจะรายงานว่าได้ตรวจเต้านมด้วยตนเอง ผลการศึกษาด้านความรู้และการปฏิบัติการตรวจเต้านมด้วยตนเองต่ำกว่าความเชื่อ ทักษะที่ควรปรับปรุงของสตรีกลุ่มนี้คือการแก้ไขเรื่องเวลาในการตรวจเต้านมด้วยตนเอง

คำสำคัญ : มะเร็งเต้านม ความเชื่อ การปฏิบัติ การตรวจเต้านมด้วยตนเอง

Breast cancer refers to invasive carcinoma of the breast, whether ductal or lobular and is nearly exclusive to women, with only 1 % of breast cancer found in males.⁽¹⁾ Although there are many hypotheses, researchers still do not know the cause of breast cancer. Therefore, secondary prevention is currently the most effective way to reduce breast cancer mortality.⁽²⁾ Generally, breast cancer found at an earlier stage has a better prognosis than advanced breast cancer. According to the American Cancer Society,⁽³⁾ the best way to lower mortality rates from breast cancer is early diagnosis; 91 % of patients with breast cancer discovered at stage one will be alive in 5 years as opposed to 18 % of those whose tumors have advanced to stage four. In addition, choices in breast cancer treatment may depend on its early detection.⁽²⁾ Therefore, it is important for all women to participate in breast cancer screening.

Currently, there are three methods used to detect breast cancer: breast self examination (BSE), clinical breast examination performed by a qualified nurse or physician, and mammography, as stated in the guidelines for breast cancer screening according to the American Cancer Society. BSE should be done every month in women 20 years and older. Every 3 years, women 20 to 40 years old should receive a clinical breast examination, and women over 40 should receive one every year.⁽⁴⁾ Women between the ages of 35-39 should receive a baseline mammogram. They should begin having a mammogram every 1 to 2 years at the age of 40.⁽⁵⁾ In order for women to gain more control over their health, they must take advantage of all three techniques.

Although there is some debate as to the efficacy of BSE,⁽²⁾ it has not been shown to hinder

breast screening.⁽⁵⁾ However, where mammography is not always available to all women, clinical breast examination and BSE are especially important. BSE in particular may give women a sense of personal control and responsibility for their health since it is something they are able to do independently. Additional benefits of BSE include cost effectiveness, convenience, and ease of procedure for most women.

In order for BSE to be as useful an early detection tool as possible and reduce mortality, it must be done competently, and diagnostic follow-up must be accessible.⁽⁶⁾ Women must receive some training in order to gain an understanding of BSE and become proficient in the technique. Training may consist of pamphlet distribution, group instruction, and individualized instruction. Attitudinal interventions may also be included in the training.⁽²⁾

Problem Identification

In Thailand, the incidence of breast cancer is increasing from 26.9 percent to 29 percent.⁽⁷⁾ Currently, it is the second most frequently occurring cancer affecting Thai women. Health care is expensive; hence, low socioeconomic status is a barrier to obtaining proper health care. Therefore, it is important to focus on researching ways to limit barriers to optimum health in this specific population as well as in the Thai population as a whole. Health promotion education is key to accomplish this goal.

This research study describes the beliefs and behaviors regarding BSE and breast cancer of Thai women who have had BSE training. Its purpose is to examine the beliefs and knowledge about breast cancer and BSE, and the practice of BSE within the sample. It was conducted as a continuation study in

collaboration with another group of faculty-student researchers who trained the sample population in BSE. These research findings could possibly benefit the health of Thai women by serving as an example of how to promote healthy behavior by addressing the subjects belief systems.

Objectives

1. To explore the beliefs and knowledge about breast cancer and BSE in Thai women.
2. To explore the practice of BSE in Thai women.

Design

The Health Belief Model proposes that six areas of belief influence health-related behavior. The areas of belief within the model include perceived seriousness, perceived susceptibility, perceived barriers, perceived benefits, perceived control (self-efficacy), and health motivation.⁽⁸⁾ Therefore, if a person has strong beliefs within these six areas, she or he is assumed to behave in a predictable manner. In this study, for example, if a woman perceives breast cancer as serious, believes she is susceptible to breast cancer, feels she can control the disease by detection, thinks that BSE will be beneficial to her, does not perceive significant barriers to performing BSE, and is motivated by a desire to be healthy, it is anticipated that she will practice BSE competently as trained. Multiple studies have been conducted using the Health Belief Model to investigate women's beliefs and behaviors related to BSE.⁽⁹⁻¹²⁾ In 1997, Champion and Scott used the Health Belief Model to develop scales which could more accurately measure the beliefs about BSE of African American women. Another study using the Health Belief Model found

that women were more proficient at BSE after receiving both procedural and belief interventions.⁽¹⁰⁾

The Health Belief Model has also been combined with social network variables, leading to the finding that women practice BSE more frequently if they have strong beliefs in its benefits, perceive minimal barriers to performing BSE, and exhibit a high self-concept.⁽⁹⁾ This investigation uses the Health Belief Model to describe the beliefs of a small sample of Thai women. It also examines the sample's knowledge and practice of BSE.

Sample

This study used a convenience sample that consisted of 18 low income Thai women employed as janitors at Chulalongkorn University. The women's ages range from 23 to 54. They live within the same housing community on the university campus. One woman completed third grade, nine completed fourth grade, three finished sixth grade, one finished seventh grade, two completed middle school, and one completed high school. One woman did not provide educational information. All of the women in this continuation and pilot study participated in the previous study of BSE training and follow-up demonstrations.⁽¹³⁾ The sample's BSE training consisted of attitudinal interventions, breast cancer information, and skills training on models and themselves. The women were divided into three groups for the training sessions. Knowledge scores before training averaged 43.3 % and after training averaged 57.8 %.

Method

Using the Health Belief Model as the

conceptual framework, this collaborative pilot study was conducted in order to gain a description of the beliefs about breast cancer of the women in the sample. In addition, information was gathered about the sample's knowledge and practice of BSE.

For this descriptive study, structured interviews were conducted with the participants. The instrument consisted of a structured interview which had been tested for content validity and reliability. For accuracy, the instrument was also translated from English into Thai and then translated back to English by a third party. The thirty-one questions on the interview were categorized as yes/no, multiple choice, and open ended. The interview guide contained the following items; two questions about the informants' perceived susceptibility to breast cancer, two questions about the perceived seriousness of the disease (with one open ended), three about perceived benefits of BSE (with two open ended), seven questions pertaining to barriers to doing BSE, three questions about perceived control, five questions about health motivation (with one open ended), and nine questions about knowledge and practice of BSE, consisting of one multiple choice and two open ended. The category focusing on knowledge and practice of BSE allowed for assessing the informants' BSE behavior.

The interviews were conducted at a place and time most convenient for the sample, and were tape recorded for subsequent transcription. Because the interviewer did not speak the Thai language, a translator assisted during the interviews. First, the interviewer spoke in English, and then the translator read aloud the Thai version of the introduction, consent form, and interview questions, and recorded the answers. The interviews took place at either the

sample's home or the sample's work-site, depending on what was most convenient for her. The duration of the interviews was about thirty minutes. Afterwards, the tapes were transcribed and then translated into English for analysis.

Results

The findings from this study were presented in three parts: sample demographics, beliefs, and knowledge and practice of BSE.

Sample demographics

The sample of women ranged in age from 23 to 54 years. Two of the women have already experienced menopause. The average age of menarche was 14.5 years. All of the women were married. The number of children per woman averaged 2.05, ranging from zero to nine. Fifty percent of the women had been educated to the fourth grade. All of the women worked in basic low wage occupations as janitors.

Beliefs about breast cancer

In this section, the beliefs of the sample are described, following the six areas of the Health Belief Model.

1. Perceived Susceptibility

The majority of the sample (75 %) felt that it is possible for breast cancer to occur in either themselves or someone whom they know. Interestingly, the majority of women (83 %) felt others to be more susceptible to the disease than themselves. About one third of the sample (33 %) exhibited no feelings of personal susceptibility.

2. Perceived Seriousness

All of the women interviewed expressed their

belief that breast cancer is serious. Many also felt fearful of the disease, and some had personal experiences with cancer affecting friends or family members. In answer to the open-ended question, thirty three percent (N = 6) of the women stated that, due to feeling "afraid" of cancer, they would visit the doctor for further examination if they found a lump in their breast. The other sixty seven percent (N = 12) would visit the doctor in order to have the lump diagnosed.

3. Perceived Benefits

There was a high perception of benefits to practicing BSE within the sample (94 %). One hundred percent of the sample believed early detection of breast cancer leads to a better outcome. However, 17 % would rather not know if they had cancer. One woman did not want to know because "it will affect the mind". Another simply felt she would not get breast cancer.

The women who would want to know gave reasons that fell into the following categories: to get diagnosis, to get treatment, or simply due to fear of cancer. The majority (N = 8; 44 %) would want to know in order to get treatment as soon as possible. According to one woman, "I would want to know, so the correct treatment will be given".

All of the respondents were enthusiastic about recommending BSE to other women. Forty four percent wanted to help others be able to detect breast lumps and/ or get early treatment. Another main reason for recommending BSE to other women was to spread the knowledge and skills they had learned from the training session from the previous study. One woman said, "I was trained, then I told my daughter and others twenty years old and up, because women twenty years and up may have a chance to get breast cancer".

Three of the women wanted to help other women "prevent" breast cancer. It was not clear whether the, believed BSE to be primary or secondary prevention however.

4. Perceived Barriers

Only nine percent of the sample perceived barriers to practicing BSE. One hundred percent of the sample found BSE convenient to perform. However, three women (17 %) did not have enough privacy and three were unable to examine their breasts in a mirror. A small number of women (N = 2; 11 %) felt afraid of doing BSE, and two (11 %) did not feel confident about doing BSE. Only one woman (6 %) found BSE difficult.

5. Health Motivation

Overall, the sample had a strong sense of health motivation (66 %). All but one (94 %) of the women acknowledged that they consciously try to promote good health for themselves. These health promoting activities were in three categories: physical activity, seeking professional health services, and spiritual activity. The most popular response (N = 13; 72 %) for physical activity was exercise: running, walking, aerobics, swimming, work. Next in frequency (N = 5; 27 %) for the physical activity category was eating healthy food. One woman stated that she took vitamins. Another important physical activity component was rest. One woman participated in an elderly recreation club. Visiting the doctor, the dentist, and taking medicine composed the category focused on seeking professional health services. In the spiritual category, four women used prayer to promote their own good health.

6. Perceived Control

Ninety one percent of the sample reported a

sense of control over their health. In addition, the majority of the sample (83 %) reported that BSE contributed to a feeling of control over their own health. Conversely, only seventeen percent stated that they did not feel capable of controlling their health.

Knowledge and Practice of BSE

This section of the report focuses on the information gathered pertaining to the sample's knowledge and practice of BSE. One hundred percent of the women reported doing BSE, with varying degrees of proficiency. Only 33 % stated they perform it on a regular monthly basis, while 67% do not do BSE according to a schedule. The women reported a wide range of timing of BSE in relation to their menstrual cycle. Seventeen percent reported they do BSE seven days after menstruation. Two of the menopausal women do not do BSE according to a schedule.

Fifteen of the women (83 %) reported using the correct part of the hand to do BSE: the pads of the index, middle, and ring fingers. Surprisingly, sixteen women (89 %) understood BSE as a preventive against breast cancer. This understanding was not clarified during the interview so it is not known whether the women actually consider it as primary or secondary prevention, as previously mentioned.

Summary

Overall, the sample reported beliefs of high perceived susceptibility, high perceived seriousness of breast cancer, high perceived benefits to do BSE,

low perceived barriers to BSE, a strong sense of health motivation, and a high perception of control over their health. Although all of the women reportedly do BSE, average scores on knowledge and practice of BSE were not strong as the section on beliefs. The women's skills were especially lacking regarding the correct timing of BSE.

Recommendations

Because this was a pilot study collaborating between Thai and American nurse researchers with a very small sample, repeating this study using a larger sample of women may provide a more accurate picture of their beliefs about breast cancer and BSE in addition to knowledge and practice of BSE. More in-depth and open-ended questions would also provide a clearer description of this focus area. Then, interventions could be planned to empower Thai women to further promote their good health.

Many of the women in this study expressed their desire to help others learn about BSE. It may be beneficial to begin a program that can provide more training to interested women who would like to become BSE instructors within their communities. Of great importance, however, would be to make sure that the women are thoroughly proficient before beginning to train others. Some of the answers to the interview questions led the researchers to believe there is still a need for further teaching and clarification about the role of BSE and its techniques.

Appendix A
Findings: Beliefs about breast cancer,
Knowledge and practice of BSE

Question	Yes	No
Perceived Susceptibility (75 %)		
1. Is it a possibility that you will get breast cancer ?	66.6%	33.3%
2. Is it a possibility that someone you know will get breast cancer ?	83.3%	16.6%
Perceived Seriousness (100 %)		
3. Would you feel worried if you found a lump in your breast ?	100%	
4. If you did find a lump in your breast, would you visit a doctor to have it further examined? Why:	100%	
Perceived Benefits (94 %)		
5. Is it true that women have a better prognosis if breast cancer is found early rather than late ?	100%	
6. Would you prefer to know if you had cancer or not ? Why:	83.3%	16.6%
7. Would you recommend BSE to some of the women you know ? Why:		100%
Perceived Barriers (9 %)		
8. Is the technique of BSE difficult for you ?	5.5%	94.4%
9. Is it convenient for you to do BSE ?	100%	
10. Do you have enough privacy at home to do BSE ?	83.3%	16.6%
11. Are you able to examine your breasts in front of a mirror ?	83.3%	16.6%
12. Does doing BSE make you feel uncomfortable ?		100%
13. Are you afraid of doing BSE ?	11.1%	88.8%
14. Do you feel confident about doing BSE ?	88.8%	11.1%
Health Motivation (66 %)		
15. Do you visit the doctor for check-ups even though you are healthy ?	50%	50%
16. Do you visit the doctor only when you are sick ?	83.3%	16.6%
17. Does a nurse or doctor perform a breast exam on you when you visit him or her ?	38.8%	61.6%
18. Do you visit the dentist for a check-up and cleaning at least once per year ?	61.1%	38.8%
19. Do you do anything in order to promote your health ? Probe: meditation, massage, healthy food, take vitamins, exercise, rest	94.4%	5.5%

Appendix A
Findings: Beliefs about breast cancer,
Knowledge and practice of BSE

Question	Yes	No
Perceived Control (91 %)		
20. Are people able to do anything to control their health ?	94.4%	5.5%
21. Do you feel capable of having some control over your own health ?	83.3%	16.6%
22. Does BSE make you feel more in control of your health ?	94.4%	5.5%
Knowledge and Practice of BSE		
23. Do you do BSE ?	100%	
24. If so, how often do you do BSE ?		
once/ month	33.3%	
once/ two months	11.1%	
more than once/ month	44.4%	
not according to a schedule	11.1%	
25. At what point during your monthly cycle do you do BSE ?		
<7 days after menses	16.6%	
7 days after menses	16.6%	
>7 days after menses	22.2%	
before menses	11.1%	
after menses (unspecified)	22.2%	
not on a schedule	11.1%	
26. Please point to the part of your hand that ? you use for BSE.		
correct	83.3%	
incorrect	16.6%	
27. Does BSE prevent cancer from occurring ?	88.8%	11.1%
28. Can BSE detect small lumps in women's breasts ?	94.4%	5.5%
29. Can BSE be done in the shower ?	100%	
30. Can BSE be done lying down on a bed?	100%	
31. Are you able to feel the difference between normal breast tissue and breast lumps?	83.3%	16.6%

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