

Prediction of The Awareness and Practice of Breast Self – Examination among Females Using Health Believe Model. A literature review

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Abstract: Background : Women should perform breast self-examination (BSE) regularly in order to early detect any abnormality in the breasts. BSE considers an effective way used to improve awareness about breast cancer and health promotion as self-duty to maintain health.

Aim: the review aims to predict awareness and practice of breast self – examination among females using health believe model.

Method: Multi database were used and 12 studies involved in this review which focused on the awareness, practice, reason, barriers to perform BSE and health believe model.

Result: the review revealed that most participants in the studies have enough awareness regarding BSE with limited practice. Therefore, there are many factors contribute to women practice of BSE or prohibited them from perform BSE. Also HBM play a significant role in women attitude toward BSE. **Conclusion:** women who perform BSE regularly are more likely to predict BC early and most females have positive attitude toward HBM.

Keywords: Breast Awareness, Breast Cancer, Breast self –examination, Early Detection, Health Believe Model.

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I. Introduction

According to the World Health Organization (WHO), around 2 million women annually suffer from breast cancer (BC), which is one of most common causes of female death worldwide. Approximately 627,000 women died from BC in 2018, and this number increased in both developed and developing countries [1].

Deaths from BC can be controlled by early detection and proper intervention. Hence, early detection of BC is important to enhance breast cancer outcome particularly.

In fact, there are three methods can be used to early detect BC. Mammography screening is the effective method and can reduce 20% from mortality rate in women based in evidence. Clinical Breast Examination (CBE) is a useful way can be used in countries that have a low income level. Although there is limited evidence regarding benefit of BSE as a screening procedure but practice of BSE has been seen to empower women to recognize any changes in their breast. Therefore, BSE is recommend to raising awareness between women at risk rather than as a screening method [2].

Around 95% from breast cancer cases were mostly detected early by women through breast self-examination which is an effective way used to screen any abnormality in the breasts. Women should perform breast self-examination regularly till the time of mammogram and clinical breast exam in order to palpate any masses [3].

Therefore, BSE should be a part of women monthly health care especially who are at high risk such as: women over 40 or family history [4]. Even limited evidence confirmed that BSE decreased mortality rate, it considers an effective way used to improve awareness about breast cancer and health promotion as self-duty to maintain health.

Indeed, there are many factors contribute to detect women behavior about screening methods of breast cancer. One of those factors is health believe model (HBM) which consists from six items. It has a strong effect to guide women to take an action depend on their belief. Therefore, BSE is an example for women behavior to promote their health [5].

The review will reflect main finding regarding BSE awareness, practice, reason to perform, barriers and HMB in different countries.

II. Method

The researcher used multiple databases to find all relevant articles, including Google Scholar, Medline, ProQuest, PubMed, and Cumulative Index Nursing and Allied Health Literature (CINAHL). The search terms were: “breast self-examination,” “breast screening,” “health belief model,” “practice of breast self-examination,” “breast self-examination awareness,” “breast self-examination awareness,” and “performing breast self-examination.”

The inclusion criteria included full text articles, published between 2015 to 2018, in English language. However, any review articles were excluded.

III. Result

The review paper were categorized into four main areas: awareness and practice of BSE, Reason for doing BSE, Barriers to perform BSE, and health believe model. It involved 12 studies distributed in different countries and published between 2015 and 2018.

a. Awareness and Practice of BSE

Many studies carried out in different place and population address participants’ awareness and practice of BSE. Those studies are approximately agree with participants awareness regarding BSE is good with poor practices.

A descriptive and non-experimental study done in Greek included 538 nursing students reported that 4.14 ± 3.54 from participants who performing BSE regularly in last year while 291 (54.4%) performed BSE at least once. More than one half of participants (63.2%) know about BSE from health care provider and almost all of participants’ (97.6%) believed that BSE is essential [6].

In addition, a cross sectional study done in Eastern Region of Saudi Arabia involved 611 female who aged ≥ 18 . Only 43% females who were doing BSE and they informed their practiced to BSE as daily 2.7%, weekly 9.7%, and 58.3% performed BSE monthly while 29.3% annually doing BSE. Indeed, the participants’ respondents regarding steps of performing BSE and their practicing of BSE shows that women require more education program regarding BSE to enhance their attitude and practice [7].

b. Reason for doing BSE

There were many reasons encourage women to perform BSE such as: advanced age, education level, family history of breast cancer and status of menopause which are important to account women to make BSE [8].

Furthermore, a study conducted in Iran among female university students of medical science undergraduate and graduate which had 334 participants. The study showed that the educational level has statistical meaning in BSE behavior which found majority of participants (85.4%) who undergraduate/ graduate were believed in BSE. In addition, study mentioned that cognition level regarded BSE was related to education status. The main conclusion that BSE practice among university students was variety based on educational level and health believe model items. [5] (Didarloo et al., 2017)

Similar to study done in Eastern Region of Saudi Arabia which was found a significant correlation between practice of BSE and participants educational level ($P = 0.0001$). Also, knowing someone who complained from BC lead 21.8% of participants to do BSE and 2.1% of them because they had BC in the past [7].

Also, educational level has significant role in BSE behavior based on a study done in Cameron in 2017. The study found that 85.4% from participants who were undergraduate/ graduate believed in BSE. In addition, the study noted that knowledge and awareness about BSE was related to educational status [4].

The factors encourage women to perform BSE according to study in Saudi Arabia included 433 women reported that 180 of participants as 62.8 % to checked breasts regularly. While 26.7 % of participants doing BSE for early delectation of any breast change. Also, doctors recommendation to women to do BSE was play an important role in 19.3 % of participants [9].

c. Barriers to perform BSE

According to a cross sectional study done in Nigeria in 2013 women reported two main reasons lead them to do not perform BSE which include 47.6% thinking they are not at risk to have BC and 47.6% do not know how to implement BSE [10].

In addition, a study done in Saudi Arabia participants informed that lack of knowledge about how to perform BSE reported in more than half of participants (54.9 %) which considers the main reason. Around one quarter of participants (24.5 %) mentioned that lack of self-confident to perform BSE correctly was barrier to do BSE [9]

On the other hand, there is a study done in Turkey in students concluded different reasons of forbidding practice BSE as misunderstanding about importance of BSE, anxiety and thought that BSE was useless and waste their time. In addition, forgetting to perform BSE which is considered the main barrier [11]

According to study done in University of Buea in female students of age's 17-30years who concluded their reasons for not performing BSE as they have poor knowledge (44%), no breast cancer signs (36%), forget to perform BSE (19.9%), don't have enough time to perform BSE (9.6%), and fear from presents any abnormality (7.8%) (Nde et al., 2015) In addition, economic issues, insufficient education, fear and feeling ashamed are reasons prevented women from doing BSE [3]

Moreover, a study done in British citizens women to inspecte the reationship between breast size dissatisfaction and rate of performance of BSE in women who aged between 18 to 76 years and their body mass index from 14.70 to 46.99. Study found that large breast size displeasure were a significant related to less performing BSE because of lower confidence which was responsible to reducing the ability to detecting any abnormality in the breasts [12]

d. Health Believe Model

Health believe model (HBM) has been the most popular conceptual framework that used in health behavior since 1950. It has 4 main constructs influence personal health behavior which are perceived susceptibility, perceived severity, perceived benefit, and perceived barriers. Later on, HBM expanded to six items after added cues of action (motivation) and self-efficacy [13].

In 1984, Champion assess HBM concepts to use breast self-examination as screening for breast cancer which was developed validation scales for perceived susceptibility, severity, benefits, and barriers to breast self-examination. Moreover, Champion in 1999 added the measure scale for self-efficacy. Perception benefit from breast self-examination includes decrease the harm that breast cancer caused by discover lump early. However, forgetting to perform BSE, fear from finding lump in the breasts and lack of time were consider barrier behavior regarding BSE [14].

A quasi -experimental research study done at Umm al Qura University between medical and non-medical students to determine students beliefs regarding breast cancer screening depend on HBM. It was found that Health believe model and its items have variety affect in students attitude towards BSE. Some items like perceived susceptibility and perceived severity were have same affects in both 2 groups of students. In the other side, perceived benefits, perceived barriers, motivation and self-efficacy were have significant difference between both groups [15].

Moreover, in 2018 a study conducted among students and employees from different Tabuk university departments shown that women response toward susceptible to BC in the future were among 58.3% of the participants, while participants who do not know constituted 36.2%. Seriousness of BC, around half of participants (45.4%) were not sure about the dangerous of BC but women who know seriousness of BC were about one third of the participants (33.3%). In addition, most of women agree with benefits of BSE, while 8.3% who mentioned barriers to perform BSE. Only 21.5% from participants who perform BSE confidently. The last items were motivation which play an important role in 70% of women to perform BSE but who not sure 24.8%. [16]

A cross sectional study carried out in Urmia University of Medical Sciences in Northwest Iran to investigate predictors of BSE behavior which was found association between BSE behavior and HBM constructs. Perceived self-efficacy toward BSE was high among students who behavior BSE (17.1%) when comparing with other group (2.8%) and there was statistically significant differences between participants self-efficacy and BSE behavior ($P < 0.001$). Both groups who BSE behavior and without BSE behavior perceived high benefit toward BSE (64.6%, 42.9% respectively). A statistically significant differences between perceived benefits and BSE behavior ($P = 0.001$). Perceived barriers among two groups was moderate with 23.22% students whose behavior BSE and 29.8% without BSE behavior. There is no statistical significant relationship between participants' perceived barriers and their BSE behavior ($P = 0.249$). Participants with BSE behavior had high perceived severity (40.3%) and participants without BSE behavior (22.6%). The association was statistically significant between perceived severity and BSE behavior ($P = 0.008$) [5].

A study done in nursing students aimed to determine students' perception toward health believe and breast self- examination. It was found that students who had not been previously educated about BSE was significantly higher in confidence ($P < 0.001$) and health motivation ($P = 0.008$) than students who had been educated about BSE. While students who previously educated about BSE was significantly higher in seriousness and barriers regarding BSE ($P = 0.024$ and $P = 0.012$, respectively) than students who were not educated. Also, last/seventh semester students were significantly higher on health motivation ($P < 0.001$) and confidence ($P = 0.036$) than who in first semester. However, barriers subscale score was significantly higher in the first semester students than seventh semester students ($P < 0.001$) [6].

Indeed, “women who believe that they are susceptible to breast cancer and that breast cancer is a serious disease, but they perceive more benefits of and fewer barriers in performing BSE are more likely to perform BSEs” Likewise, women who maintain their health due to motivation have high confidence to practice BSE [6].

IV. Conclusion

The review presents studies related to BSE awareness, practices, reason to do, and barriers to perform BSE. Also, health believe model and how it influences behavior regarding breast self-examination. In order to find all information the researcher collect all studies after intensive research in different database.

At the end, breast self-examination is an effective tool women can used to enhance breast awareness by examine their breast. The regular examination assist women to be familiar with their breast and can easily recognize any abnormality while their looking or feeling. Therefore, early detection of any changes in breast could be help to early diagnosis and increase survival rate from breast cancer regardless the limitation of studies shows the relation between decrease mortality rate and breast self- examination.

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