

Empowering Health: A Comprehensive Concept Analysis of Breast Self-Examination for Proactive Breast Health Management

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DOI: 10.55489/njcm.150320243682

ABSTRACT

The review paper discusses the concept of breast self-examination (BSE), a vital screening method for early detection and diagnosis of breast cancer. It uses the Walker and Avant analysis method to develop an operational definition, identify critical attributes, antecedents, consequences, and empirical referents of BSE. BSE is crucial for early detection and survival rates, especially in developing countries. It is a cheap and accessible technique for detecting abnormal cells in normal breast tissue, making it useful in underdeveloped countries with limited resources. Defining attributes of BSE include breast awareness, breast examination for lumps and changes, a screening measure for detecting breast cancer, recommended timing after the menstrual period, primary prevention of breast cancer, self-awareness aiding in early detection, and cost-effectiveness in resource-poor countries. The paper also discusses antecedents and consequences of BSE, including knowledge and perception about BSE, personal and family history of breast cancer, health literacy campaigns, education level, increasing age, obesity, and reproductive factors. Conclusions of BSE include the practice of BSE and early detection of breast cancer, motivation towards screening, self-awareness, physical activity, and self-efficacy. The paper provides empirical referents for measuring and assessing BSE, such as structured questionnaires, scales based on health belief models, knowledge tests, and health action process approaches.

Keywords: Breast cancer, Breast cancer awareness, Breast self-examination

ARTICLE INFO

Financial Support: This research project is supported by the Second Century Fund (C2F), Chulalongkorn University Bangkok, Thailand

Conflict of Interest: None declared

Received: 02-01-2024, **Accepted:** 22-02-2024, **Published:** 01-03-2024

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How to cite this article: Naz S, Thanasilp S, Wiserith W. Empowering Health: A Comprehensive Concept Analysis of Breast Self-Examination for Proactive Breast Health Management. Natl J Community Med 2024;15(3):238-243. DOI: 10.55489/njcm.150320243682

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www.njcmindia.com | pISSN09763325 | eISSN22296816 | Published by Medsci Publications

INTRODUCTION

Breast self-examination is very important screening technique for detecting and diagnosing the breast cancer at an early stage.¹ The analysis of this concept was performed according to the analytical method proposed by Walker and Avant (1995). Females should examine their breasts on regular basis for detecting any abnormality to get medical attention instantly. BSE is a economical and easier to perform method for detection of any type of abnormal cells inside the tissue of breast, because it has been proven that early detection of breast cancer increases the survival rate of patient.² The incidence of breast cancer is rising all around the world, particularly in developing countries. Many methods for detecting breast cancer early-on in its course are now available, of which the most convenient is breast self-examination (BSE). Breast self-examination is “inexpensive, simple and does not require any specialized equipment or regular visits to the hospital, thus proving its usefulness in underdeveloped countries too, which lack resources.³ In addition, performing BSE on a regular basis makes women accustomed to the normal appearance and feel of their breasts and they are able to notice any changes in their breast as soon as they present”.⁴ The BSE is a beneficial method in countries with low-income, where health checkup in routine is not very common and screening facilities like a mammogram are scary and expensive. By the time 85% of patients visit specialized care the tumor is more than 5 cm.⁵

Although many studies have been done on awareness and practice of breast self-examination and it's not a new in present era. But I will explore this concept in under developing countries. International research groups have recommended that BSE programs may help specific populations in countries with low-resource. The purpose of this analysis is to analyze and clarify

the concept of Breast self-examination, so that Nurses and other health care professionals involved in research and clinical practice can get advantages by clarifying this concept and give awareness about breast self-examination to women in underdeveloped countries for detection of breast cancer at early stage to improve quality of life of survivors.

AIMS OF THE ANALYSIS

The general aim of the analysis was to evaluate the idea of Breast self-examination, specifically when this term is being used from a medical perception and is related to detection of breast cancer at early stage. The analytical method presented by Walker and Avant (1995) is used to analyze this concept.⁶ The aims of the analysis were to develop an operational definition for Breast self-examination; to determine the critical or defining attributes of breast self-examination, including cases examples; to identify

the consequences and antecedents of breast self-examination; and to identify the empirical referents intended for the critical attributes of self-examination of breast.

Use of the Concept and Definitions:

Self-examination of breast has uses in medicine and nursing prospectives. Using the key word “Breast self-examination” or “Breast Awareness” with databases available online e.g. Google scholar, Medline, PubMed, there are many studies related with concept of self-examination of breast.

From the medicine perspective, **breast awareness** is the concept that has replaced Breast Self-Examination (BSE), which endorses that women should be aware or familiar with any abnormality in their breasts and should promptly report if find any change. Breast awareness is different from BSE because it does not have any formalized instruction based in clinical settings.⁷ In BSE there is a procedure for **examining breast** in which a woman herself examines and inspects her breasts to find presence of any lump or any change in shape or color, which may result due to abnormal growth and development of cells in the mammary glands. It also provides the awareness to the women about normal characteristics of her breasts like normal appearance, and ability to feel, and identify changes in breasts. These changes could occur in the breasts shape or size, dimples in skin of breasts, the presence of lumps, changes in color of breast like redness or black patches or discharge from nipples.⁸ Breast self-examination (BSE) is performed by a female herself in which she examines herself visually and physically to find out any changes taking place in the breast. It is very important **screening process** for detection of breast cancer.⁹ Third to fifth day after menstrual cycle are the best **time for doing BSE**, because at this point the breasts are neither lumpy nor tender in normal conditions. It should be done once in a month.¹⁰

For preventing cancer of breasts Breast at primary level, self-examination (BSE) is the most important and first strategy. It is advised commonly by healthcare experts as a screening method for early detection of breast cancer, due to its simplicity, easiness, quickness, privacy, cost-effectiveness and safety. Thus, it is highly recommended for identification of abnormal breast lumps which need a more and further medical advice as well as examination.^{11, 12} The main focus of BSE is on the effectiveness and importance of breast self-awareness which helps in early detection of breast cancer as tumors of size of as small as 1 cm can even be detected by BSE.⁵ BSE is a quick, easy, private, convenient, safe and cost-free practice for which no paraphernalia is required. Women performing BSE should be familiarized with feel and appearance of their breasts, that helps them to detect any type of change at earliest stage and seek the medical help. For best result by BSE the women should be taught to have awareness of their

breast from the early age of puberty. This will help them to detect even a change at single point and to present to the hospital at the earliest as soon as possible.¹³

In poor and developing countries, this practice of BSE is very cost-effective technique for detecting breast cancer.¹⁴ Breast self-examination contributes and plays a very important role among populations with limited resources and areas which have limited access and approach to good health care.¹⁵ In areas with less resources, there is no or limited access of people to good health facilities or care and availability of mammograms. Studies have shown that greater than 90% of cases of breast cancer have been found to be detected by the women themselves, and majority of early self-discoveries are by BSE performers.¹⁶

From the perspective of nursing profession, nurses can play an important role in providing correct information and orienting the females with significance of breast self-examination.¹⁷ However, the term of "Breast self-examination" or "practice of breast self-examination" was not found in NANDA nursing diagnosis, major diagnosis was related with breast cancer.¹⁸ The self-examination is a way of care for a person by her/himself and taking immediate or proper action for health management. This is carried out by that person him/herself for his or her own benefit, according to his or her own developmental, physiological and behavioral requirements. It is done by the activities through the person feels comfortable.¹⁹ Therefore, the theory of Self Care in nursing is selected to explain this concept, which is defined as

the group of actions or activities carried out by a person deliberately and consciously for his own benefit in order to maintain his or her health, life and well-being.²⁰ It determines that the person who is doing self-care should know his or her own necessities, and he should be able to recognize them. He or she should know about limitations and conditions, which he or she should adopt in order to improve the health conditions. This proposes the human skills development under the influence of basic and major conditioning factors, like age, sex, development condition, health state, family system, sociocultural orientation, environmental factors, life standards, availability of resources, and adequation. The self-care requirements are comprised of activities or actions, which are aimed for the provision of necessary practices and knowledge to functioning of human development and its maintenance.²⁰ So, the concept of breast self-examination is mainly related with breast cancer, as a one of screening methods for early detection of BC.

Defining Attributes

The most important characteristics of concept analysis are the Critical Attributes related to that concept (Table 1). When literature review is done, the researcher comes across them many times, repeatedly. For Breast self-examination, following critical attributes have been formulated after reviewing the literature based on definitions, consequences and antecedents:

Table 1: Attributes of Concept Analysis on BSE

Attribute	Explanation
Breast awareness	Women should be familiar with the physical appearance and condition of their breasts and whenever they feel any change, they should report promptly to physician about that change. ⁷
Breast examination	A woman examines and inspects her breasts to detect lumps and any type of changes in color or shape, due to any abnormal growth in the mammary glands. ⁸
Screening measure	for detecting breast cancer by examining herself visually and physically to find out any changes taking place inside the cells of breast. ⁹
Time to do a BSE	The best time to do BSE is about 3rd to 5th day of after the menstrual cycle or period, because at this stage the normal breast is neither tender nor lumpy, and any abnormal lump or growth can easily be found or detected in soft tissue. It is done once in a month. ¹⁰
Primary prevention of Breast cancer	It helps in identification of abnormal lumps in breast, that is why it is highly by the healthcare practitioners. It is a fast, simple, easy, safe, private, and cost-effective procedure, for detection for breast tumors at early stage, which should be further examined by some medical or clinical technique. ^{11, 12}
Self-awareness	It helps in early detection of tumors even of the size of 1cm. ^{6,13}
Cost effective method	In developing and poor countries, it is very economical and almost free of cost method for detection of tumor in breasts. ^{14,15,16}

Construction of Cases:

Model case

The model case covered all the attributes of breast self-examination as mentioned by walker and Avant (1995).⁶

"A 27 years old lady living in a small city of India, was busy in watching TV. She saw advertisement by a nurse, which recommended about breast awareness so that women could be familiar with their breasts and promptly report any change as safe and early measure of screening to detect breast cancer. she remembered

that its 3rd day after her menstrual cycle. So as routine she has to performed more economical cost-effective method to examine her breast for any changes in shape and color as a result of abnormal growth of cells at early stage of breast cancer. This practice was her self-awareness of body part to detect tumors of even the size of 1cm”.

Additional cases

Borderline: The borderline case missed some attributes⁶ such as the timing of performing or doing Breast self-examination.

“Yasmeen (a 29-Year-old lady) visited hospital for changing her contraceptive method. During talk she told doctor about her family history of breast cancer. She knew about most cost-effective method of breast awareness which recommends that women be familiar with their breasts and promptly report any change. She inspected her breasts when she remembers, as self-awareness for detecting any abnormal growth of breast cancer”.

Related case: This case also contains some characteristics but not all of model case as in scenario,⁶ she was suffering from disease but can help her daughters for early detection of breast cancer.

“Mrs. Mehreen Nawaz (a 50 years old lady), was suffering from breast cancer from last 10 years. She has three daughters. All three were living in different cities after their marriages. Every month she never forgot to remind her daughters about breast examination by themselves in order to identify as change in shape and color of breast to detect sign of cancer like lump so that breast cancer can be identifying at early stage. She was actually afraid from her own situation because she was not aware and now was suffering breast cancer at advanced stage”.

Contrary case: This case is totally different from the concept⁶ of analysis such as breast self-examination as concern in on obesity control, but obesity has link with breast cancer.

“Ms. Sana (24 years old, university student) was attending a workshop on obesity control which is one of the risk factors for breast cancer. During the session, health professional taught about physical activity and balanced nutrition. She was actually interested in weight control through only diet control not by physical activity because she had no time for doing exercises”.

Illegitimate case: Case purpose is different from model case.⁶ This related with breast inspection in term of protection of her little one from infection.

“Mrs. Maryam, a lactating mother always have a habit to clean breast before given feed to her little one. She realized that breast cleaning is important for her kid to prevent him from infection”.

Antecedents and Consequences:

Antecedents: Antecedents are those events or incidents that must occurs or be in place prior to occurrence of concept. Literature reveals many antecedents related with concept of breast self-examination. These includes higher/good knowledge and perception about BSE^{3, 21-25}, personal & family history of breast cancer.^{23-25, 27}, health literacy campaigns for awareness about BSE^{28, 29}, participants level of education^{23, 30}, increasing age^{19, 21, 23, 24, 27, 30, 31}, obesity^{21, 24, 32}, and contraceptive use, late menopause, never breast fed, and late age at first child.^{24, 32, 33}

Khan³⁴ stated that advocating health literacy through social media, breast clinics teaching can significantly affect the breast self-examination practice in women for early detection of breast cancer. In contrast, several factors that may encumber the practice of breast self-examination like Practice marital status^{23, 21} religion & family type¹⁹and socioeconomic status & cultural factors.³⁵

Consequences: Consequences includes practice of BSE and early detection of breast cancer^{3, 21-25}, motivation towards screening of breast cancer for early detection of breast cancer^{3, 22-25}, self-awareness regarding normal breast structure and identify any sign of breast cancer like lump, pain in breast etc.^{24, 27}, physical activity to decrease weight and risk of breast cancer²², and self-efficacy (SE) positively intention to conduct future breast self-exams^{36, 37} as a primary prevention of breast cancer.

Empirical Referents

Empirical referents are crucial for measuring the concept or to determine the occurrence of the concept in the real world.

- Structured Breast Self-Examination Questionnaire (BSEQ).²¹
- Champion Health Belief Model Scale.³⁸
- The Breast Cancer Investigation Questionnaire (BCIQ) literature based.³⁹
- “Breast Cancer Awareness Measure,” developed by Cancer Research UK, King’s College London, and University College London in 2009.⁴⁰
- Breast cancer knowledge test (BCKT) literature base.⁴¹
- Health Action Process Approach (HAPA) is a comprehensive model that has been developed in 2008 for assessing the health promotion behaviors, especially breast cancer. HAPA included constructs like risk perception, outcome expectancies, action self-efficacy, maintenance self-efficacy, action planning, coping planning, action control, behavioral intention, and recovery self-efficacy that could predict the health behaviors, especially breast self-examination.⁴²

CONCLUSION

Concept paper identifies several defining attributes of BSE, including breast awareness, breast examination for lumps and changes, a screening measure for detecting breast cancer at early stage, recommended

timing after the menstrual period, as a primary prevention of breast cancer, and cost-effectiveness in resource-poor countries. Breast self-examination; antecedents, critical attributes, consequences, and empirical referents presented in figure 1.

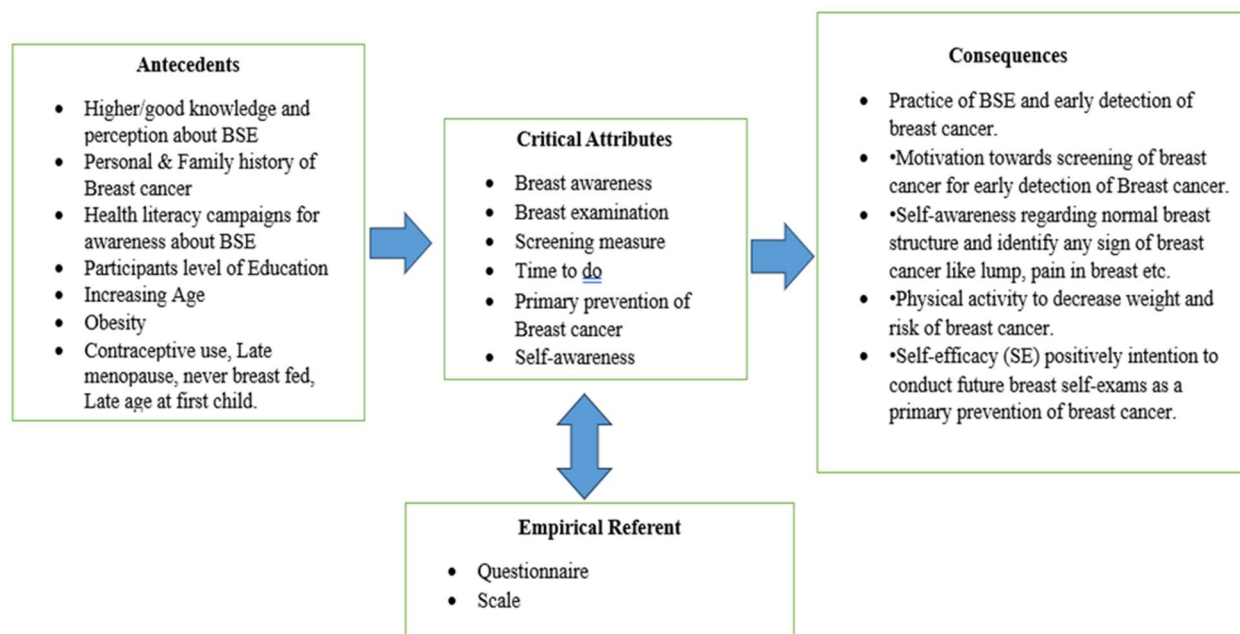


Figure 1: Breast self-examination; antecedents, critical attributes, consequences, and empirical referents

ACKNOWLEDGEMENT

This paper is part of the dissertation of Mrs. Sumaira Naz, a Ph.D. student in the Faculty of Nursing, Chulalongkorn University, Thailand.

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