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Proportion of Breast Self-Examination Practice and Its Associated Factors Among Female Health Professionals in Govt. Medical College Hospital, Thiruvananthapuram

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ABSTRACT

Breast cancer is a leading cause of death among females across the globe. Breast self- examination is considered as a cornerstone testing method for breast cancer screening and early detection. Breast Self Examination is one of the simple, quick and cost free procedures for early detection of breast cancer among women. The Present study was intended to estimate the proportion of Breasts self examination practice and its associated factors among female health professionals in Government Medical CollegeHospital, Thiruvananthapuram. The research design adopted for this study was descriptive cross sectional design. The sample consists of 330 female health professionals. Sample fulfilling the eligibility criteria were selected through simple random sampling method and data were collected by giving questionnaire. The collected data was analyzed by using SPSS version 23 and the results were expressed in descriptive and inferential statistics. The collected data showed that about 68% of the participants were doing breast self examination practice and there was a significant association between breast self examination practice and associated factorssuch as age, basic qualification, highest qualification, profession, years of experience, screening for breast cancer and knowledge and attitude regarding breast self examination practice.The study concluded that adressing all these factors can improvebreast self examination practice among female health professionals.

Keywords: Breast Self-Examination, Breast Cancer, Health Professionals

Introduction

Breast cancer is the most frequent cancer among women and the principle cause of cancer related death, which is ranked as the second leading cause of death from cancer in women. The early detection of breast cancer plays an important role in decreasing morbidity and mortality of breast cancer. Breast cancer is a malignant tumour that starts from the cells of the breast. It occurs mostly in women, but men canalso be affected[1]

Breast Self-examination is a common screening method which is done by the patient herself as an effort to detect the presence of breast cancer in its earliest stages by physically examining both the breasts for

the possibility of any lumps, distortions, or swelling[2.]

Breast self examination involves the woman looking at and feeling each breast for possible lumps, distortions, or swellings. Breast self examination is a simple exercise that can potentially save women's lives, Breast cancer is the most prevalent malignancy among female populations and is responsible for the second-highest number of cancer-related deaths in American women[3,4] .Breast Self-Examination was initially proposed as an intuitive, inexpensive, non-invasive, and universallyaccessible means of promptly identifying early-stage breast neoplasm. Unfortunately, this potential screening tool's positive aspects cannot be considered without the evidence contradictory to its value. Any evaluation of breast self-examination must include that current medical literature does not support the efficacy of the practice and that general implementation is discouraged by most medical societies and academies.

International groups have suggested that breast self-examination programs may benefit specific populations in low-resource countries; however, this idea also remainsunder consideration. Despite studies refuting the utility of breast self-examination, proponents and breast cancer awareness organizations continue to encourage the controversial practice and seek to educate the public on proper implementation.[5.].Breast self examination practice is cost effective, convenient, painless, easy to apply, private, safe ,and non- invasive screening methods made by each women for early detection of breast cancer[6]

The ongoing epidemiological, socio-cultural and demographic transition by accentuating the associated risk factors has disproportionately increased the incidence of breast cancer cases and resulting mortality in developing countries like India. Early diagnosis with rapid initiation of treatment reduces breast cancer mortality. Therefore awareness of breast cancer risk and a willingness to undergo screening are essential. A study conducted among 222 adult women in Delhi revealed that, about 41.4% of the participants were practicing BSE once a month. Some 48% knew mammography hasa role in the early detection of breast cancer. Since almost three-fourths of the participants believed BSE could help in early diagnosis of breast cancer, which is not supported by evidence, future studies should explore the consequences of promoting BSE at the potential expense of screening mammography. In developing countries, breast self examination is the recommended method, because it is easy, convenient, private, safe and doesn‟t require equipment. Evidence indicates that lack of time, lack of self confidence, inability to perform the technique correctly, fear of possible embracement are considered as hindrance of breast self examination.

Breast cancer is a major public health problem worldwide and it is the second leading cause of death in the United States. Globally 2.4 million new breast cancer cases and 53,000 deaths occurred in each year. In the present scenario, 1 in 26 women are expected to be diagnosed with breast cancer in their life time. According to WHO, 1.5million womens are having breast cancer in 2011. Breast cancer is one of the most commonly diagnosed cancers, which accounts for 1.7 million (11.9%) in 2012, and there were 6.3 million women alive who had been diagnosed with breast cancer in the past 5 years[7.] . In 2012 1.7 million women were diagnosed with breast cancer and there were 6.3 million women alive who had been diagnosed with breast cancer in the previous 5 years. Breast cancer incidence has increased by 14%. In 2013, an estimated 232,340 new cases and 39,620 deaths from breast cancer are expected to occur in women. An estimated 231,840 new cases in and 40,290 deaths of breast cancer are expected to occur among women in the US during 2015.[8.] In 2017, incidence of invasive breast cancer was about 252,710 with expected mortality of40,610 died from breast cancer.[9] Most of the early breast tumours are self discovered and the majority of early detection by breast self examination and 80% may be detected by expert professionals.[10,11] In 2020, it was estimated that 685,000 women died from breast cancer that is approximately 15% of all cancer

deaths among women globally.[12] In 2023, 1,958,310 new cancer cases and 609,820 cancer deaths are projected to occur inthe United States, according to American cancer society. It is estimated that breast cancer with 2,38,908 cases is expected to be the most common site of cancer in females in 2025.[13]stage at diagnosis of breast cancer is the determinant of treatment options and prognosis. The magnitude of breast self examination varies among different segment of females. Breast cancer rates are increasing in India and it is found to be 25.8 per 100,000 females.[14]In India 74.5% health professionals were practicing breast self examination at least once in a month in central India,Nagpur[15]It is estimated that breast cancer with 2,38,908 cases is expected to be the most common site of cancer in females in 2025.[16] The annual incidence of breast cancer in Kerala has gone up from 17.4 per 100,000 in 1991 to the current rate of 32 per 100,000 in 2010. In 2010, Kerala recorded a total of 1,618 breast cancer death among women. In Kerala the prevalence rate in rural area is 19.8 per 100,000, while in urban areas, it is
30.5 per 100,000.The estimated incidence of cancer cases is increasing in Kerala .In 2016, cancer incidence rate of Kerala was 135.3 per 1 lakh people and in 2022, it has jumped to almost 169 per 1 lakh population. The mortality rate in the state is now about 92 deaths per 1 lakh population.[17]Cancer incidence among women in urban Thiruvananthapuram has been going up. IARC estimates the incidence of BC in Thiruvananthapuram could be moderately high at 65 per 100,000 among women in 30to 60 years of age. A cross sectional study was conducted in Thiruvananthapuram among female health care workers revealed that only 39.6% had done screening for breast cancer and remaining 62.38% were never done any type of screening for breast cancer.[18]Health care providers are one should provide adequate information on BC screening to general population. With more accurate, and complete information, women might be motivated to participate in BC screening rather than just hoping that they would not have BC, because they do not have symptoms, had breastfed, or do nothave a family history etc so for that adequate knowledge must be there for health care workers and they should done the screening practice for their health and also for motivating others. Therefore this study attempted to assess the breast self examination practice and associated factors using input from different works of literature and applying the standard and current definition of breast self examination. However, it is not widely practiced due to various problems. This study aimed to assess the magnitude of practice of breast self examination and its contributing factors among health workers.

STATEMENT OF THE PROBLEM

A study to assess the Proportion of Breast Self Examination Practice and its Associated Factors among Female Health Professionals in Government Medical College Hospital , Thiruvananthapuram.

OBJECTIVES OF THE STUDY

- Estimate the proportion of Breast Self Examination practice among female healthprofessionals.
- Identify the factors associated with Breast Self Examination practice among female health professionals

OPERATIONAL DEFINITIONS

Proportion: It is the total number of participants performing breast self examination among femalehealth professionals.

Breast Self Examination: Breast Self Examination means systematic inspection and palpation for entire breast for the early detection of breast cancer. In this study Breast Self Examination refers the routine

examination which is performed daily, weekly, monthly or once in a while.

Practice: Practice refers to the performance of breast self examination that is performed either daily, weekly, monthly or once in a while.

Health professionals: Any female who is holding health professional degree namely Medical, Nursing, Pharmacy, Dental and Medical laboratory technician and working in Govt. Medical College Hospital , Thiruvananthapuram.

Associated Factors: In this study, associated factors includes personal information includes age, religion, marital status, place of residence, education, profession, years of experience, historyof breast cancer, family history of breast cancer, history of lump, reason for performing BSE, screening for breast cancer, knowledge, and attitude of breast self examination practice.

ASSUMPTIONS

1. The practice of Breast Self Examination varies among health care professionals.
2. There are many factors which may be associated with Breast Self Examinationpractice among health care professionals.

CONCEPTUAL FRAMEWORK

A conceptual framework presents logically constructed concepts to provide general explanation of the relationship between the concepts of the research study without using a single existing theory. It helps to understand the study concepts and their relationship with each other to provide foundation for theory testing or theory developmental research.[23]

The conceptual framework for this study is based on Nola J Pender"s Health Promotion model. The health promotion model notes that each person has unique characteristics and experiences that affect subsequent action. The set of variables for behavioural specific knowledge and affect have important motivational significance. These variables can be modified through nursing action. The model provides a framework to examine influences in participation in health promoting behaviour and provide direction for effective intervention[24]

The major concepts of the model are specific individual characteristics and behaviour specific cognition and affect. They were used to select the specific study variables are conceptualized within the model. The individual characteristics include prior related behaviour and personal factors. Behaviour specific cognition and affect are factors arethe perceived barriers to action, perceived self efficacy, and activity related affect, interpersonal and situational influences. These factors and cues to action serve as variables to influence the individual to commit to in health promoting behaviour.

Application of Pender's Health Promotion Model in the study Individual characteristics and experiences

The individual characteristics and outcome are divided into prior related behaviour and personal factors. This seeks to utilize past experience and behaviour to assess the possibility of change. It identifies patterns that are beneficiaries, the strengths and weakness and is great way to create a platform to formulate a plan of action.

Prior related behaviour

Prior behaviour and inherited and acquired characteristics includes inadequate knowledge regarding BSE and poor skill in the practice of BSE.

Personal factors

Personal factors are categorized as biological, psychological and socio-cultural. These factors are predictive of a given behaviour and shaped by the nature of the target behaviour being considered.

- **Physical:** Age and marital status
- **Socio cultural factors:** Religion, occupation, education, monthly income and typeof the family.
- **Psychological factors:** Self-motivation and perceived health status.

Behaviour specific cognitions and affect

It includes perceived benefit of action, perceived barriers to action, perceived selfefficacy, activity related affect, interpersonal influences and situational influences.

- Perceived benefits of action include early identification of abnormalities in breastand breast cancer.
- Perceived barriers to action that perform BSE are lack of confidence, lack ofknowledge, lack of time and lack of motivation.
- Perceived self-efficacy is health professionals awareness towards BSE andcompetence in. doing BSE
- Activity-related to affect include influence of positive attitude towards BSEinterest demonstrated by female health professionals
- Interpersonal influences are cognition-concerning behaviours, beliefs, or attitudesof the others.
- Here, situational influences are need pressure to learn in doing BSE

Behavioural outcome- health promoting behaviour

Health-promoting behaviour is the endpoint or action outcome directed toward attaining a positive health outcome such as optimal well-being, personal fulfilment, and productive living

- Here, health promoting behaviour expected is performing BSE regularly in correctmethod.
- Competing demand are work and personnel responsibilities

Commitment to plan of action is the structured questionnaire to assess the breast self examination practice and its associated factors.

Research approach

The present study was to find out the proportion of Breast Self Examination Practice and its associated factors among Female health professionals in Govt. Medical College Hospital, Thiruvananthapuram. So the research design adopted for the study was quantitative.

Research design

The study was intended to estimate the proportion of Breast Self Examination Practiceand its associated factors among female health professionals. The research design adopted for this study was cross sectional design.

Study variables

Outcome variables – Proportion of Breast Self Examination practice among femalehealth professionals. Exposure variables – Factors associated with Breast Self Examination practice Factorsassociated with Breast Self Examination practice among female health professionals

Setting of the study

The setting of the study was Govt. Medical College Hospital, Thiruvananthapuram.

Population

In the present study, population comprised of all female health professionals working in Govt. Medical College Hospital, holding any one of the professional degree namely Medical, Dental, and Nursing, Pharmacy and Medical laboratory technology.

Sample

Sample for the present study consists of female health professionals working in Govt.Medical College Hospital , Thiruvananthapuram holding any one of the professional degree namely Medical, Dental, Nursing, Pharmacy and Medical laboratory who are satisfying the eligibility criteria.

Sampling technique

Sample fulfilling the eligibility criteria were selected through simple random sampling method.

Inclusion criteria

- Any female who is holding a professional degree namely Medical, Nursing, Dental, MLT and who are working in Govt. Medical College Hospital, Thiruvananthapuram.

Exclusion criteria

- Participants who are not willing to participate in the study.

Tool and Technique

The following tool was selected to collect the data to estimate the proportion of breast self examination practice and its associated factors among female health professionals.

Tool 1 : Questionnaire to assess the personal information of the participant.Technique : Self report

Tool 2 : Likert scale to assess the attitude towards breast self examination practice.Technique: Self report

Description of the tool

The tool has four sections, personal information, practice of breast self examination, factors affecting breast self examination practice and Likert scale to assess the attitudetowards breast self examination.

Section I: Personal information

Consisted of items including age, religion, marital status, place of residence, education, profession, years of Experience, history of Breast cancer, family history of breast cancer, history of lump, reason to perform BSE, screening on breast cancer.

Section II: Practice of Breast Self Examination

Consisted of the details regarding practice of breast self examination collectedby using questionnaire.

Section III: Factors affecting Breast Self Examination

Consisted of the items including knowledge of breast self examination, historyof breast cancer, breast cancer screening, collected by using questionnaire.

Section IV: Five point Likert scale

Five point Likert scale consists of 24 items that measures attitude of femalehealth professionals towards breast self examination.

Reliability and content Validity of the tool

In order to establish the reliability and content validity of the tool, it was submitted to 4 experts in the field of Community Health Nursing, and Department of Oncology andCommunity Medicine. The experts have given the valuable suggestions on tool and necessary modifications have been made with the help of the guide. In this study reliability of the tool was analyzed by using chronbachs‟ alpha. The estimated reliability of the tool was 0.7 Practicability of the tool was tested through pilot study and found that it can be used for the main study.

Data Collection Process

After getting approval from Institutional Research Committee, Institutional Ethics Committee, Kerala

University of Health Sciences and Govt. Medical College Hospital Thiruvananthapuram, the data collection was conducted in Govt. Medical College Hospital, Thiruvananthapuram. A total of 330 participants were recruited simple random method based on the eligibility criteria. After a brief introduction, the investigator explained the purpose of the study and ensured the comfort of the study participants during the process of data collection. Written informed consent was obtained from the participants, who are willing to participate in this study and assured the confidentiality of data being collected. The personal Information data, practice of breast self examination, factors affecting breast self examination were collected by questionnaire and it takes about 30 minutes to collect the data from the participants.

data analysis

The baseline data of the participants were explained in terms of descriptive statistics. The proportion of Breast self examination practice was expressed in terms of descriptive statistics as frequency and percentage. The factors associated with breast self examination practice was evaluated by multivariate logistic regression analysis.

Result

Section I: Distribution of participants based on Personal information of theparticipant

The present study is carried out among 330 participants, in which most of the participants 31.7% belong to the age group of 30 – 34 years and only 3.6% were in the age group of 50 -54 years. In the present study, 59.2% were Hindus, 26.3% were Christians and 14.5% were Muslims. Based on marital status, 60.7% were married 38.7% were single and 0.3% were divorced and separated. In the present study, 65.6% were residing under urban areas ,33.8% were residing rural areas and only 0.6% were residing under coastal areas. From the study finding it is evident that 32.6% were qualified as BSc Nursing ,26.6% were MBBS ,16.6% were BDS, 13.3% were MLT technicians ,6.9% were qualifies as B.Pharm and only 3.9% were belonged to general nursing and midwifery courses .Majority of participants 80.7% were graduated, 18.1% were post graduated and only 1.2% were belonged to super specialty and M Phil. In the present study, Only 36.9% were nursing officers, 26.3% were MBBS , 17.2% were dental doctors ,13.3% were lab technicians and 6.3% were pharmacist. Regarding the experience, 74.6%were having less than 10 years of experience, 19.9% were having 10-20 years of experience, and only 5.4% werehaving more than 20 years of experiences. Majority of participants 97.6% werehaving no personal history of breast cancer and 2.4% were having personal history of breast cancer. Majority of the participants 88.2% were having no family history of breast cancer and 11.8% of participants were having the family history of breast cancer. Majority 89.1% were not having the presence of lump in breast and 10.9% were having the presence of lump in breast.33.8% were having no periodic changes inbreast and majorities 66.2% were having periodic changes in breast during the time ofmenstruation. Regarding the screening test, majority of the participants 85.2% were not undergone any screening methods and only 14.8% were undergone screening methods.

Section II: It deals with the frequency of practicing Breast Self Examination Most of the participants [68.0%] were doing breast self examination practice. In thepresent study, majority 32.3% of participants were doing breast self examinationonce in a while and 27.8% were doing breast self examination monthly ,5.7% weredoing breast self examination weekly and 2.1% were doing daily .At the same time % were not practicing breast self examination .Among the participants, 48.3% were performing breast self examination for early detection and 1.5% were performing breast self examination

as they had previous breast problems , 4.8% were performing because of advice from friend, 4.5% were performing as the advice of doctors and 32.0% were not performing breast self examination practice .In thepresent study, About 41.4 % were having average knowledge, 34.4% were having good knowledge and only 24.2% were having poor knowledge.

In the present study, 35% of participants had favourable attitude , and 32.3% had moderately favourable attitude ,and 32.6% were having moderate attitude.

Section III: Factors affecting breast self examination practice

It is clear this study that there is a significant association between breast self examination practice and associated factors such as age, Basic qualification, highest qualification, designation, duration of experience, screening on breast cancer and knowledge regarding breast self examination practice.

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