

## Awareness of Breast Cancer Screening among Female Nurses in Government Hospitals in Maiduguri Metropolis

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### ABSTRACT

Awareness of breast cancer screening among female nurses in government hospitals in Maiduguri metropolis, to evaluate the knowledge of breast cancer and breast cancer risk factors, to assess the knowledge of breast cancer screening methods and early detection measures and determine the factors that influences the practice of breast screening. Materials and methods: two hundred and eighteen questionnaires was administered and retrieved. Data analysis was done using the statistical package for social sciences (SPSS) version 16. Descriptive statistics (frequencies and percentages were generated). Respondents were within the age range of 18 and 67. 18-27 had the highest frequency 77 (38.9%). Majority of them 158 (78.9%) obtained a diploma certificate. two third of the nurses (75.2%) had a good knowledge regarding the overall warning signs of breast cancer and (51.3%) had good knowledge of breast cancer risk factors. Nearly all of the respondents (90.4%) knew how to perform breast self-examination However, only 113(71.5%) practice it on a monthly basis. Knowledge and practice of clinical breast examination was very poor among the female nurses. Only 2.0% of the participants knew the exact time to start CBE. There was a very poor knowledge regarding mammography as only 13.8% of the participants knew the recommended age to start. Only 6.8% of them had mammography. Majority of the participants were not practicing breast cancer screening because they have no sign/symptoms of breast cancer. Knowledge of breast cancer was satisfactory however; the knowledge of the screening methods and practice was very poor especially the knowledge and practice of clinical breast examination and mammography.

**Keywords:** Awareness, breast cancer, screening methods and practice.

### INTRODUCTION

Breast cancer is the second most common cause of cancer death in women after lung cancer [1]. It is also the most prominent cause of cancer death among women in

low and middle-income countries accounting for 269,000 deaths (12.7% of all cancer deaths) in 2008[2, 3]. Breast cancer burden differs between countries and regions showing variations in

incidence, mortality and survival rates [4]. Women in any age range are at risk of breast cancer and the risks increases with advanced age [5]. According to the official statistics of the Egyptian National Cancer Institute, breast cancer represents 18.9% of total cancer cases (35.1% in women and 2.2% in men) [6]. In Egypt, the median age at diagnosis for breast cancer is ten years younger than in the United States and Europe [7]. Breast cancer mortality rates for African women are higher compared to women in Western countries [8].

In Nigeria, about two third of women with breast cancer are diagnosed at an advanced stage, with the possibility of metastatic spread [9]. Causes of breast cancer are unknown, thus it is a disease associated with some risk factors including ;increasing age, family history, genetic factors, obesity, Early menstruation, late menopause, nulliparity [10]. Signs of breast cancer may include: Palpable breast lump, Nipple discharge, Skin change etc.[11]

## **MATERIALS AND METHODS**

### **Research Design**

A prospective cross sectional design was used.

### **Source of Data**

Primary source of data was used through self-administered questionnaire.

### **Study Population**

All nurses working in some selected government owned hospitals in Maiduguri metropolis. Namely; Umarushehu ultramodern hospital, Mammanshuwa and State specialist hospital

### **Sample Size/Sampling Method**

198 female nurses were recruited for the study and Stratified random sampling technique was used.

## **RECRUITMENT OF SUBJECT**

### **Inclusion Criteria**

All female nurses working in some selected government owned hospitals in Maiduguri metropolis.

### **Exclusion Criteria**

All other workers in the hospitals other than female nurses.

### **Instrument of Data Collection**

Data was collected using structured self-administered questionnaire. The questionnaire contains 4 sections (A-D) with 24 questions. Section A for socio-demography, Section B for questions to assess knowledge of

breast cancer and breast cancer risk factors, Section C to assess the knowledge of breast cancer screening methods and Section D: practice of breast cancer and factors influencing the practice.

### Data Analysis

Data was analysed using statistical package for social sciences (SPSS) version 16, descriptive statistics (Frequencies and percentages were generated).

### Reliability Test

Chronbach's alpha of 0.733 was obtained after running the reliability statistics.

### Ethical Consideration

Ethical clearance was obtained from all of the hospitals that the study was conducted. All respondents consent was sought; purpose and benefit of the study was explained to all participants. Participation was voluntary and confidentiality of the respondents was assured.

## RESULTS

### Socio-demographic Characteristics of the Respondents

One hundred and ninety eight female nurses from 3 government hospitals in Maiduguri metropolis participated in the study. Majority of the respondents 77 (38.9%) aged between 18-27 years old.

55(27.8%) were in the age range of 28-37,30 (15.2%), only a few, 4 (2.0%) were between 58-67 years old. More than half of the respondents 112(57.1%) are married and the remaining half 83 (42.3%) are single. Majority of the respondents 158 (78.9%) obtained a diploma certificate, few of them 36 (18.2%) had degree in nursing science and very few 4 (2%) of the participants had a master's degree. About half of the respondents 104 (52.2%) had 0-5 years of working experience, the remaining half 20 (10.1%) had 6-10 years, 21 (10.6%) 11-15 years, 35 (17.7%) 20-30 years and only 18 (9.1%) had 30-35 years of working experience respectively.

### Symptoms of Breast Cancer

Majority of the respondents 184 (94.8%) knew that lump in the breast is a symptom of breast cancer, many of them 166 (85.1%) knew that discharge from the breast is also a symptom of breast cancer. Only 33 (17.3%) of the respondents had knowledge that pain or soreness in the breast is not a symptom of breast cancer. 165 (85.1%) of the respondents knew that changes in the size of the breast is a symptom of breast cancer.

### Risk Factors of Breast Cancer

At least more than half of the respondents 124(66.7%) knew about increasing age as a risk factor for developing breast cancer. Majority of the respondents 167(86.5%) had knowledge about positive family history of breast cancer as a risk factor, More than half of the respondents 94(52.8%) did not know that high fat diet is a risk factor. Two third of the

respondents 134(70.9%) knew that smoking is a risk factor. More than half 110(61.8%) of the respondents did not know that having a first child at late age is a risk factor, so also 106 (59.2%) of them had no knowledge about early onset of menarche is a risk factor. Many of the respondents 103(56.3%) did not know that late menopause is a risk factor of breast cancer.

**Table 1: Risk factors of breast cancer**

Statements	YES		NO	
	N	%	N	%
Increasing age	124	66.7	62	33.3
Positive family history	167	86.5	26	13.5
High fat diet	84	47.2	94	52.8
Smoking	134	70.9	55	29.1
Larger breast	49	27.4	130	72.6
First child at late age	68	38.2	110	61.8
Early onset of menarche	73	40.8	106	59.2
Late menopause	80	43.7	103	56.3

### Knowledge of Breast Cancer Screening Methods and Early Detection Methods

Majority of the respondents 178(90.4%) knew how to perform breast self-examination but only 146(74.5%) knew the starting age of breast self-examination and many of the respondents

139(70.9%) knew that BSE is performed monthly. Only 4 (2.0%) of the respondents knew the recommended age to start CBE. Only few 27 (13.8%) of the respondents knew the recommended age for mammography examination to start.

**Table 2: Knowledge of breast cancer screening methods and early detection methods**

Variables		N	%
Do you know how to perform self-breast examination (SBE)	Yes	178	90.4
	No	19	9.6
Do you know at what age self-breast examination should be started?	YES	146	74.5
	NO	48	24.5
Do you know how often SBE should be done?	Daily	23	11.7
	Weekly	6	3.1
	Monthly	139	70.9
	Don't know	28	14.3
Do you know how often CBE should be done until a woman reach 40 Years?	Once in a year	87	44.4
	Once in two year	15	7.7
	Once in three years	4	2.0
	don't know	90	45.9
Do you know recommended age for mammography examination to start?	At the age of 30	71	36.2
	At 35	28	14.3
	At 40	27	13.8
	At 45	5	2.6
	Don't know	65	33.2
If you develop breast cancer what will be your attitude?	Consult a doctor	178	91.3
	Go to prayer house	4	2.1
	Agree to perform Mastectomy	13	6.7

**Practice of Breast Cancer Examination and Factors that influences the Practice**

Many of the respondents 157(80.1%) do practice BSE. Only two third of the respondents 113(71.5%) practice BSE once in a month and only a few 6(3.8%) practice it once in 3 months. More than half of the respondents not

practicing BSE said it is because they don't have breast problem ,a few of them 11(19.0%) did not know how to do it, very few 8(13.8%) said it is because they are not comfortable doing it. Two third of the respondents 143(74.5%) have never done CBE. Half of those that have done it 30(52.6%) had it once. Only

13(6.8%) had mammography. About half of the respondents were very reluctant to participate in mammography screening because they have no any sign and symptoms of breast cancer. Few of them 29(17.1%) said no one recommended it, 27(15.9%) were fear of the outcome, 16(9.4%) were not of the age to perform, 3(1.8%) were concerned about extra time and only 5 (2.9%) were concerned about extra money.

## DISCUSSION

Findings from the current study revealed that about two third of the nurses (75.2%) had a good knowledge regarding the overall warning signs of breast cancer and (51.3%) had good knowledge of breast cancer risk factors. Their knowledge of breast cancer was higher than a study conducted in federal teaching hospital ,ido-ekiti ,Nigeria which reported 64.7% [12], also higher than a study conducted in Ibadan among primary health care nurses with 60.9% [13]. Despite some degree of good knowledge of breast cancer and breast cancer risk factors shown by the participants, only 33(17.3%) of them had knowledge that pain or soreness in the breast is not a sign of breast cancer. This shows a very low knowledge as compared to a study among female nurses

and lay women in Oshogbo, Nigeria where 89.2% of the female nurses knew that soreness in the breast is not a symptom [14]. Majority of the respondents knew that positive family history of breast cancer is a risk factor, this finding is similar to the results of previous studies [15]. About 70.9% of the respondents recognized smoking as a risk factor for breast cancer, this can be compared with a study in Oshogbo, Nigeria where 69% of their respondents had knowledge about it [14].

Nearly all of the respondents (90.4%) knew how to perform breast self-examination and more than half of them (80.1%) do practice it. However, only 113(71.5%) do practice it on a monthly basis. This study shows an increased level of practice as compared to a recent study conducted on female health care professionals in tertiary health care institute in Ido-ekiti, Nigeria where only 63.4% of them practice it monthly [16]. It is also higher than the 54% observed among female health workers in northern Nigeria [17]. This shows a good knowledge of the screening tool in the current study but inadequate early detection measures as only half them started practicing it at the recommended time.

Knowledge and practice of clinical breast examination was very poor among the female nurses observed. Only 4(2.0%) knew the frequency of CBE until a woman reach 40 years. Only 48(25%) of them had CBE. Findings from the current study show an overall poor patronage in the practice of CBE. This shows a similar result as compared to a study in Nigeria among female health care professionals in a tertiary health institution where only 26.4% of the participants have undergone CBE [16]. Findings from another study in the same city of the current study but different subjects where it was conducted in University of Maiduguri teaching hospital on female health workers showed a slightly increased in practice of CBE as (35.5%) of them ever had it [18]. This may perhaps be because of their higher academic qualifications and the included doctors, pharmacist, physiotherapist, radiographers and medical lab scientist in the study.

There was a very poor knowledge regarding the recommended age for mammography as only 13.8% of the participants knew it is started at the age of 40. On the practice of mammography, only 6.8% of them had mammography.

This can be related to a study conducted in Sokoto, Nigeria, among female health workers where only 9% of had actually done mammogram [17]. In many research conducted worldwide, there is low level of practice of mammography. In this current study, low level of practice demonstrated may be because of lack of its knowledge demonstrated by the participants and also lack of screening centres may be a contributing factor as only a single functional mammography centre is available in the city of the study.

Most of the participants were not practicing because they have no breast problem, this reason account for 60.3% of the participants. About 13.8% of them said uncomfortability is what is making them not to perform SBE. This result shows a higher screening practice as compared to a study where 22% of them were not practicing SBE because it embarrasses them [19]. Embarrassment and uncomfortability shouldn't be a barrier to deter someone from checking their health status as early detection means a longer chance of survival from the attack by cancer. Only 19% of the participants said not having the knowledge is what is making

them not to practice it and 6.9% don't have time to do it.

Regarding clinical breast examination, majority of the participants (86%) were not practicing CBE because they have no sign/symptoms of breast cancer, followed by 13.1 % which fear of the outcome made them reluctant to perform, 5.1% were concerned about extra time and 2.9% were concerned about extra money.

Fear of the disease, lack of recommendation and no sign/symptoms of breast cancer constituted the highest reasons of not undergoing a mammogram accounting for 15.9%, 17.1% and 52.9% respectively. This result shows a great improvement as compared to a study by Bello et al., (2011) to access the knowledge and practice of breast cancer among nurses and lay women, where 69.6% of their nurses gave reason that fear of breast cancer is what is making them not to undergo mammography.

### CONCLUSION

Knowledge of breast cancer among the female nurses was satisfactory however; the knowledge of the screening methods and practice was very poor especially the knowledge

and practice of clinical breast examination and mammography.

### RECOMMENDATION

Based on the findings from this study the under listed recommendations will be useful.

1. A policy regarding breast cancer screening should be developed by the government.
2. Seminars should be organized on breast cancer screening so as to increase the knowledge regarding different screening methods for breast cancer.
3. Emphasis should be made to encourage the practice of clinical breast examination and mammography.

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