



**SURVEY ON THE AWARENESS OF RISK FACTORS ASSOCIATED WITH BREAST
CANCER AMONG WOMEN ATTENDING ANTE-NATAL CLINIC AT IMO STATE
UNIVERSITY TEACHING HOSPITAL (IMSUTH), ORLU**

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ABSTRACT

This study was conducted to determine the awareness of risk factors associated with breast cancer, its protective and screening measures among pregnant women attending ante-natal clinic at Imo State University Teaching Hospital (IMSUTH) Orlu, Imo State of Nigeria. Extensive literature review was made. A descriptive analysis was adopted for the study and a convenient sampling method used to obtain 180 respondents as the sample size with aid of self-structured questionnaire developed by the researcher for the purpose of data collection. The questions were derived from objective set for the study. Finding from the data collected shown that most (75%) of the participants had no knowledge of modifiable risk factors to breast cancer, (36.5%) had good knowledge of non-modifiable risk factors. Disparity of knowledge in variables of protective and screening measures showed that few subjects had good knowledge (20.2%) of protective measures and majority of them had no knowledge about protective measures. On screening measures, various disparities in knowledge also revealed their low awareness of these variables. Financial constrained and time were the primary limitations the researcher encountered. In view of the above findings, it was therefore recommended that, there should be more awareness of these variables not only to our pregnant women but also the society about the drivers of breast cancer and its protective measures, would go a long way to save our society women.

KEYWORDS: Awareness, risk factors, breast cancer, women attending ante-natal clinic.

INTRODUCTION

Breast cancer is considered the second most common cancer in women worldwide, with its uncertain cause, has captured the attention of surgeons throughout the ages. Breast cancer attains significance major determinant of both morbidity and mortality in the affected female population. It is recognized as a major public health problem in various countries. In Nigeria, the incidence of this malignancy is ever on the rise, due to urbanization and subsequent change in lifestyle. Nearly all women are at risk for breast cancer, with the risk increasing with age (Anthony *et al.*, 2018).

The recent estimate of breast cancer in Nigeria is about 500,000 new cases annually and more than 40% of women are affected, high prevalence at the peak age or 43 years and more than 12% are less than 30years of age. It is postulated that, in Nigeria 1 out of 8 of women with breast cancer are younger than 45 years and 2 out of 3 are 55 years or older (Anele *et al.*, 2014).

Imo State University Teaching Hospital (IMSUTH) Orlu cancer registry (2018), it was recorded that about 328 new cases of breast cancer were diagnosed between 2014 to 2016 and from 2016 to 2018, 98 new cases were diagnosed with about 10 deaths occurring within this period.

Globally, breast cancer is the most common cancer and the leading cause of cancer deaths among women. It is estimated that, for every 3 minutes one woman is diagnosed with breast cancer, with a total of one million cases per year. In 2012, the number of new cases diagnosed with breast cancer in women was 1.7 million with 883,000 cases reports in developed countries against 794,000 in developing countries. In developed countries, breast cancer is the second most common cancer after cervical cancer (Balekouzou *et al.*, 2017).

In 2010, about 206,966 Indiana, USA women were histologically diagnosed with breast cancer, 40,996 was said to have died from the malignancy, about 1 in 8 of

women was expected to develop invasive breast cancer over the course of their life time.

In 2013, another study conducted showed that 232,340 new cases of invasive breast cancer were expected to be diagnosed in Indiana, USA women along with 634,640 new cases of non-invasive (in-situ) breast cancer. About 39,620 were expected to die in 2013 from breast cancer. Death rates have been decreasing over a decade with large decrease in women under 50 years of age (Anele *et al.*, 2017).

According to Antony *et al.* (2018), Breast cancer cannot be fully prevented but it can be effectively managed and even cured if detected early. Therefore, a risk factor is defined as anything that increases one's probability of developing breast cancer. However, many of these risk factors are beyond individual's control, such as sex, age, race, exposure to radiation, family history of breast cancer, personal history of breast cancer, pregnancy and breastfeeding. On the other hand, weight, diet, physical activity, smoking, alcohol, exposure to estrogen, use of oral contraceptives, stress and anxiety are modifiable risk factors. But having one or more risk factors does not necessarily mean one will develop breast cancer or has developed breast cancer already.

Breast cancer study is an effort to create awareness and minimize the stigma of breast cancer through education on symptoms and treatment. Greater knowledge will lead to earlier detection of the malignancy with its associated preventive and screening measures. It has also been cited and validated in many studies that early detection of breast cancer will reduced mortality rate by 30% (Anele *et al.*, 2017).

According to Brown (2012), Breast screening is a way of finding breast cancer early when they are too small for you and your doctor to see or feel.

However, protective measures are those measures taken to prevent breast cancer. Regular exercise can offer some protection to women with breast cancer, which help them to tolerate the side effect of treatment and recover faster after surgery. Diet also plays a measurable role in prevention of breast cancer. It is also important to note that distance measures are not proven to overcome other risk factors for breast cancer. Women who strictly adhere to a healthy diet should still take other preventive measures such as having regular mammography screening. Mammography uses x-rays to capture pictures of the internal structures of the breast.

AIM

The aim of this study was to create awareness on the risk factors associated with breast cancer, protective and screening measure to breast cancer among pregnant women attending antenatal clinic in Imo State University Teaching Hospital Orlu.

MATERIALS AND METHODS

Study Design

This is a descriptive study designed to shed light on the awareness of risk factors, protective and screening measures on breast cancer among pregnant women attending antenatal clinic at Imo State University Teaching Hospital (IMSUTH), Orlu in Imo State, Nigeria.

Population of study

From the antenatal records, the total population of pregnant women attending antenatal clinic in IMSUTH was 450 from January 2017 to January 2018. The rule of Thumb method was used to determine the overall percentage of the sample size for clarity.

Sample size

A sample size of 180 pregnant women which represents 40% of the population was used for this study.

The inclusion criteria were used:

- Pregnant women attending clinic at IMSUTH.
- Pregnant women who are physically and emotionally fit.
- Clients who are willing to participate in the filling of the questionnaire.

Sampling Technique

Forty percent (40%) of the population 450 was calculated to be 180 target sample size for this study.

Instrument for Data collection

A self-structured questionnaire was constructed with closed ended questions were used for data collection. The question was sectioned into four (4); Section A, B, C and D.

Section A: Consists of socio-demographic data of the respondents with 5 items.

Section B: Comprises of awareness of risk factor for breast cancer with 15 items.

Section C: Awareness of protective measures, 5 items.

Section D: Awareness of screening measures, 4 items.

A total of (29) items in the questionnaire were constructed, with please tick (✓) or fill-in as appropriate and yes or no option.

Validity of Instrument

The face validity was carried out by ensuring that my supervisor saw the questionnaire. The contributions of my supervisor were effected by the researcher and it helped in the final refinement of the instrument.

Reliability of Instrument

A pilot study was conducted. Twenty (20) copies of the questionnaire were distributed to the pregnant women with the same inclusion criteria attending antenatal clinic at Nwaorieubi Health Centre. This was done outside the study area to avoid prior sensitization of the research

subjects. The results of pilot test and responses of the subject showed that the respondents understood and filled-in as appropriate.

Ethical consideration

Before the collection of data, the researcher informed the Chief Medical Director through a written letter and asks for permission to conduct the study in the hospital; oral permission from the Chief Medical Director to carry out the work was obtained. An introductory letter from the Head of Department Nursing Services was also sought to the ethical committee of the hospital and explanation of the purpose of the study was done. Oral permission from the nurse-in-charge of the antenatal clinic was also sought, oral consent was also gotten from the respondents before given out the questionnaire to them. The respondents were assured their privacy and confidentiality as their responses will only be used for the purpose of the research work.

Method of Data collection

The researchers visited the study area on antenatal days and asked for pregnant women that fulfilled the inclusion criteria. The questionnaire was given out personally to the subjects to answer after explaining the purpose of the research. Some of the subjects who are not academically inclined were helped on how to fill in the instrument by reading it in the language they will understand and fill in the responses accordingly while avoidance of bias were taken into consideration. This exercise was continued until total of 180 pregnant women were reached without given to the client twice.

The total number of 178 questionnaire were received which amount to 98.8% return rate. No research assistance used.

Method of Data Analysis

The scores (odd) obtained from the returned instrument were analyzed and summarized into simple descriptive statistics of frequency (f), percentage (%), table and Histogram.

RESULTS

1. Socio-demographic characteristics of the respondents

Age (yrs)	Frequency (f)	Percentage (%)
16-20	13	7.3
21-25	21	11.8
26-30	37	20.8
31-35	49	27.5
36-40	44	24.7
41-45	9	5.1
46-50	5	2.8
51-55	0	0
56-above	0	0
Total	178	99.9, 100 approximately

Table 1 shows the frequency and percentage of the age group respondents.

Table-1(a).

Marital status	Frequency (f)	Percentage (%)
Married	171	96.1
Single	2	1.1
Widowed	5	2.8
Separated	0	0
Other specify	0	0
Total	178	100

Table 4.1a shows the frequency and percentage of the marital status of the client.

Table-1(b).

Religion	Frequency (f)	Percentage (%)
Christian	176	98.9
Muslim	2	1.1
Tradition	0	0
Other specify	0	0
Total	178	100

Table 1b shows the frequency and percentage of the religion of the subjects participated.

Table-1(c).

Educational qualification	Frequency (f)	Percentage (%)
FSLC	6	3.4
WAEC/NECO	28	15.7
OND/HND	42	23.6
BSE & above	98	55.0
Others	4	2.3
Total	178	100

1c shows the frequency and percentage of educational background among the clients.

Table-1(d).

Occupation	Frequency (f)	Percentage (%)
Trader	54	30.3
Full time house wife	25	14.0
Civil servant	47	26.4
Farmer	22	12.4
Student	30	16.9
Others specify	0	0
Total	178	100

Table 1d shows the frequency and the percentage of the occupational status of the subjects.

From the above tables, the highest age group fall between age 31-35 years; followed by age 36-40 with the least group age 46-50. No information was recorded from age group 51 and above. Nearly all 171 (96.1%) subjects are married as shown in table 4.1b shown that

almost the clients are Christian with frequency of 176(98.9%) and least being Muslim 2(1.1%). No information was collected for other religion group.

BSC and above shows the highest frequency 98(55.0%) followed by OND & HND 42(23.6%) and the least being

others not specified with 4(2.3%) as shown in table 4.1c. Traders and civil servants scores the highest with 54(30.3%) and 47(26.4%) respectively with least occurrence of farmers and house wife 22(12.4%) and 25(14.0%) respectively as shown in table 1d.

Table 2: Subject's awareness of non-modifiable Risk factors.

S/n	Questions	Yes (F)	Yes (%)	No (f)	No (%)	Don't know (f)	Don't know (%)
7	Being a female	110	61.8	22	12.4	46	25.8
8	As age increases	118	66.3	41	23.0	19	10.7
9	Being a family member	81	45.5	69	38.8	28	15.7
10	Seen menses before 12 years	11	6.2	121	68.0	46	25.8
11	Late menstrual period at 55 years & above	5	2.8	119	66.8	54	30.3
			36.5%		41.8%		21.7%

N= 178 total percentage = 99.96%

Table 2 shows that 110(62%) of the subjects are aware that being a female is a risk factor whereas 68(38%) are not aware of this risk factor. 118(66%) are aware of increasing age as a risk factor for breast cancer while 60(34%) are not aware. 81(46%) are aware that being a

female member is one of the risk factor and 97(54%) are not aware. 11(6.2%) out of 178 are aware of early monarch as a risk factor while the rest 167(93.8%) are aware of late post menopausal as a risk factor for breast cancer whereas about 173(97%) are not aware.

Table 3: Respondents level of awareness of modifiable risk factors.

S/n	Questions	Responses					
		Yes (f)	Yes (%)	No (f)	No (%)	Don't know (f)	Don't know (%)
12	Obesity at menopause	37	20.8	48	27.0	93	52.2
13	Excess alcohol consumption	45	25.3	61	34.3	72	40.4
14	Early exposure to radiation therapy before 2 years	73	41.0	24	13.5	81	45.6
15.	Oral contraceptive (drugs that prevent women from pregnancy)	51	28.7	64	36.0	63	35.4
16	Repeated abortions	34	19.1	48	27.0	96	52.2
17	Female hormonal therapy	41	23.0	28	14.0	112	63.0
18	Given birth after 30 years	48	27.0	97	54.5	33	18.5
19	Eating too much fatty food	51	28.7	35	19.7	92	51.7
20	Not given birth at all	23	13.0	79	44.4	76	42.7
	Average Total		25.0%		30.0%		45.0%

N= 178, Total percentage = 100%

Table 3 shows that 37(20.8%) respondents are aware of obesity at menopause as risk factor for breast cancer whereas majority of subjects 141(79%) are not aware of this risk factor. 45(25.3%) have knowledge of excessive alcohol intake as risk factor while 133(74.7%) have no idea of this risk factor. 73(41.0%) are aware of early exposure to radiation therapy as a risk factor while 105(58.9%) are not aware. 51(28.7%) knows oral contraceptive drugs as a risk factor about 71.4% do not know about it. 34(19.1%) knows repeated abortion as a risk factor while about 79.2% do not know about it. 41(23.0%) are aware of female hormone therapy as risk factor while about 77.0% are not aware. 48(27.0%) are aware of given birth after 30 years as risk factor whereas 73% of the respondents are not aware.

51(28.7%) are aware of too much fatty food intake as risk factor while 71.3% are not aware. Very low awareness on not given birth at all is perceived as 23(13.0%) while majority about 87.0% are not aware of this risk factor for breast cancer.

Table-4.

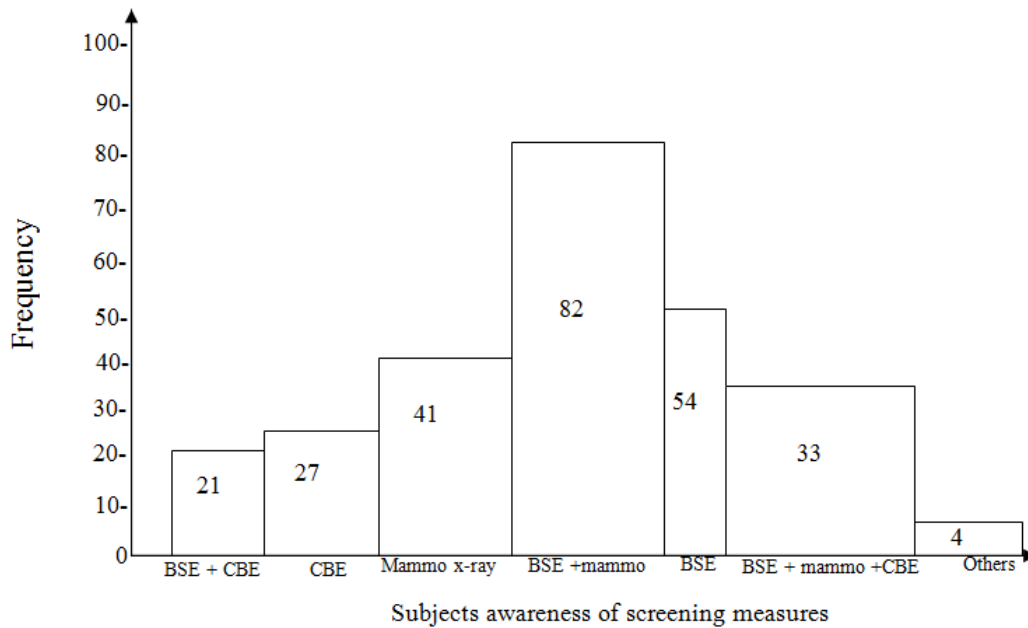
S/n	Questions	Yes (f)	Yes (%)	No (f)	No (%)
21	Being physically active	24	13.5	154	86.5
22	Healthy diet rich in natural fibre & vegetable	53	29.7	125	70.2
23	Breastfeeding at 18 months	41	23.0	137	77.0
24	Delivering many children	28	15.7	150	84.3
25	Engaging in exercise at least 3 times a week	34	19.1	144	81.0
	Average percentage		20.2%		79.8%

N=178, total percentage 100%

Table 4 shows that 24(13.5) claim to have knowledge of being physically active or working as protective measure to breast cancer while majority of the respondents 154(86.5%) are not aware. 53(29.7%) have idea of healthy diet rich with fibre and vegetable as one of the preventive measure while 125(70.2%) are not aware.

41(23.0%) are aware of exclusive breastfeeding as protective measure while 137(77.0%) are not aware of this preventive measure. 28(15.7%) claim to have

knowledge about delivering many children as one of the protective measure whereas 150(84.3%) do not. 34(19.1%) are aware that exercise at least three times a week is one of the preventive measure while majority 144(81.0%) are not aware. These findings is in accordance with research work conducted by Abasi, et al (2010) that non vegetarian diet, age at menarche more than 13 years, age at first child birth more than 30 years and induced abortion are prone to risk factor of breast cancer.



Histogram 1: This graphical representation of data shows the respondents awareness of the screening measures. The tallest graph shows that most subjects are aware of Breast self examination and mammography as screening measures 82(31.3%), followed by breast self examination (BSE) only 54(20.6%), followed by mammography alone (mammo) 41(15.6%), then breast self examination + mammogram + clinical breast examination 33(12.6%) and followed by clinical breast examination alone (CBE) 27(10.3%) and BSE + CBE 21(8.0%) and no idea 4(1.5%).

DISCUSSION

Most of the responses from the subjects revealed that average percentage ‘yes’ were 36.5%, ‘No’ percentage were 41.8% and ‘Don’t know’ percentage 21.7% which means that the total average percentage of those not aware of these non-modifiable risk factors were higher than those that were aware from the table 4.2 pregnant women have good knowledge of being a female, increasing age as risk factors of breast cancer and a poor knowledge of early menarche & late menopause of

breast cancer as risk factor and fair knowledge of being a family member. According to The findings of the study revealed that respondents have good knowledge on early exposure to radiation as risk factor may be because of fear in their perception about effect of radiation on human being and fair knowledge on eating too much fatty food, given birth late, oral contraceptive and alcohol as risk factors and poor knowledge on not given birth at all, repeated abortion, female hormonal therapy and obesity at menopause as risk factors for breast cancer

(Thelma, 2013). Though there is very slight adjustment of awareness looking at previous investigation or research work. There is need to lunch more education on these modifiable risk factors to breast cancer.

From the table 4, findings revealed that some pregnant women attending ante-natal clinic at IMSUTH has poor knowledge about being physically active (i.e. working to earn a living) can contribute to preventing risk factor of breast cancer, few population in this study have little idea about Healthy diet rich in natural fibre (fruit) and vegetable (29.7%), 23.0% breastfeeding at 18 months, 19.1% at least 3 times weekly exercise and 15.7% delivering many children while the overall findings revealed majority of the population are not aware of these protective measures of breast cancer.

This finding revealed the level of respondent's knowledge of screening measures. From the figure I, majority of the subjects had good knowledge of breast self examination together with mammogram, fair knowledge of breast self examination and mammography alone. Poor knowledge of combine breast self examination plus annual clinical breast examination and mammogram, clinical breast examination alone and breast self examination plus clinical breast examination. Others which were identified as magnetic Resonance Imaging, Ultrasound and biopsy, shows only four subjects awareness out of total population of 178 as screening measures of breast cancer. However, these screening measures are used when other common screening techniques can not pinpoint the advance stage of the breast cancer.

CONCLUSION

The study revealed that pregnant women in Orlu as it stands have poor knowledge of the risk factors of breast cancer, protective and various screening measures. Though there is very slight increase awareness among the participants as compared with precious study done by some researchers. The adjusted awareness may be due to level of education among the subjects, there is significant level of unaware of these risk factors to breast cancer.

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