

*Full Length Research Paper*

# Awareness of breast cancer and practice of breast self examination among pregnant women attending antenatal clinic in selected health centres, Benin City, Edo State

\*Ehwarieme T.A<sup>1</sup>, Amiegheme F.E<sup>2</sup>, Unigwe J.K<sup>3</sup> and Ugwueze J.O<sup>4</sup>

<sup>1</sup>Department of Nursing Science, School of Basic Medical Sciences, University of Benin, Benin City, Edo State.

<sup>2</sup>Department of Nursing Science, School of Basic Medical Sciences, University of Benin, Benin City, Edo State.

<sup>3</sup>Continue Education and research Unit, University of Nigeria Teaching Hospital, Utuku-Ozala, Enugu, Enugu State.

<sup>4</sup>Department of Nursing Science, School of Basic Medical Sciences, University of Benin, Benin City, Edo State.

Accepted 18 July, 2019

Worldwide, breast cancer is the second most frequent cancer and the fifth cause of cancer-related mortality. This study was conducted to assess the level of awareness of breast cancer and practice of breast self examination among pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo state. A descriptive cross sectional survey design was adopted. Pregnant women were recruited using convenient sampling technique. The research instrument used was questionnaires. Data were analysed using descriptive statistics. Result shows that 133 (61.3%) had good awareness and 84 (38.7%) had poor awareness of breast cancer. 101 (46.5%) exhibited poor awareness of breast self-examination, while only 56 (25.8%) had good awareness of breast self-examination. 183 (84.3%) exhibited poor practice of breast self-examination. Perceived hindrance to practice of breast self-examination were lack of time ( $3.20 \pm 1.115$ ), Negligence ( $3.12 \pm 1.025$ ), lack of breast cancer symptom ( $3.28 \pm 0.966$ ) and fear of the unknown ( $3.22 \pm 0.956$ ). A statistically significant relationship ( $p < 0.001$ ) between awareness of breast cancer and awareness of breast self-examination was found. Marital status of the respondents showed a statistically significant relationship ( $p < 0.000$ , OR = -0.230, CI 95% = -0.343 – -0.117) and education of the respondents showed a statistically significant association ( $p < 0.000$ , OR = 0.135, CI 95% = 0.064 – 0.205). Regular health education for pregnant women especially during their antenatal clinic should be intensified to increase the practice of breast self examination.

**Key words:** Breast cancer, awareness, practice, self examination, hindrance.

## INTRODUCTION

Worldwide, breast cancer is the second most frequent cancer and the fifth cause of cancer-related mortality (Ferlay et al., 2013). It is the most common cancer to affect women and it is second only to lung cancer as the principal cause of cancer-related deaths among women (Ferlay, et al.,

2013; WHO, 2013; Ferlay et al., 2015). In low- and middle-income countries (LMICs), it remains a significant public health challenge as incidence rates have been shown to increase yearly by as much as 5% with over 1 million projected new cases annually by 2020 (WHO, 2013, Ferlay et al., 2015). The emergence of breast disease and subsequent development of cancer appears to be more aggressive in young women compared to its progression in older women (Ameer et al., 2014).

\*Corresponding author E-mail: [timy4real12@gmail.com](mailto:timy4real12@gmail.com)  
08060696870

Although mammography remains the best diagnostic tool in the detection of breast cancer, it is not routinely performed in Nigeria because of cost, high technology equipment and expertise required. (Anyanwu, 2015; Banjo, 2014; Okobia and Osime, 2014; Wu & Tu, 2013). Breast self-examination therefore remains one of the risk-free and painless procedure conducted with the objectives of identifying breast related disorders and cancerous condition. A number of women perform this examination themselves as a screen test for breast cancer. Breast and region around it for lumps, distortions and swellings that might be an indication of breast related disorder or even breast cancer (Haruna, Chukwu, Ahmadu, Teryila, Babaji, *et al.*, 2017). Breast self-examination (BSE) still remains one of best suited and available tool for early detection of breast cancer. Different studies showed that women who practice BSE monthly with correct method are able to find a lump in its early stage and this early diagnosis has been found to have a positive influence on management to have a better survival rate (Petro-Nustas & Mikhail, 2014). Nevertheless the level of awareness and practice is still a concern especially in the rural areas.

Adegbenro *et al.*, (2014) in Osun State, South-West Nigeria reported that awareness of breast cancer is very high (87.8%) among 420 respondents. Radi (2013), in Jeddah , shows that out of 200 participants, 50.5% were aware of breast lump as a warning sign of breast cancer. Kumar and Kashyap (2016), in Rajendra, Ranchi findings shows that 123 (75.9%) had heard about breast cancer. Ajayi & Faleti (2017), in Ido community, Ido-Ekiti, Ekiti State, Nigeria. It was revealed that majority (60%) of the market women claimed to be aware of breast cancer. In the same vein awareness of BSE appears to be high in some areas. Makanjuola *et al.*, (2013) in rural community of Ondo state, Nigeria, a greater proportion of respondents (60%) was reported to have poor knowledge of BSE. According to Adegbenro *et al.*, (2014) among rural women in Osun State, South-West Nigeria, reported that out of the 420 respondents, result showed that less than half (47.0%) of the respondents claimed to be aware of BSE. Moreover, a research study conducted by Tobin and Okeowo (2014) in South-South, Nigeria shows that all respondents (100.0%) had heard of breast self examination. Though the awareness of self BSE is high in some area, this does not really translate into practice as Sideeq, Ayoub & Khan (2017), among ethnic Kashmiri females reported that of the 250 women that participated, only 5.6% participants had self-examined their breast. Natae (2017) reported in his study that the practice of BSE was low; 63(20.7%) of respondent were ever practiced, while 28(44.4%) were practiced monthly. More also, Akhtari-Zavare *et al.*, (2015) in Malaysia reported that 70.5 % of the respondents do not practice breast self-examination.

## **Statement of problem**

Breast cancer is one of the commonest cancers in both the developed and developing world. Carcinoma of the breast is the second principal cause of cancer deaths among women in the world as well as Nigeria (Adebamowo and Ajayi, 2013; Parkin, *et al.*, 2013). The actual burden of breast cancer in Nigeria is unknown due to lack of adequate cancer statistics. However, the prevalence rate of breast cancer in Nigeria was 116 per 100,000 and 27,840 cases occurred in 2014 (Ferlay, Shin, Bray, Forman, Mathers and Parkin, 2017). Nigerian women usually present with advanced stages of the disease when little or no benefit can be derived from the therapy.

Despite the elaborate campaigns about breast cancer on different media platforms and institutions, there is still high prevalence rate of breast cancer in the country. The questions is could this high prevalence be attributed to poor awareness of breast cancer? Or the level of practice of breast self examination is low among women? This study is therefore conducted to ascertain the level of awareness of breast cancer and the practice of breast self examination among pregnant women attending some health centres in Benin City.

## **Objectives of the Study**

- 1 To assess the level of awareness of breast cancer among pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo state.
- 2 To assess the level of awareness of breast self examination among pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo state.
- 3 To determine the level of practice of Breast Self Examination among pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo state.
- 4 To ascertain the hindrances to practice of Breast Self Examination among pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo state.

## **Significance of the study**

The study is significant because it will help reveal how knowledgeable these women are on breast cancer and as well as their level of breast self examination which is one of the cheapest and self directed method of diagnosing breast cancer. The result will be a pointer or pivotal to health practitioners especially nurses in theses local governments' areas to further plan on strategies to prevent the occurrence of breast cancer and foster primi-

tive health practices in these areas.

## **MATERIALS AND METHOD**

### **Research Design**

The study adopted the descriptive survey research design in purposively selected primary health centre; Ugbekun and Oredo Primary Health Care Centres in Oredo and Ikpba Okha local Government area of Edo state; the target populations are pregnant women attending antenatal clinic in the selected health centres. A sample size of two hundred and seventeen (217) was used for the study. This was obtained from the average antenatal attendance of 357 over six months, using Taro Yamane formula. There after the sample size were distributed to each of the primary health centre using proportionate sampling.

### **Sampling Technique**

Convenience sampling (also known as availability sampling) was adopted.

### **Instrument for Data Collection**

A self-structured questionnaires was used, it comprises of close ended questions and four sections. Section A contains the demographic characteristics; while section B contains items on awareness of breast cancer, Section C contains items on practice of Breast Self-Examination, while section D contains items on factors hindering the practice of breast self-examination using 4- point likert scale.

### **Validity**

Validity of the instrument was ensured in relation to the objectives by two experts in measurement and evaluation from university of Benin.

### **Reliability**

Split half reliability test was used after administering 20 questionnaires and Cronbachs Alpha value of 0.789, 0.803, 0.811 and 0.834 for Sections B, C, D and E respectively.

### **Method of Data Collection**

Questionnaires were administered with the help of the two research assistants who are nurses working in the selected health centre. This was done every day between 8am to 2pm for a period of 4 weeks. Consent of the respondents was duly sorted for before administering the questionnaires which was taken immediately after filling.

### **Method of Data Analysis**

Descriptive and inferential statistics was adopted in the analysis.

### **Ethical Consideration**

Ethical approval with no **HM.1208/130** was obtained from the ministry of health ethical and research committee after submitting the proposal. Letter of permission was also obtained from two local government areas.

## **RESULT**

The demographic variables of the respondents (age, religion, marital status, level of education, ethnic group, and occupation) are shown in table 1 above. 116 (53.5%) respondents were recruited from Ugbekun community health facility, while 101 (46.5%) respondents were recruited from Oredo health facility. Majority 79 (36.4%) of the respondents are 24 – 29 yrs, below 18 yrs had the least number of respondents 8 (3.7%). 154 (71.0%) of the respondents are married. Secondary level of education were majority 103 (47.5%), 83 (38.2%) had tertiary level of education. 63 (29.0%) were unemployed 56 (25.8%) do business, 43 (19.8%) are civil servants. Majority 82 (37.8%) of the respondents do not receive income as they were either unemployed or students, 47 (21.7%) of the respondents receive N11, 000 – N20, 000, while 12 (5.5%) receive N41,000 – N50,000 as income. Christianity dominated 208 (95.9%) the religion of the respondents and 84 (38.7%) of the respondents were Benins, 66 (30.4%) were Igbos, 42 (19.4%) were Yorubas and 7 (3.2%) were Hausas.

Table 2 shows the awareness of breast cancer among pregnant women attending some health centres in Benin City. When asked if they have heard of breast cancer, majority 180 (82.9%) had heard of breast cancer, while 37 (17.1%) had not heard about breast cancer. Concerning level of awareness of breast cancer amongst the selected health centres, Ugbekun health centre, 70 (60.3%) had good awareness level of breast cancer, while 46 (39.7%) had poor awareness level of breast cancer. The respondents from Oredo health centre had 63 (62.4%) respondents with good awareness and 38 (45.5%) with poor awareness. The general awareness level of the respondents shows that 133 (61.3%) had good awareness and 84 (38.7%) had poor awareness level. In conclusion, we can say the respondents of the study had good awareness (61.3%) of breast cancer.

Table 3 shows that of the 116 respondents from Ugbekun community health centre, majority 52 (44.8%) had poor awareness level of breast self-examination, while 35 (30.2%) had fair awareness level of breast self-examination and only 29 (25.0%) had good awareness level of breast self-examination in the community. The respondents from

**Table 1.** Socio-demographic characteristics of respondents.

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Hospital</b>		
Ugbekun	116	53.5
Oredo	101	46.5
<b>Age</b>		
Below 18 yrs	8	3.7
18-23yrs	49	22.6
24-29yrs	79	36.4
30-35yrs	63	29.0
>35	18	8.3
<b>Marital Status</b>		
Married	154	71.0
Single	51	23.5
Widowed	10	4.6
Divorced	2	.9
<b>Level of Education</b>		
No formal education	11	5.1
Primary	20	9.2
Secondary	103	47.5
Tertiary	83	38.2
<b>Occupation</b>		
Civil servant	43	19.8
Business	56	25.8
Student	24	11.1
Artisan	31	14.3
Unemployed	63	29.0
<b>Income</b>		
None	82	37.8
<N10,000	13	6.0
N11,000-N20,0000	47	21.7
N21,000-N30,000	28	12.9
N31,000-N40,000	18	8.3
N41,000-N50,000	12	5.5
>N50,000	17	7.8
<b>Number of Children</b>		
Nil	48	22.1
1	44	20.3
2	42	19.4
3	20	9.2
4	28	12.9
5	15	6.9
6	11	5.1
Others	9	4.2
<b>Religion</b>		
Christianity	208	95.9
Islam	9	4.1
<b>Ethnicity</b>		
Yoruba	42	19.4
Igbo	66	30.4
Hausa	7	3.2
Benin	84	38.7
Others	18	8.3

Oredo health centre also follow a similar pattern of Ugbekun community with majority, 49 (48.5%) of the respondents had poor awareness level of breast self-

examination, 25 (24.8%) had fair awareness level of breast self-examination, while 27 (26.7%) had good awareness level of breast self-examination in the community.

**Table 1.** Awareness of Breast Cancer.

Variable	Frequency	Percent	
<b>Have you heard of breast cancer</b>			
Yes	180	82.9	
No	37	17.1	
<b>Are you aware that breast cancer can be prevented</b>			
Yes	136	62.7	
No	81	37.3	
<b>Are you aware that there is a specific age that one becomes at risk of breast cancer</b>			
Yes	37	17.1	
No	180	82.9	
<b>level of awareness in selected PHC</b>			
<b>Variables</b>	<b>Percentage Score</b>	<b>Frequency</b>	<b>Percent</b>
<b>Ugbekun</b>			
Good Awareness	≥50%	70	60.3
Poor Awareness	<50%	46	39.7
<b>Oredo</b>			
Good Awareness	≥50%	63	62.4
Poor Awareness	<50%	38	45.5
<b>General level of Awareness</b>			
Good Awareness	≥50%	133	61.3
Poor Awareness	<50%	84	38.7

**Table 3.** Level of awareness of breast self examination among pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo State.

Variables	Percentage Score	Frequency	Percent
<b>Ugbekun</b>			
Poor Awareness	0 – 35%	52	44.8
Fair Awareness	36% - 74%	35	30.2
Good Awareness	75%-100%	29	25.0
<b>Oredo</b>			
Poor Awareness	0 – 35%	49	48.5
Fair Awareness	36% - 74%	25	24.8
Good Awareness	75%-100%	27	26.7
<b>General Awareness</b>			
Poor Awareness	0 – 35%	101	46.5
Fair Awareness	36% - 74%	60	27.6
Good Awareness	75%-100%	56	25.8

The general level of awareness of breast self-examination revealed majority of the respondents, 101 (46.5%) exhibited poor awareness of breast self-examination, 60 (27.6%) had fair awareness of breast self-examination, while 56 (25.8%) had good awareness of breast self-examination. This shows that the awareness level of breast self-examination is very poor. Table 4, shows 95 (43.8%) said they practice BSE, while 122 (56.2%) said they do not practice BSE. Of the 95 respondents that practice BSE, 38 (40.0%) said they practice it weekly, 32 (33.7%) said they practice BSE monthly, 21 (22.1%) said they rarely practice it and 4 (4.2%) said they practice BSE daily. Those that do not practice breast self-examination, 53 (61.6%) said they don't know how to perform BSE, 10 (11.6%) said they cannot do it. Majority of the respondents 116 (88.5%)

claimed not to have noticed any abnormality, while 15 (11.5%) said they had noticed abnormality when performing breast self-examination. With regards to level of practice of breast self-examination amongst pregnant women attending antenatal clinic in some selected health centres, Ugbekun health centre, 94 (80.0%) had good practice of breast self-examination, while 22 (20.0%) exhibited poor practice of breast self-examination. Oredo health centre respondents had 89 (88.1%) respondents with good practice and 12 (11.9%) with poor practice of breast self-examination. The general practice level of breast self-examination shows that 183 (84.3%) exhibited poor practice of breast self-examination and 34 (15.7%) showed good practice level of breast self-examination. It is safe to conclude that the practice level of breast self-

**Table 4.** Practice of Breast Self Examination.

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>	
<b>Do you practice BSE</b>			
Yes	95	43.8	
No	122	56.2	
<b>If answer to the question above is yes, how often</b>			
Daily	4	4.2	
Weekly	38	40.0	
Monthly	32	33.7	
Rarely	21	22.1	
<b>If answer to the question above is no, why not</b>			
Busy	8	9.3	
Don't know how to	53	61.6	
Fear	2	2.3	
Feels uncomfortable	2	2.3	
I cannot do it	10	11.6	
Lack skills	4	4.7	
Lack knowledge	3	3.5	
No time	1	1.2	
Unaware	3	3.5	
<b>If you have been practicing BSE, have you ever discovered any abnormality in your breast</b>			
Yes	15	11.5	
No	116	88.5	
<b>If answer to the above is yes, what did you do</b>			
Pray over it	2	13.3	
Do some lab tests	1	6.7	
See a doctor	7	46.7	
Do nothing	3	20.0	
Others	2	13.3	
<b>Do you think BSE is a good practice</b>			
Yes	194	89.4	
No	23	10.6	
<b>Level of practice of BSE</b>			
<b>Variables</b>	<b>Percent Score</b>	<b>Frequency</b>	<b>Percent</b>
<b>Ugbekun</b>			
Poor Practice	≥50%	94	80.0
Good Practice	<50%	22	20.0
<b>Oredo</b>			
Poor Practice	≥50%	89	88.1
Good Practice	<50%	12	11.9
<b>General level of practice of BSE</b>			
Poor Practice	≥50%	183	84.3
Good Practice	<50%	34	15.7

examination is poor.

Table 5. Shows the perceived hindrance to practice of breast self-examination. Majority 129 lack of time (3.20±1.115), Negligence (3.12±1.025), lack of breast cancer symptom(3.28±0.966), fear of the unknown (3.22±0.956), unawareness of the potential for personal examination(3.31±0.898), Undesirable experience of friends/acquaintances with its performance(2.63±1.098),

shame and humiliation of its performance (2.61±1.150) were seen as potential hindrance to the practice of breast self-examination. However, Belief in inefficiency of breast self-examination for cancer diagnosis (2.47±1.143) is not seen as an hindrance to the practice of breast self-examination.

Table 6, A statistically significant relationship (p=0.000) between awareness of breast cancer and awareness of

**Table 5.** Hindrances to practice of breast self examination among pregnant women attending antenatal clinic in some selected health centers in Benin City, Edo State.

Variable	Health Centre		Total	Mean±SD	Remark
	Ugbekun	Oredo			
<b>Lack of time</b>					
Strongly Disagree	17 (54.8)	14 (45.2)	31	3.20±1.12	Hindrance
Disagree	17 (70.8)	7 (29.2)	24		
Agree	14 (42.4)	19 (57.6)	33		
Strongly Agree	68 (52.7)	61 (47.3)	129		
<b>Negligence</b>					
Strongly Disagree	15 (60.0)	10 (40.0)	25	3.12 ±1.03	Hindrance
Disagree	16 (59.3)	11 (40.7)	27		
Agree	30 (48.4)	32 (51.6)	62		
Strongly Agree	55 (53.4)	48 (46.6)	103		
<b>Lack of breast cancer symptoms and lack of necessity</b>					
Strongly Disagree	13 (86.7)	2 (13.3)	15	3.28±0.97	Hindrance
Disagree	19 (55.9)	15 (44.1)	34		
Agree	21 (47.7)	23 (52.3)	44		
Strongly Agree	63 (50.8)	61 (49.2)	124		
<b>Fear of operation, radiotherapy and pain</b>					
Strongly Disagree	15 (75.0)	5 (25.0)	20	3.22±0.96	Hindrance
Disagree	14 (70.0)	6 (30.0)	20		
Agree	32 (46.4)	37 (53.6)	69		
Strongly Agree	55 (50.9)	53 (49.1)	108		
<b>Unawareness of the potential for personal examination</b>					
Strongly Disagree	12 (80.0)	3 (20.0)	15	3.31±0.90	Hindrance
Disagree	7 (36.8)	12 (63.2)	19		
Agree	35 (52.2)	32 (47.8)	67		
Strongly Agree	62 (53.4)	54 (46.6)	116		
<b>Lack of BSE performed by friends and acquaintances</b>					
Strongly Disagree	19 (67.9)	9 (32.1)	28	3.06±1.06	Hindrance
Disagree	17 (53.1)	15 (46.9)	32		
Agree	19 (33.9)	37 (66.1)	56		
Strongly Agree	61 (60.4)	40 (39.6)	101		
<b>Undesirable experience of friends/acquaintances with its performance</b>					
Strongly Disagree	20 (50.0)	20 (50.0)	40	2.63±1.10	Hindrance
Disagree	32 (49.2)	33 (50.8)	65		
Agree	29 (61.7)	18 (38.3)	47		
Strongly Agree	35 (53.8)	30 (46.2)	65		
<b>Shame and humiliation of its performance</b>					
Strongly Disagree	23 (48.9)	24 (51.1)	47	2.61±1.15	Hindrance
Disagree	36 (60.0)	24 (40.0)	60		
Agree	20 (50.0)	20 (50.0)	40		
Strongly Agree	37 (52.9)	33 (47.1)	70		
<b>Belief in inefficiency of BSE for cancer diagnosis</b>					
Strongly Disagree	29 (50.0)	29 (50.0)	58	2.47±1.14	Not an Hindrance
Disagree	30 (53.6)	26 (46.4)	56		
Agree	25 (53.2)	22 (46.8)	47		
Strongly Agree	32 (57.1)	24 (42.9)	56		

breast self-examination. This shows a statistically significant relationship ( $p=0.000$ ) between awareness of breast self-examination and the practice of breast self-examination amongst pregnant women attending antenatal clinic in some selected health centres in Benin City, Edo State.

The table 7 shows test of differences among the variables in the study. It shows that there is no statistical significant difference ( $p=0.154$ ) in the practice of breast self-examination amongst the respondents in some selected health centres. Statistical significant difference was not found ( $p=0.761$ ) in the level of awareness of

breast cancer amongst the respondents in some selected health centres Also no statistical significant difference ( $p=0.863$ ) was found in the level of awareness of breast self-examination amongst the respondents in some selected health centres in Benin City, Edo State

Table 8 shows the relationship between the awareness of breast cancer and the socio-demographic characteristics of respondents. The marital status of the respondents had showed a statistically significant relationship ( $p=0.000$ , OR = -0.230, CI 95% = -0.343 – -0.117) only as all other parameters (age, level of education, occupation, income, number of children, religion and ethnicity) did not

**Table 6.** Relationship between awareness of breast cancer and the awareness of breast self-examination.

Awareness of Self Examination	Awareness of Breast Cancer		Total	$\chi^2$ / pvalue	
	Good Awareness	Poor Awareness			
Poor Awareness	35 (34.7)	66 (65.3)	101	65.108 / 0.000	
Fair Awareness	43 (71.7)	17 (28.3)	60		
Good Awareness	55 (98.2)	1 (1.8)	56		
Practice of Self Examination	Awareness of Self Examination			Total	$\chi^2$ / pvalue
	Poor Awareness	Fair Awareness	Good Awareness		
Poor Practice	96 (52.5)	53 (29.0)	34 (18.6)	183	65.108 / 0.000
Good Practice	5 (14.7)	7 (20.0)	22 (64.7)	34	

**Table 7. Test of Difference among the variables in the study (T-Test).**

**Difference in practice of breast self-examination among the respondents in selected health centres**

**Group Statistics**

	Hospital	N	Mean	Std. Deviation	Std. Error Mean
Practice of Self examination	Ugbekun	116	1.80	0.815	0.076
	Oredo	101	1.78	0.844	0.084

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Practice of self examination	Equal variances assumed	8.563	0.004	1.432	215	0.154
	Equal variances not assumed			1.451	214.425	0.148

**Difference in the level of awareness of breast cancer amongst the respondents in the selected health centres**

**Group Statistics**

	Hospital	N	Mean	Std. Deviation	Std. Error Mean
Awareness	Ugbekun	116	1.40	0.491	0.046
	Oredo	101	1.38	0.487	0.048

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Practice of self examination	Equal variances assumed	0.375	0.541	0.305	215	0.761
	Equal variances not assumed			0.305	211.419	0.760

**Difference in the level of awareness of breast self-examination amongst the respondents in the selected health centres**

**Group Statistics**

	Hospital	N	Mean	Std. Deviation	Std. Error Mean
Practice of Self examination	Ugbekun	116	1.80	0.815	0.076
	Oredo	101	1.78	0.844	0.084

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Practice of self examination	Equal variances assumed	.634	.427	.173	215	0.863
	Equal variances not assumed			.173	208.718	0.863

show any statistically significant relationship with the awareness of breast cancer. The may be due to the fact

that nursing mothers/mothers had in a time been enlightened during attendance in antenatal clinic. Though



**Table 8.** Relationship between awareness of breast cancer and the socio-demographic characteristics.

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	2.295	0.356		6.443	0.000	1.593	2.997
Age	0.015	0.046	0.029	0.315	0.753	-0.076	0.106
Marital Status	-0.230	0.057	-0.283	-4.017	0.000	-0.343	-0.117
Level of Education	-0.034	0.050	-0.055	-0.695	0.488	-0.132	0.063
Occupation	-0.017	0.029	-0.052	-0.588	0.557	-0.073	0.039
Income	-0.016	0.023	-0.063	-0.693	0.489	-0.062	0.030
Number of Children	-0.029	0.025	-0.124	-1.166	0.245	-0.078	0.020
Religion	-0.291	0.175	-0.116	-1.664	0.098	-0.636	0.054
Ethnicity	0.006	0.025	0.016	0.234	0.815	-0.044	0.056

**Table 9.** Logistic regression analysis showing the association between the practice of self-breast examination and the socio-demographic characteristics.

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	2.295	0.356		6.443	0.000	1.593	2.997
Age	0.035	0.033	0.095	1.056	0.292	-0.031	0.101
Marital Status	0.031	0.043	0.052	0.718	0.474	-0.054	0.115
Level of Education	0.135	0.036	0.297	3.758	0.000	0.064	0.205
Occupation	0.021	0.021	0.090	1.034	0.302	-0.019	0.062
Income	-0.018	0.017	-0.095	-1.060	0.290	-0.051	0.015
Number of Children	0.016	0.018	0.092	0.868	0.386	-0.020	0.051
Religion	-0.003	0.127	-0.002	-0.023	0.981	-0.254	0.248
Ethnicity	-0.035	0.018	-0.128	-1.895	0.059	-0.071	0.001

a negative OR was observed for the relationship (-0.054), this portends that in the long run this relationship will be weakened.

Table 9 shows the association between the practice self-breast examination and the socio-demographic characteristics of respondents. The level of education of the respondents showed a statistically significant association ( $p=0.000$ , OR = 0.135, CI 95% = 0.064 – 0.205) only as all other parameters (age, marital status, occupation, income, number of children, religion and ethnicity) did not show any statistically significant association with the practice self-breast examination. This reveals that the higher the education of the respondent the better the practice of self-breast examination. In time to come, the level of education will play a vital role in the practice of self-breast examination in the locality.

## DISCUSSION OF FINDINGS

Findings from the study shows that the level of awareness of breast cancer is relatively high as 133

(61.3%) had good awareness. There was no statistically significant difference (0.761) in the level of awareness of breast cancer among the respondents from two health centre studied. The observation of a statistically significant relationship between the socio-demographic characteristics and the awareness of breast cancer only revealed a statistically significant relationship ( $p<0.001$ ) between the marital status of the respondents and awareness of breast cancer, while other characteristics did not. The study of Kumar and Kashyap (2016) in India supports the findings of this study. Another study that supports the index study is the study done by Ajayi & Faleti (2017) in Ido community, Ido-Ekiti, Ekiti State, Nigeria were majority (60%) of the market women claimed to be aware of breast cancer with medical personnel (51%) being the highest source of awareness. The study of Tilaki and Sahar Auladi (2015) also supports the findings of the index study. The findings from the study shows that majority exhibited poor awareness of breast self examination as only 56 (25.8%) had good awareness of breast self-examination. This shows that the awareness level of breast self-examination is very

poor among the respondents. A highly statistically significant relationship ( $p < 0.000$ ) was found between the awareness of breast cancer and the awareness of breast self-examination, with a non-statistically significant difference ( $p = 0.863$ ) observed in the level of awareness of breast self-examination amongst the respondents of the selected health centre.

The study of Birhane, Alemayehu, Anawte, Gebremariyam, Daniel et al., (2017) in Ethiopia. reported a higher level of awareness (64%) compare to the index study. Obaji, Elom, Agwu, Nwigwe, Ezeonu, & Umeora (2013) in their study among market women in Abakailiki, Southeast Nigeria also reported a higher level of 77.7% awareness rate, Nde, Assob, Kwenti, Njunda & Tainenbe (2015) in Ethiopia reported that nearly three quarter (73.5%) of the respondents are aware of BSE. The differences in these study could be attributed to the characteristic nature of the population as the study in Ethiopia were conducted among university students who are more enlighten and are expose to information as compare to the population of the index study who are women from rural community are predominantly petty traders. Abakailiki is a capital city of a state as compare to the rural health centre which this study was conducted, the urban nature of Abakailiki might influence the high rate of awareness reported in that study. However the level of awareness reported in this index study is higher than the 19.5% reported by Nimir, Al-Dubai, Alshagga & Saliem (2014) in Malaysia.

Findings from the study shows that practice of breast self-examination is very poor as only 34 (15.7%) showed good practice of breast self-examination. It is safe to conclude that the practice level of breast self-examination is very poor among the respondents in this study. A statistically significant relationship ( $p = 0.000$ ) was observed between the awareness of breast self-examination and the practice of breast self-examination. No statistically significant difference ( $p = 0.154$ ) was observed in the practice of breast self-examination among pregnant women in the selected health centres. Supporting this findings are Sideeq, Ayoub & Khan (2017) in Kashmiri, who reported that of 250 women that participated, only 5.6% participants had self-examined their breast; Kifle, Kidane, Gebregzabher, Teweldeberhan, Sielu, Kidane, Weldemenkerios & Tesfay (2016) in Eritrea, found that only 30.1% of the students had knowledge about breast self-examination and 11.7% practiced breast self examination (BSE) and Casmir, Anyalewechi, Onyeka, Agwu & Regina (2015) in Owerri, south eastern Nigeria who reported that only 32.5% of their respondents have performed this examination accurately and monthly as required. However the level of BSE practice 55% reported by Al-Dubai, Ganasegeran, Alabsi, Manaf, Ijaz & Kassim (2013) in Malaysia, is higher than that of the index study, also Sujindra and Elamurugan (2015) shows that, the level of practice of BSE in their study was 87.5%. same

reason can be attributed to this higher level of practice compare to this study as the study in Malaysia used undergraduate students who might have are exposed to information regarding breast cancer and its prevent and also as young girls who are not yet preoccupy with family responsibility the tendency is there for them to be committed to the practice compared t this pregnant women used in the index study.

The study shows that perceived hindrance to practice of breast self-examination were lack of time ( $3.20 \pm 1.115$ ), Negligence ( $3.12 \pm 1.025$ ), lack of breast cancer symptom ( $3.28 \pm 0.966$ ), fear of the unknown ( $3.22 \pm 0.956$ ), unawareness of the potential for personal examination ( $3.31 \pm 0.898$ ), Undesirable experience of friends/acquaintances with its performance ( $2.63 \pm 1.098$ ), shame and humiliation of its performance ( $2.61 \pm 1.150$ ). These reasons differs from that of Casmir, Anyalewechi, Onyeka, Agwu & Regina (2015) in Owerri, south eastern Nigeria who reported barrier to feeling shy performing breast self-examination, waste of time and lack of privacy to perform BSE. Alos differ is Natae (2017) who reported major reason of not practicing BSE to be lack of knowledge on how to perform BSE 67(27.6%) followed by respondents not having any breast problem 49(20.2%). Similarly. Aljohani, Saib & Noorelahi (2016) Taibah Medical Center shows lack of awareness about BSE is the most important barrier in not practicing BSE, while Akhtari-Zavare, Juni, Ismail, Said and Latiff (2015) in Malaysia show that the most common causes for not performing BSE were lack of knowledge, not knowing how to do it, not having any symptoms and lack of time” and not having enough privacy to do BSE. Lack of privacy reported by other studies can be attributed to the fact that those study were among students who may be leaving with their roommate and may be shy to perform such procedure even though their roommate are still females. With the index study such reasons were not giving as a barrier because they are pregnant women who are probably in their husband house therefore they have all the privacy they needed for such procedure. The level of education of the respondents was shown to be statistically significant association with practice of BSE ( $p = 0.000$ , OR = 0.135, CI 95% = 0.064 – 0.205). Marital status of the respondents was also shown to be statistically significant relationship with awareness of breast cancer ( $p = 0.000$ , OR = -0.230, CI 95% = -0.343 – -0.117). this shows that the more educated the respondent are the more they may practice BSE.

## CONCLUSION

Though the level of awareness of breast cancer and BSE is relatively high in this study it does not translate into practice of BSE as the practice was very low. Reasons giving for this lack of practice include lack of time, Negligence, lack of breast cancer symptom, fear of the unknown, unawareness of the potential for personal

examination, Undesirable experience of friends/acquaintances with its performance. These reasons given suggest that a lot of enlightenment campaign is still needed in these communities. It is the responsibility of nurse and other health care provider to therefore emphasized and encourage women to consistently practice breast self-examination as early detection is key to treatment.

## RECOMMENDATIONS

- Enlightenment campaign should be carried out in the health centre and the community in general to educate the females about the important of early detection of breast cancer and the role of breast self-examination plays.
- Health education should be carried out in the community to educate the women on dutiful practice of breast self-examination to promote early detection and reduce the burden of the disease in the locality.
- The women should be educated on what age breast self-examination should start, how often it should be done, the best time to perform it and how it is done and who should do it.
- The women should be encouraged to see a physician if any abnormality(ies) is detected. Posters and almanacs should be in strategic positions in the antenatal clinic outlining the proper way for carry out BSE, time, duration etc.

## REFERENCES

Adegbenro C, Ajala A, Ajayi O, Ajayi T, Ajayi O, Ajewole A, Oyedeji A. (2014). Awareness of Breast Cancer and Practice of Breast Self-Examination among Rural Women in Ife-North Local Government Area, Osun State, South-West Nigeria. *Journal of Community Medicine and Primary Health Care*, **26** (1): 76-87.

Adebamowo CA, Ajayi OO (2013) Breast cancer in Nigeria. *West African Journal Medicine*. **19**(1):179-194

Ajayi DM, Faleti DD (2017). Level of Awareness on Breast Cancer and Practice of Breast Self-Examination among Market Women in Ido Community, Ido-Ekiti, Ekiti State, Nigeria. *Journal of Cancer and Tumor International* **5**(2): 1-11.

Akhtari-Zavare M, Latiff LA, Juni, MH, Said S, Ismail IZ. (2015). Knowledge of female undergraduate students on breast cancer and breast self-examination in Klang Valley, Malaysia. *Asian Pacific Journal of Cancer Prevention*, **16**: 6231-6235.

Al-Dubai SA, Ganasegaran K, Alabsi AM, Abdul Manaf MR., Ijaz S, Kassim S (2013). Exploring of barriers to breast self-examination among urban women in Shah Alam, Malaysia: A cross sectional study. *Asian Pacific Journal of Cancer Prevention*, **13**: 1627-1632.

Aljohani S, Saib I, Noorelahi M (2016). Women's Performance of Breast Cancer Screening (Breast Self-

Examination, Clinical Breast Exam and Mammography). *Journal of Health Education Research & Development*, **4**:4 DOI: 10.4172/2380-5439.1000202.

Ameer K, Abdulie S, Pal S, Arebo K, Kassa G (2014). Breast cancer awareness and practice of breast self-examination among female medical students in Haramaya University, Harar, Ethiopia. *IJIMS*. **2**(2):109–119.

Anyanwu SN (2015). Breast cancer in eastern Nigeria: A ten year review. *West Afr J Med*. **19**:120–125.

Birhane N, Mamo A, Girma E, Asfaw S (2017). Predictors of breast self-examination among female teachers in Ethiopia using health beliefmodel. *Archives of Public Health*, **73**(39):1–7.

Casmir E, Anyalewechi N, Onyeka I, Agwu A, Regina N (2015). Knowledge and Practice of Breast Self-Examination among Female Undergraduates in South-Eastern Nigeria. *Health*, **7**: 1134-1141. doi: 10.4236/health.2015.79129.

Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM (2017). Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. *International Journal of Cancer*, **127**(12): 2893–2917.

Ferlay J, Soerjomataram I, Dikshit R, Eser S, Mathers C, Rebelo M (2015). Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer*, **136**(5):E359-86.

Haruna H, Chukwu E O, Ahmadu IA, Teryila, KR. Babaji M, Nelson L, Hamina D (2017). Knowledge and Practice of Breast Self-Examination Among female Nursing Students in University of Maiduguri, Borno State, Nigeria.

Kifle MM, Kidane EA, Gebregzabher NK, Teweldeberhan AM, Sielu FN, Kidane KH., Weldemenkerios, SH, Tesfay MG (2016). Knowledge and practice of breast self-examination among female college students in Eritrea. *AJPHR*, **4** (4):104-108.

Kumar M, Kashyap VM (2016). Awareness about breast cancer among women attending obstetrics and gynaecology department in a tertiary care hospital of Jharkhand, India. *International Journal of Community Medicine and Public Health*, **3**(4):938-943.

Makanjuola O, Amoo O, Ajibade B, Makinde O (2013). Breast cancer: knowledge and practice of breast self examination among women in rural community of Ondo State Nigeria. *Journal of Pharmacy and Biological Sciences*, **8**(1):32–37.

Natae SF (2017). Assessment of Knowledge, Attitude and Practice of Breast Self-examination among Ambo University Undergraduate Regular Female Students. *Journal of Medicine, Physiology and Biophysics*, **32**(1): 9-17.

Nde FP, Assob JC, Kwenti TE, Njunda AL, Tainenbe TR (2015). Knowledge, attitude and practice of breast self-examination among female undergraduate students in the University of Buea. *BMC Research Notes*, **8**(43), 6 pages, DOI 10.1186/s13104-015-1004-4.

- Nimir A, Al-Dubai SA, Al-Shagga MA, Saliem AM. (2014). Knowledge and practice of breast self-examination among students in a private higher learning institution in Malaysia. *Malaysian Journal of Public Health Medicine*, **14**(3):47-53
- Obaji I, Elom H, Agwu U, Nwigwe G, Ezeonu P, Umeora O (2013). Awareness and Practice of Breast Self Examination among Market Women in Abakaliki Southeast Nigeria. *Annual Med. Health Sci. Research*, **3**(1):7-12.
- Petro-Nustas, W. & Mikhail, B. I. (2014). Factors associated with breast self-10. examination among Jordanian women. *Public Health Nursing (Boston, Mass.)*, **19**:263–271.
- Radi SM (2013). Breast Cancer awareness among Saudi females in Jeddah. *Assian Pac. J. Cancer Prev.* **14**(7):4307-1432.
- Sideeq K, Ayoub TT, Khan SS (2017). Breast self-examination: assessing its knowledge attitude and practice among ethnic Kashmiri females. *Int J Community Med Public Health*, **4**(9):3288-3292.
- Sujindra E Elamurugan TP (2015). Knowledge, attitude and practice of breast self-examination in female nursing students. *International Journal of Educational Psychological Researches*, **1**: 71-74.
- Tilaki KH, Auladi S (2015). Awareness, Attitude, and Practice of Breast Cancer Screening Women, and the Associated Socio-Demographic Characteristics, in Northern Iran. *Iran J Cancer Prev.* **8**(4):3429.
- Tobin EA, Okeowo PO (2014). Breast self examination among secondary school teachers in South-South, Nigeria: A survey of perception and practice. *Journal of Public Health and Epidemiology*, **6**(5): 169-173.
- World Health Organisation (2013). Breast cancer: prevention and control. Geneva, Switzerland. Accessed 10 October 2018.
- Wu TY, Yu MY (2013). Reliability and validity of the mammography screening beliefs questionnaire among Chinese American women. *Cancer Nursing*, 131-142.