ASSESSMENT OF BREAST CANCER KNOWLEDGE AND IMPACTS OF PRACTICE DURATION AMONG FEMALE HEALTH PROFESSIONALS

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ABSTRACT

Breast cancer has been reported to be the most frequent female malignancy worldwide and the second largest cause of death among females in Nigeria. Studies from developing countries like Nigeria revealed inadequate knowledge and awareness about the disease. The aim of this study was to assess the knowledge of breast cancer and impact of practice duration among female health professionals in a government health institution in Ogun state, Nigeria.

A cross sectional descriptive prospective study was carried out among 162 female health professionals on knowledge of breast cancer. The data was analyzed using SPSS package version 16.0.

The study population comprised doctors (9.3%), nurses (78.4%) and Pharmacists, radiographers and lab scientists (12.3%) with mean age of 32.97 ± 0.92. The practice durations of the respondents ranged from 0 – 10 years (46.3%) and above 30 years (9.9%). All the respondents (100%) knew that breast cancer is a form of cancer. The doctors had a higher percentage knowledge in the following areas as compared to the nurses and the P/L/R group of respondents with statistical significance: Breast cancer is more common among older women than the younger ones (100%) (p-value=0.009), Breast cancer can strike both males and females (93.3%) (p-value=0.006) while the least knowledge recorded across board was in the area of breast cancer can strike both males and female (63.6% as percentage total). However, continuous education programme aimed at improving knowledge among healthcare providers should be given more attention.

Key Words: Breast Cancer, Knowledge, Health Professionals and Teaching Hospital

INTRODUCTION

Breast cancer is a disease affecting both developed and developing countries (Dundar *et al.,* 2006). It ranks as the fifth cause of death from cancer overall and is still the leading cause of cancer mortality in women, WHO (2012); Jemal *et al.,* (2007). Women have one in eight risk of having breast cancer during their lifetime and early detection through screening is the only way to reduce morbidity and mortality, (Beydağ and Yürügen, 2010; and Akhigbe and Omuemu, 2009).While breast cancer incidence has been shown to have stabilized or to be decreasing in some western countries, breast cancer burden has steadily increased in many developing countries with traditionally low incidence rates (Parkin *et al.,* 2008; and Adebamowo and Ajayi, 2000). In Nigeria, it has been reported to be the 2nd largest cause of death, (Adebamowo and Ajayi, 2000). Reports from developing countries like Nigeria revealed inadequate knowledge and awareness about the disease (Okobia *et al.,* 2006; Haji-Mahmoodi, 2002) with those in communities having low level of awareness often presenting late (Adebamowo and Ajayi, 2000). One major determinant of the possibility of a cure is the stage at which the patient presents. Female healthcare professionals have greater influence on women's positive perception of breast cancer and motivation to practice screening methods for early detection of the disease (Lurie *et al.,* 1997). In a study on Knowledge of breast cancer and its early detection measures among rural women in Akinyele Local Government Area, Ibadan, Nigeria, it was observed that rural women lacked appropriate information about breast cancer and its early detection measures. The finding that the major sources of information about beast cancer were "elders, neighbours and friends" suggests that health care workers are yet to succeed in their role of providing health information (Oluwatosin and Oladepo, 2006).

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Several studies have been carried out assessing the knowledge and also promoting the breast cancer screening. It has been shown that one of the strongest incentives for women to obtain a screening mammogram is the recommendation of their physician (Bastani *et al.,* 1991). A study conducted in Benin city on knowledge, attitudes and practice of breast cancer screening among female health workers, revealed poor knowledge and the screening methods as well as low level of practice of breast cancer screening among these health workers (Akhigbe and Omuemu, 2009). It is reasonable to assume that in order to be effective in their role as health educators, health care providers must possess the appropriate knowledge, attitudes, and beliefs concerning the health behaviours being promoted. The aim of this study was to assess breast cancer knowledge and awareness among female health professionals in one of the major government health institutions in ogun state, Nigeria. This could help in determining the need for continuing medical and health educational programmes to enhance breast cancer knowledge in Nigeria.

MATERIALS AND METHODS
The population of this study comprised female health professionals in Olabisi Onabanjo University Teaching Hospital (OOUTH), located in Sagamu, Ogun State. The categories of female health professionals included medical doctors, pharmacists, nurses, radiographers and laboratory scientists. Of the 170 copies of questionnaire adminstered 162 were retrieved giving a 95%. There was no strict parameter on the choice of female health professionals that were given the questionnaire apart from the fact that they were currently employed by the management of the institution and also that they were on duty at the time of the study. Males, females that were on vacation, other casuals, adminstrative staff members and those who refused to participate were excluded from the study.

Ethical Issues
Consent to administer the questionnaire was obtained from the appropriate authorities of the hospital before its administration. Maximum confidentiality of information was assured by excluding the names of the respondents or any information that could be linked to anybody.

Questionnaire Design
This was a cross-sectional descriptive prospective study and the primary instrument for the collecton of data was a pre-tested, self-adminstered questionnaire developed by the researchers. Questions were partly drawn using infomation on breast cancer from the literature text. Additional questions were adapted after modifications from questionnaires used in similar studies conducted previously in the country.
The questionnaire was divided into 3 sub-sections namely demographic information of the respondents, knowledge of breast cancer and duration of practice.

Data Analysis
Responses to questionnaire were entered into Microsoft Excel for sorting and SPSS version 16 was used for further analysis. Data was analysed using descriptive and comparative analyses. At 95% confidence interval, any P value of ≤ 0.05 was considered significant.

RESULTS
Respondent's Demographics Characteristics
Out of the 170 questionnaires adminstered to the respondents, 162 were correctly filled and retrieved, giving a percentage of 95% retrieval. The study population comprised doctors (9.3%), nurses (78.4%) and Pharmacists, radiographers and lab scientists (12.3%). The mean age of the respondents was 32.97 ± 0.92 (mean $\pm$ SEM). The married percentage was 76.5 while 78.4% practiced chritianity as a religon. The practice durations of the respondents ranged from 0 – 10 years (46.3%) and above 30 years (9.9%) (Table 1).

Correct Knowledge of Breast Cancer among Respondents
All the respondents (100%) identified breast cancer as a form of cancer. The doctors had a higher percentage in the following areas as compared to the nurses and the P/L/R group of respondents with statistical significance: Breast cancer is more common among older women than the younger ones (100%)

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Table1: Sociodemographic characteristics of respondents

Profession	Doctors	Nurses	Pharmacist/ Lab scientist/ Radiographer	Total (%)
	15 (9.3)	127(78.4)	20(12.3)	162(100)
	Frequency(%)	Frequency(%)	Frequency(%)	Frequency(%)
Age				
20 – 30 years	2 (1.2)	37 (22.8)	11 (6.8)	50 (30.9)
31 – 40 years	7 (4.3)	43 (26.5)	6 (3.7)	56 (34.5)
41 – 50 years	3 (1.9)	26 (16.0)	3 (1.9)	32 (19.8)
51 – 60 years	3 (1.9)	11 (6.8)	-	14 (8.6)
Above 60 years	-	10 (6.2)	-	10 (6.2)
Mean Age ± SEM = 32.97 ± 0.92				
Marital status				
Married	12 (7.4)	101 (62.3)	11 (6.8)	124 (76.5)
Single	3 (1.9)	26 (16.0)	9 (5.6)	38 (23.5)
Religion				
Christianity	10 (6.2)	101 (62.3)	16 (9.9)	127 (78.4)
Muslim	5 (3.1)	26 (16.0)	4 (2.5)	35 (21.6)
Traditional Worshipper	-	-	-	-
Duration of practise				
0 – 10 years	7 (4.3)	53 (32.7)	15 (9.3)	75 (46.3)
11 – 20 years	5 (3.1)	45 (27.8)	5 (3.1)	55 (33.9)
21 – 30 years	3 (1.9)	13 (8.0)	-	16 (9.9)
Above 30 years	-	16 (9.9)	-	16 (9.9)

Table 2: Knowledge of breast cancer among respondents

Variables	Doctors (n=15) No (%)	Nurses (n=127) No (%)	P/L/R (n=20) No (%)	Total (162) No (%)	p-value
BREAST CANCER KNOWLEDGE					
Breast cancer is a form of cancer	15 (100.0)	127 (100.0)	20 (100.0)	162 (100)	-
Breast cancer is the leading type of cancer among women i.e most prevalent	11 (73.3)	110 (86.6)	17 (85.0)	138 (85.2)	0.391
Breast cancer is characterised by the growth of malignant cells in the breast	12 (80.0)	127 (100.0)	19 (95.0)	158 (97.5)	0.000
Breast cancer can strike both males and female	14(93.3)	73 (57.5)	16 (80.0)	103 (63.6)	0.006
Women are more prone to developing the disease than men	15(100.0)	120 (94.5)	20 (100.0)	155 (95.7)	0.365
Breast cancer is more common among older women than the younger ones	15 (100.0)	79 (62.2)	15 (75.0)	109 (67.3)	0.009

P/L/R = Pharmacists, lab scientists and radiographers

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Table 3: Participants correct knowledge based on duration of practise

VARIABLES	0 - 10 years(n=7) Number(%)	11 – 20 years(n=5) Number(%)	21 – 30 years(n=1) Number(%)	Above 30 years(n=16) Number(%)	p-value
BREAST CANCER KNOWLEDGE					
Breast cancer is a form of cancer	75 (100.0)	55 (100.0)	16 (100.0)	16 (100.0)	-
Breast cancer is the leading type of cancer i.e most prevalent	69 (92.0)	44 (80.0)	13 (81.2)	12 (75.0)	0.142
Breast cancer is characterised by the growth of malignant cells the breast	74 (98.7)	55 (100.0)	16 (100.0)	13 (81.2)	0.000
Breast cancer can strike both males and female	47 (62.7)	33 (60.0)	11 (68.8)	12 (75.0)	0.701
Women are more prone to developing the disease than men	72 (96.0)	53 (96.4)	14 (87.5)	16 (100.0)	0.335
Breast cancer is more common among older women than the younger ones	53 (70.7)	37 (67.3)	6 (37.5)	13 (81.2)	0.041

(p-value=0.009), Breast cancer can strike both males and females (93.3%) (p-value=0.006), nurses had more knowledge in the following areas among the groups: Breast cancer is characterised by the growth of malignant cells in the breast (100%) (p-value=0.000), breast cancer is the most prevalent type (86.6) (no significance) while the least knowledge recorded across board was in the area of breast cancer can strike both males and female (63.6% as percentage total). See table 2.

Participants Correct Knowledge Based on Duration of Practise
Participants had 100 percent knowledge across board on: breast cancer is a form of cancer and those with 11-20 and 21-30 years practice experience having 100% in breast cancer is characterised by the growth of malignant cells in the breast, (X^2=19.810 df =3 p value=0.00). Only those with 21-30 years in practice had 100% in the question: Women are more prone to developing the disease than men but no statistical difference. The least knowledge (37.5%) was in the question: Breast cancer is more common among older women than the younger ones and was obtained by those with 21-30 years practice experience with (Table 3).

DISCUSSION
The knowledge of this study group about breast cancer was high with the doctors demonstrating higer knowledge in most of the areas as compared to the other groups (nurses, Pharmacists, lab scientists and radiographers (P/L/R)) who demonstrated near equal knowledge. This is consistent with earlier studies, (Shiyam *et al.,* 2009; Ibrahim and Odusanya, 2009). Knowledge of health professionals in any setting is very important because they are looked upon to give advice in health related issues to impact positively on their communities. Knowledge about breast cancer being a form of cancer, breast cancer is characterised by the growth of malignant cells and the gender that is most prone to having it was high across board although only response to number two question showed statistical significance. This result agrees with previous result, Agboola *et al.,* (2009). As expected, every health professional should know or should have come across the basics of breast cancer whether through professional training or in the course

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of their practice. Knowledge of breast cancer being the leading type of cancer among women was higher in this study when compared with a study in Benin city Akhigbe and Omuemu (2009).

Relationship between knowledge and duration of practice was not consistent in this study which agrees with earlier studies (Akhigbe and Omuemu, 2009; Shiyam *et al.,* 2009). A recent study from Malaysia (Devi *et al.,* 2007) found that training health care workers to improve their skills in cancer detection, coupled with raising public awareness, resulted in about a 50% reduction in stage III and IV cancers of the breast and cervix, at a comparative low program cost. It is reasonable to assume that in order to be effective in their role as health educators, health care providers must possess the appropriate knowledge, attitudes, and beliefs concerning the health behaviours being promoted.

Conclusion

The result from this study indicated that these female health professionals have a satisfactory knowledge and awareness of breast cancer as compared to earlier studies. This satistactory knowledge could be due to the campaign been carried out on breast cancer awareness many of which involve the health professionals. This knowledge will influence their roles positively in motivating and educating other women in the society who look upon them for advice and guidance in prevention of breast cancer. Considering the leading role played by these health professionalsas health educators more efforts should be made by both government and non-governmental agencies to improve thier knowledge and awareness of latest findings on breast cancer through education.

REFERENCES
Adebamowo CA and Ajayi OO (2000). Breast cancer in Nigeria. *West Africa Journals of Medicine* **19** 179–191.

Agboola AOJ, Deji-Agboola AM, Oritogun KS, Musa AA, Oyebadejo TY and Ayoade BA (2009). Knowledge, attitude and practice of breast self examination in female health workers in Olabisi Onabanjo University teaching hospital, Sagamu, Nigeria. *International Medical Journal* **8**(1) 5-10.

Akhigbe AO and Omuemu VO (2009). Knowledge, attitudes and practice of breast cancer screening among female health workers in a Nigerian urban city. *BMC Cancer* **9** 203.

Bastani R, Marcus AC and Hollatz-Brown A (1991). Screening mammography rates and Barrier to use: A Los Angeles County Survey. *Preview Medicine* **20** 350-363.

Beydağ KD and Yürügen B (2010). The effect of breast self-examination (Bse) education given to midwifery students on their knowledge and attitudes. *Asian Pacific Journal of Cancer Prevention* **11** 1761-1764.

Devi BCR, Tang TS and Corbex M (2007). Reducing by half the percentage of late-stage presentation for breast and cervix cancer over 4 years: a pilot study of clinical down staging in Sarawak, Malaysia. *Annals of Oncology* **18**(**7**) 1172-1176.

Dundar PE, Ozmen D, Ozturk B, Haspolat G, Akyildiz F and Coban S *et al.,* (2006). The knowledge and attitudes of breast self-examination and mammography in a group of women in a rural area in western Turkey. *BMC Cancer* **6** 43.

Haji-Mahmoodi M, Montazeri A, Jarvandi S, Ebrahimi M, Haghighat S and Harirchi (2002). Breast self-examination: knowledge, attitudes, and practices among female health care workers in Tehran, Iran. *Breast Journal* **8**(4) 222-225.

Ibrahim NA and Odusanya OO (2009). Knowledge of risk factors, beliefs and practices of female healthcare professionals towards breast cancer in a tertiary institution in lagos. BMC Cancer **9** 76.

Jemal A, Ward E and Thun MJ (2007). Recent trends in breast cancer incidence rates by age and tumor characteristics among U.S. women. *Breast Cancer Research* **9**(3) 28.

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Lurie N, Margolis KL, McGovern PG, Mink PJ and Slater JS (1997). Why Do Patients of Female Physicians Have Higher Rates of Breast and Cervical Cancer Screening? *Journal of General Internal Medicine* **12** 34-43.

Okobia MN, Bunker CH, Okonofua FE and Osime U (2006). Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross-sectional study. *World Journal of Surgical Oncology* **4** 11.

Oluwatosin OA and Oladepo O (2006). Knowledge of breast cancer and its early detection measures among rural women in Akinyele Local Government Area Ibadan Nigeria. *BMC Cancer* **6** 271.

Parkin DM, Sitas F, Chirenje M, Stein L, Abratt R and Wabinga H (2008). Part I: cancer in indigenous Africans—burden, distribution, and trends. *Lancet Oncology* **9**(7) 683–692.

Shiyam K, Ayesha MI, Nauman FM and Nehal M (2009). Knowledge, attitude and preventive practices for breast cancer among Health Care Professionals at Aga Khan Hospital Karachi. *Journal of the Pakistan Medical Association* **59**(7) 474-478.

World health organization (2012). Cancer; factsheets Copyright © WHO 2012. *(Available at: http://www.who.int/cancer).*