

# KNOWLEDGE, PRACTICES AND EDUCATION OF CLIENTS REGARDING BREAST CANCER SCREENING AMONG HEALTH CARE WORKERS IN PLATEAU, NORTH-CENTRAL NIGERIA.

\*+PM, UTOO and \*\*OO, CHIRDAN.

*\*Department of Epidemiology and Community Health, College of Health Sciences, Benue State University, Makurdi.*

*\*\* Department of Community Health, University of Jos, Jos.*

*+ Email [ipraiseter@yahoo.com](mailto:ipraiseter@yahoo.com)*

## ABSTRACT

**Background/objectives:** Majority of the Breast Cancer patients in our environment present at advance stage with poor prognosis. However, screening services like Breast Self Examination (BSE) exist where early diagnose would improve the prognosis. The objectives of the study were to determine the knowledge of Primary Healthcare Centre (PHC) workers regarding breast cancer, BSE, its practice and education of clients.

**Method:** A cross-sectional survey of 182 female PHC Workers of selected LGAs. A multistage sampling technique was used to obtain participants. Information was obtained using an interviewer administered questionnaire and analyzed with Epi info. 3.3.2 Version.

**Results:** Out of the 182 respondents studied, 80(44%) were Community Health Extension workers, 168 (92.3%) of the participants were aware of cancer of the breast. Their main sources of information were during training 63.7% and Media 19.7%. The respondents cited smoking (31.0%) and having a relative with cancer of the breast (31.0%) as risk factors associated with the cancer. Majority (91.7%) of participants knew the cancer could be prevented, although not all could link regular breast examination to the prevention. Most (87.2%) respondents knew how to perform BSE, out of which 75% had educated their clients with regards to breast cancer and BSE. Only 48(36.8%) knew the examination should be done monthly and for the purpose of lump detection.

**Conclusion:** The study revealed high level of awareness with some patchy in-depth knowledge regarding breast cancer and BSE among the respondents. The practice of BSE did not proportionately translate to education of clients. In-service educational programs should target PHC workers who will transfer the knowledge and skills adequately to their clients at the grass roots.

**Keywords:** Breast cancer, Breast self examination, Primary Healthcare workers, knowledge, practice, education.

## Introduction

Cancer of the breast is the 3<sup>rd</sup> most common cancer in the world and the commonest female malignancy worldwide<sup>1-6</sup>. It is a significant cause of morbidity and mortality, the 2<sup>nd</sup> leading cause of cancer death after lung cancer<sup>6-8</sup>. Although the incidence was lower in blacks than the Caucasians, the trend is changing rapidly in developing countries including Nigeria where the incidence is about 33/100,000 women<sup>6</sup>.

The increase in incidence could be attributable to demographic changes with increasing adoption of western life style with dietary changes, better reporting of disease and improved access to clinical care<sup>3,9-14</sup>. Unfortunately, majority of the patients in Africa present at advance stages with poor prognosis<sup>6,15</sup>. This late stage of presentation is a

reflection of the level of awareness of the disease in the environment. Since 30% of all cancers could be prevented, the control should be of increasing priority in the health programmes of developing countries. Although for cancer of the breast, the greatest hope for its control is early detection through screening as the primary prevention is quite challenging.

Additionally, 90% of cancers of the breast are detected by women themselves, therefore breast self examination (BSE) should be regarded as a crucial step in screening, as the earlier the detection, the better the outcome<sup>4,5,7</sup>. This can be practiced if individuals are empowered through health education. Primary Health Care workers are known to frequently come in contact with a large

proportion of the population particularly at the grass root. They are also considered to play an essential role in cancer prevention. Therefore, the practice of BSE among Healthcare workers who are expected to be the custodian of knowledge would tremendously enhance their skill and ability to influence the clients and patients they come in contact with particularly at the grass root.

This study was therefore aimed at determining the knowledge of Primary healthcare (PHC) workers regarding breast cancer; breast self examination (BSE) and its practice as well as education of their clients regarding breast cancer and BSE.

## **MATERIALS AND METHODS**

**Study design:** This was a cross sectional survey of female health workers in selected Primary Health Care (PHC) centers within selected local government areas in plateau state.

**Study population:** All female health workers in the selected PHCs who gave informed consent participated in the study.

**Sampling Technique:** To obtain the required number of participants a multistage sampling technique was used

**Stage one:** All the 17 Local Government Areas (LGAs) in plateau state were stratified into urban and rural LGAs.

**Stage two:** One rural and one urban LGA were selected through simple random sampling technique by balloting. The selected LGAs were Ryom and Jos South LGAs respectively.

**Stage three:** In each selected LGA the list of all PHCs was obtained from the PHC Director. From this list 24 PHCs were selected, 12 for each LGA using computer generated random numbers.

**Stage four:** All female health workers that were present and consented were served the questionnaire. A semi structured self administered questionnaire was used to collect data. This contained questions that sought to determine the professional cadre of the respondents, knowledge of cancer of the breast, breasts self examination (BSE), their practice of BSE and education of clients regarding same.

A total of 182 questionnaires were analyzed using EPI Info 3.3.2 version soft ware of the WHO<sup>16</sup>.

## **Results**

Eighty (44.0%) of the respondents were Community Health Extension Workers (CHEW)

while Nurse/Midwives were (17.6%) Table I. Among the respondents, 168(92.3%) had ever heard of cancer of the breast and their main sources of information were during training as professionals (63.7%) and from the media (19.7%). Some of the risk factors mentioned to be associated with the cancer were having a relative with breast cancer (31.0%), smoking (31.0%) and obesity (8.3%) among others as seen in Table II. Although 154(91.7 %) of the 'aware' respondents knew that cancer of the breast could be prevented, some could not cite breast self examination as a means of preventing breast cancer (Table II).

Among those that were aware of cancer of the breast, 156(92.9%) claimed to be aware of Breast Self Examination (BSE) and 136 (87.2%) of them knew how to perform BSE. While 102(75%) had ever educated their clients, only 71 (45.5%) of them knew that BSE can improve the outcome of cancer of the breast (Table III)

Additionally, only 48(30.8%) of them knew that BSE should be performed monthly. How frequent BSE should be performed was identified as: monthly 48(30.8%) and daily 40(25.6%) among the respondents (Table III). The reason for BSE as identified by the respondents were ; to detect breast lumps 134(82.7%) while 4 (2.5%) were just to admire the breast, others could not cite any reason for performing BSE.

## **Discussion**

Majority (92%) of the respondents in this study were aware of breast cancer, this is consistent with documented findings among nurses in Ebonyi and Secondary School Teachers in Enugu, south eastern Nigeria where 98 and 88.8% of respondents respectively were aware of breast cancer<sup>4,5</sup>. Some of the respondents could identify certain risk factors associated with breast cancer such as having a relation with breast cancer and also knew that the cancer could be prevented. However, 16% of them never knew regular breast examination as a means of doing so. This could be a reflection of their shallow depth of knowledge regarding breast cancer. It is a matter of concern because they need to pass across accurate information to their clients. Although, most of the respondents were aware of Breast self examination (BSE) and knew that BSE could improve breast cancer outcome. It is still worrisome to note that some of the 'BSE aware' respondents were neither educating nor demonstrating BSE to their clients. This reveals the importance of emphasizing the relevance of practice and education during training and

retraining of health care workers more so that they are females. In south western Nigeria, a study carried out among female practitioners demonstrated high level (94%) of awareness regarding BSE, although the monthly practice of BSE was found in only 50% of them<sup>17</sup>. Being practitioners and females for that matter one would expect a higher level of practice. Similarly, a study carried out among health professionals in south and north eastern Nigeria showed that 47.9% and 57.0% of them respectively practiced BSE monthly<sup>8,12</sup>. This reveals that the level of awareness is not commensurate to practice among healthcare professionals. Among medical students in a Kenya University, 94.6% have heard about BSE but regular practice of it was found in less than 20% of respondents<sup>18</sup>. On the contrary, a study carried out among African American women revealed that 75.8% of them had performed BSE<sup>19</sup>. This could be a reflection of the knowledge and practice of their healthcare givers and as such revealing the need to emphasize the relevance of BSE practice and education of clients during training and retraining of our grass root health workers.

### **Conclusion**

The study revealed high level of awareness with some patchy in-depth knowledge regarding breast cancer and BSE among the respondents. The practice of BSE did not proportionately translate to education of clients. Therefore, to increase community awareness regarding breast cancer and the practice of breast self examination, well organized sustained educational programmes/seminars and in-service training should target PHC workers who will in turn pass on accurate knowledge and skills to their clients.

### **References**

1. Edwin Van Wijngaarden, Leena A. Nylander-French, Robert C. Millikan, David A. Savtz, Dana Loomis. Population-Based Case control Study of exposure to electromagnetic Fields and Breast Cancer. *Ann Epidemiol* 2001; 11:297-303
2. Tero Hirvonen, Louise I. Mennen, Angelica De Bree, Katia Castetbon, Pilar Galan, Sandrine Bertrais, Nathalie Arnault, and Serge Hercberg. Consumption of Antioxidant-Rich beverages and risk for Breast cancer in French women. *Ann Epidemiol* 2006; 16: 503-508.
3. Timothy J. Key, Naomi E. Allen, Elizabeth A. Spencer and Ruth C. Travis. Nutrition and Breast Cancer. *The Breast* 2003; 12: 412-416 available online at [www.science-direct.com](http://www.science-direct.com) Last accessed 19<sup>th</sup> may 2010
4. UM Agwu, EP Ejaero, CN Ezenwelu, CJ Agbo, BN Ejikeme. Knowledge Attitude and Practice of Breast Self Examination among Nurses in Ebonyi State University Teaching Hospital. *Abakaliki. Ebonyi Medical Journal* 2007; 6(1):44-47.
5. PN Aniebue, UU Aniebue. Awareness of Breast Cancer and Breast Self Examination among Female Secondary School Teachers in Enugu metropolis south eastern Nigeria. *Journal of College of Medicine* 2008; 13(2):105-110.
6. EK Abudu, AAF Banjo, MC Izegebu, AOJ Agbola, CC Anunobi and OA Musa. Malignant Breast Lesions at Olabisi Onabanjo University Teaching Hospital Sagamu- a Histopathological Review. *The Nigerian Post graduate Medical Journal*, 2007; 14(1): 57-59.
7. KA Odeyemi and MA Oyediran. Effect of Breast Cancer screening Community intervention in Oke-ira, Lagos state, Nigeria. *Nig J Community Medicine and Primary Health Care*. 2002; 2(4):66 -68.
8. Clement A. Adebamowo, Temidayo O. Ogundiran, Adeniyi A. Adenipekun, Rasheed A. Oyeseun, Oladapo B. Campell, Effiong U. Akang, Charles N Rotimi, Olufumilayo I. Olopade. Obesity and Height in Urban Nigerian Women with Breast Cancer. *Ann Epidemiol*.
9. Clement A. Adebamowo, Frank B. Hu, Eunyoung CHO, Donna Spiegelman, Michelle D. Holmes, and Walter C. Willet. Dietary patterns and the risk of Breast Cancer. *Ann Epidemiol* 2005; 15: 789- 795.
10. Toriola F. Solanke. Relevance of Cancer Registry in Nigeria. *Nigeria Journal of Surgical Sciences* 1991; 1: (2-4).
11. S Abubakar, RA Rabi. Attitude to, Knowledge and Practice of Self breast Examination among female Health workers at the Murtala muhammed Socialist Hospital, Kano Nigeria.
12. S Jarvandi, A Montazeri, I Hairichi and A Kazemnejad. Beliefs and behaviours of Iran teachers toward early detection of breast cancer and breast self examination. *Public Health* 2002; 116: 245-249.
13. J. Thomas. Cancer control in Africa: A call for action. *Afri J Med. Sc* 2004; 33: 1-4
14. OC Oluwale. Awareness, knowledge and practice of Breast self Examination among

Female Health workers in a Nigeria Community. Sudan Journal of Medical Sciences 2008; 3(2):99-104.

15. AU Mbanaso, AC Adisa, C Onuoha, CI Mbanaso. Status of Breast Self Examination among Health professionals of Abia state University teaching Hospital. Journal of Experimental and Clinical Anatomy 2005; 4(1)
16. Epi Info version 3.2.3. Http://www.Cdc.gov/epinfo
17. SM Kimani, E Muthumbi. Breast Self Examination and Breast Cancer: knowledge and practice among Female Medical students in Kenyan University.
18. Chikwe H. Ihezue, Benjamin T. Ugwu, Edmund J. Nwana. Breast Cancer in Highlanders. Nigerian Journal of Surgical Sciences.1994; 4: 1-4.
19. McDonald PA, Thorma DD, Pearson JC, Adams Campbell LL. Perception and knowledge of breast cancer among African-American women residing in public housing. Ethn Dis. 1999; 9(1): 81-93.

**Table 1:** Professional cadres of respondents regarding awareness of cancer of the breast

*Cadre	Ca Breast		Total (%)
	Aware (%)	Not aware (%)	
MBBS	2 (1.1)	0 (0.0)	2 (1.1)
CHO	8 (4.4)	0 (0.0)	8 (4.4)
RN/RM	32 (17.6)	0 (0.0)	32 (17.6)
RM	4 (2.2)	0 (0.0)	4 (2.2)
SCHEW	36 (19.8)	0 (0.0)	36(19.8)
JCHEW	40 (22.0)	4 (2.2)	44 (24.2)
MLT	4 (2.2)	0 (0.0)	4 (2.2)
EHA	8 (4.4)	8 (4.4)	16 (8.8)
NR	34 (18.6)	2 (1.1)	36 (19.7)
<b>TOTAL</b>	<b>168 (92.3)</b>	<b>14 (7.7)</b>	<b>182 (100)</b>

MBBS: Doctor; CHO: Community Health Officer; RNRM: Registered Nurse Registered Midwife; RM: Registered Midwife; SCHEW: Senior Community Health Extension Worker; JCHEW: Junior Community Health Extension Worker; MLT: Medical Lab Technician; EHA: Environmental Health Assistant; NR: No Response.

**Table II:** Breast cancer knowledge among respondents

Features	Number	Percentages (%)
<b>Breast cancer awareness</b>		
yes	168	92.3
No	14	7.7
<b>Source of information</b>		
During training	116	63.7
Media	36	19.7
Friends/relations	14	7.7
Others	16	8.8
<b>*Risk factors associated with Breast cancer</b>		
Smoking	52	31.0
Relative with Ca breast	52	31.0
Very fat(obesity)	14	8.3
Getting old	16	9.5
Very poor	6	3.6
Others	58	34.5
<b>Can Ca breast be prevented</b>		
Yes	154	91.7
No	14	8.3
<b>How can Ca breast be prevented</b>		
Regular breast exam	130	77.4
Proper hygiene	12	7.1
Regular exercise	4	2.4
Good diet	2	1.2
Avoid smoking	2	1.2
others	18	10.7

\* Total more than 168 due to multiple citing

**Table III:** BSE knowledge, practice and education of clients among respondents who were aware of breast cancer.

Features	Number	Percentages (%)
<b>BSE awareness</b>		
yes	156	92.9
No	12	7.1
<b>Know how to perform BSE</b>		
Yes	136	87.2
No	20	12.8
<b>BSE education of client</b>		
Yes	102	75.0
No	34	25.0
<b>BSE can improve breast cancer outcome</b>		
Yes	142	91.0
No	14	9.0
<b>Why practiceBSE</b>		
To pick up a lump	134	85.9
Just to admire it	4	2.6
Just feel like it	8	5.1
others	10	6.4
<b>How often should BSE be performed</b>		
Monthly	48	30.8
Daily	40	25.6
Weekly	22	14.1
Others	46	29.5