

Knowledge and Awareness of Breast Cancer among Female Secondary School Students in Nigeria

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Abstract: Carcinoma of the breast is the leading cause of death in women aged 30 years and above. It reduces the life expectancy of the population at risk especially those between 31 and 50. The incidence of breast cancer is rising rapidly in the population group that used to enjoy low incidence of the disease. Majority of the patients present late in the hospital. It is therefore pertinent to assess the level of awareness and knowledge of breast cancer. The purpose of the study was to assess the level of awareness and knowledge of breast cancer as well as breast self examination among secondary school students. The study was a cross-sectional survey amongst students of three secondary schools in Nigeria. Each respondent was given a self administered questionnaire. 194 (97%) heard of breast cancer before, 61 (30.5%) mentioned radio/television as the first source of information. Knowledge of respondents was low. In conclusion majority of the respondents had heard of breast cancer but the knowledge and understanding of the disease was very low.

Key words: Breast Cancer • Female Secondary School Students • Nigeria

INTRODUCTION

Carcinoma of the breast is one of the leading causes of death in women aged 30 years and above [1]. It reduces the life expectancy of the population at risk especially those between 31 and 50.⁴ Breast cancer is becoming more common worldwide [1]. The incidence of breast cancer is rising more rapidly in the population group that use to enjoy low incidence of the disease [2]. Breast cancer has become the commonest malignancy (excluding skin cancers) in women worldwide, it has unfavourable prognosis in women aged forty years or younger. The knowledge and attitude towards breast cancer is low such that majority of the affected patients present late in the hospital when little or nothing can be done again [1]. Caucasians especially of North America descent seem to have the highest incidence of breast cancer. However, reports from other parts of the world indicate an increasing incidence as the women presumably adopt “western” lifestyle [3]. In multi-ethnic societies, the incidence and mortality differs among the various races giving the impression of certain

constitutional or genetic factors. The black woman presents late for treatment with a bigger mass and seems afflicted with a biologically more aggressive tumour [4].

There are lots of epidemiological variations in the occurrence of breast cancer in the developed and developing countries, the peak age of incidence of the disease in Nigeria is at least a decade earlier compared to the Caucasians [3]. Breast cancer is rare in men, being of the ratio 1:100 compared to women [5]. It also tends to occur in hypogonadic males and those with chromosomal abnormalities. In Nigeria, studies from various ethnic populations have reported the demographic profile of breast cancer especially from the western and northern parts of the country. A review of breast biopsies in the Lagos University Teaching Hospital showed 34 percent of all breast biopsies done over a 10 year period to be malignant [6]. A report from Zaria described the mean age of presentation of breast cancer at 42 years with 30 percent occurring in women less than 25 years of age [7]. At the university college hospital, Ibadan, 74 percent of breast cancer patients were premenopausal [2].

A ten year review of breast cancer in eastern Nigeria revealed that patient with breast cancer constituted 30 percent of all patients with breast disease and that 69 percent were pre-menopausal [8].

Breast Cancer Risk Factors include gender, age, family history of breast cancer, personal history of breast cancer, racial factor, radiation therapy to the chest, breast cellular changes, late menopause, early menarche, prolonged null parity, overweight, diet, alcohol consumption, tobacco smoking, exposure to oestrogen, oral contraceptive use, stress and anxiety [9,10].

Breast cancer use to be the disease of the developed world, incidence of breast cancer is on the increase in the developing world which includes Nigeria. However, the technical knowhow as well as the management of this disease has continued to elude the third world Nations who are still battling with communicable disease and prenatal mortality. Early diagnosis of breast cancer condition confer better diagnosis, hence the need for awareness.

The purpose of this study therefore is to assess the level of awareness of breast cancer among secondary school students

MATERIALS AND METHODOLOGY

Three female senior secondary schools in mainland local government area of Lagos, Nigeria were recruited into the study, however 200 questionnaires were administered and processed.

Sampling Method: Two hundred respondent recruited were spread across the three schools in direct proportionality to their population. Senior secondary (S.S.)3 students were excluded from the exercise due to the fact that they were writing their final examinations. There were 600, 200, 200 students respectively in both SS 1 and SS 2 of girls in the three secondary schools. Hence they were rationalized in the ratios 3:1:1, so 120, 40, 40 students were selected from the schools respectively using systematic sampling method with a sample fraction of 5. The first member was selected randomly between 1 and 5 and thereafter the fifth person was chosen which then makes the sampling members 5,10, 15, 20 etc.

Data Collection Tool and Technique: The study data was collected using self administered questionnaires divided into three sections A, B, C and D.

Section A contains the demographic characteristics of the respondents; section B covers the awareness of the respondents; while section C is concerned with the knowledge of the respondents about breast cancer and D is on breast self examination.

The questions were completely close-ended also included were multiple choice questions and checklist with an option of a free response when such responses are not in the checklist.

These questionnaires were administered during the break time, with the permission of the school principals and class teachers. A total of two hundred respondents were used.

Data Analysis: Satisfactorily completed questionnaires were collated and analyzed using Epi info. statistical software, version 3.5.1.

RESULTS

The age of the respondents ranged from 12years to 18years with mean age group of 14-16years. 100 (50%) were in senior secondary class 1 and another 100 (50%) in senior secondary class 11.

Majority of the respondents were Christians 1459(72.5%) while 55(27.5%) were Muslims, 147(73.5%) were Yoruba ethnic group. 169(84.5%) of the respondents lived with their parents, 28 (14%) with their guardians and 2 (1%) with their friends and 1(0.50%) no response.

194 (97%) had heard of breast cancer before now, while only 6 (3%) did not hear of it. On the first source of information about breast cancer 61(30.5%) of the respondents mentioned radio/television, while 38 (19%) said from their parents, 25(12.5%) indicated school, while 7(3.5%) and 3(1.5%) said that their first source of information were from religious organizations and guardians. 17(8.5%) mentioned friends while 1(0.5%) had their information.

Some facts about breast cancer, 42(71%) knew that breast cancer can affect single breast while 58(29%) had no idea. 148(74%) were aware that it can affect both breasts and 52(26%) were not aware. 109(54.5%) knew that early detected breast cancer is manageable 91(45.5%) did not know. 103(51.1%) of the respondents believed that breast cancer may treated by surgery. 97(48.5%) had no idea. 102(51%) knew that untreated cancer can spread to other part of the body, while 98(49%) had no idea.

The knowledge of the respondents on breast cancer was assessed about causes of breast cancer. 157(78.5%) said hugging the person with breast cancer does not cause the disease, 37(18.5%) doesn't know and 6(3%) said hugging can cause breast cancer. 128(64%) said no, 57(28.5%) do not know and 15(7.5%) said yes, on whether excessive mosquito bite is a cause of breast cancer. On sharing of plates, cutleries and cups with cancer patients, 153(76.5%) said no, 34(17%) do not know and 13(6.5%) said yes. On body contact or eating with cancer patient, 135 (67.5%) said No, 51 (25.5%) do not know and 14 (7%) felt it can cause breast cancer. The respondents knowledge on who breast cancer can affect shows 11 (5.5%) wicked people, 97 (48.5%) anybody with family history, 42 (21%) women that do not breast feed their children, 11 (5.5%) rich women, 13 (6.6%) poor women.

On breast self examination (BSE) only, 117 (58.5%) had heard of it and 77 (38.5%) never heard of it before. The source of information was mainly by the media 106 (53%) electronic (radio/television) and print (newspaper/magazine), while religious organization 16 (8%), parents 17 (8.5%), school 12 (6%), friends 11 (5.5%) and others 3(1.5%), no response in 35(17.5%) of the respondents. 93 (46.5%) could perform BSE, 90 (45%) could not and no response in 17(8.5%). Knowledge of respondents on how to carry out BSE, majority had no response to the question 79 (39.5%), while 76 (38%), 12 (6.0%), 9 (4.5%), 7 (3.5%) and 17 (8.5 %) were from seminars/health shows, mother, teacher, friends and others. On respondents knowledge on how BSE is performed; takes place after monthly menstruation 94 (47%) said yes and 80 (40%) said no and the rest did not know 16 (13%). It involves the use of finger tips for palpation- 93 (46.5%) said yes and 25 (12.5%) said no, others 82 (41%) did not know. Examine armpit (axilla) also, 90 (45%) said yes, 26 (13%) said No and others 84 (42%) did not know.

DISCUSSION

The age of the respondents ranged from 12-18 years with the modal age between ages 14 and 16 (55.0%) This age pattern is consistent with the class of the students as they were students from SS-1 and SS-2. The study was appropriate in this age group as they fall within the age bracket of adolescents who are always eager to find out information about things

happening around them hence a deadly disease like breast cancer should not be strange to them as well as breast self examination which has to do with looking out for changes on their own breast Most of the respondents were either Christians (72.5%) or Muslims (27.5%) as this makes the religious house a suitable enlightenment avenue.

Most of the respondents (97.0%) in this survey have heard of breast cancer as a disease entity reports from studies conducted in other regions of Nigeria shows that 97% and 92% of the respondents were aware of breast cancer as a disease entity [11,12]. This is different by my study as the overall level of awareness of respondents based on some questions asked showed that only about half (54.0%) of the respondents were duly aware of the disease (Breast cancer). This fair level of awareness of respondents could be attributed to the age and level of education of the respondents who were still in secondary schools and had little exposure and access to obtaining information from various sources as opposed to those in the other studies.

The major source of information about breast cancer was mass media in the study. Of which newspapers and magazine (30.5%) were the most common source of information closely followed by radio and television (23.5%). Similar observation was reported in Eastern state of Nigeria where 38.8% of the respondents' first source of information on breast cancer was the electronic media, [11] also supported by some other researchers [9,10]. The least reported primary source of information on breast cancer in the study was the guardian of the respondents (1.5%). This is one of the gaps existing in family life education as parents and care givers have no time to discuss pertinent health issues with their children. It may also be due to the fact that some of the parents have no information or knowledge on some of these topics and as such have little or nothing to discuss. Also the religious organisations well as the schools are not doing so well in this regard considering the fact every individual belonged to a particular religious organisation or school hence it has a wider range of coverage and as such should be used as an enlightenment medium. The sexuality education which is intrinsic in the educational system of an adolescent was not inculcated in school system.

The knowledge of respondents about the predisposing factors to breast cancer was low. Only 36.7 percent of the respondents had good scores on knowledge of these predisposing factors.

Some of the respondents had poor scores because of the belief that breast cancer was a contagious disease and can also be caused by excessive mosquito bites. This observation is consistent with study conducted in Eastern Nigeria where 35.5% of respondents could not tell whether or not cancer of the breast was infectious and 7.0% actually thought it was.[13] This showed that awareness is different from knowledge as many respondents were aware of the disease.

The knowledge of respondents about presence of warning signs of breast cancer was low as majority of them in this survey (62.5%) did not know the presence of warning signs of breast cancer. This finding was further corroborated with the study conducted in Port Harcourt, Nigeria where only 48.2% of respondents knew about the presence of warning signs of breast cancer [14].

The Knowledge and understanding of the respondents about breast cancer was very low despite the high level of awareness. This demonstrated the need for health education programmes on breast cancer in the study population. Early presentation of breast cancer to hospital will not only increase the chances of survival and better prognosis but patient could be "cured" of the disease. Among the respondents in the study, 54.5% believed that early detected breast cancer could be managed, also 51% of respondents acknowledge the fact that untreated breast cancer can spread to other parts of the body. This finding was in contrast to the study conducted in Port Harcourt, Nigeria where 66.4% erroneously believed that the disease was curable at any stage of presentation.[14] Most patients believed that as long as pain is not present in the course of an illness then there is no problem.

Less than half of respondents (37.5%) had good scores on the knowledge of symptoms of breast cancer. This further strengthened the need for breast cancer educational programmes. Knowledge of symptoms of breast cancer is important in ensuring that women present early at health care facilities for diagnosis and treatment. The respondents' knowledge in this study was high about 51.5% compared with report from Oyeka and Ezeama in Nigeria where 26.7% of the study group believed that mastectomy is the only treatment option and 54.9% remained silent on the treatment option [13]. This finding was anticipated because respondents in this study are literate and able to obtain information from electronic and print media and friends who are also educated.

Breast self examination is one of the screening techniques for early detection of breast cancer. In the study, above average (58.5%) of respondents heard about breast self examination. Unlike in the study conducted in Port Harcourt, Nigeria where 73.3% of the studied population had heard about breast self examination. 19.39% of the respondents in the study first heard of breast self examination from radio/ television while 14% first heard of breast self examination from Newspaper and magazines. About 38% learnt how to perform breast self examination from seminars and health shows. This is expected, as the study population is literate and listens to radio programmes, watch television and interact with health workers when confronted with problems. From the study, less than half of the respondents were knowledgeable about breast self examination procedure such that it was just 47% that knows that it is done post menstruation and it involves using the tip of one's fingers to feel for lumps (46.5%). The armpits should be examined during the procedure (45%). This revealed the low level of knowledge of respondents on breast self examination. It is apparent from this finding that practice of breast self examination is not done or done wrongly by many respondents because of the knowledge wide gaps on what to do and how to do it. Again, this further revealed that although many respondents are aware of breast self examination, the necessary information in the practice of it is lacking.

The gaps in knowledge on breast self examination culminated in poor attitudes of respondents to breast self examination. It is imperative to know that only 50% of respondents can actually perform breast self examination based on their response to the questions.

CONCLUSION

This study showed that most of the respondents had heard of breast cancer as a disease entity but the knowledge and understanding of the disease was very low among the study population.

It was also noted that only half of respondents had good knowledge about breast self examination.

Recommendation: There is therefore need for schools, parents, religious organizations, the media houses, governmental/nongovernmental organizations to improve on health education/campaigns about breast cancer.

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