

Knowledge, attitude, and practice regarding breast cancer among women of Kaduna Metropolis

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Context

The incidence of breast cancer disease is on the rise in Nigeria. There is an urgent need for adequate knowledge regarding the disease among the risky populations for necessary self-care practices as an intervention measure.

Aim

The main purpose of this study was to assess the knowledge, attitudes, and practices of women concerning breast cancer in Kaduna Metropolis of Kaduna State.

Settings and design

It was a cross-sectional study conducted in Kaduna Metropolis.

Materials and methods

Semistructured questionnaires were administered to 300 respondents who consisted of women within the ages of 18 years and older and residing in Kaduna Metropolis.

Statistical analysis

The collected data were analyzed using the IBM statistical package for social sciences, version 20.0 software programmer.

Results

Although the results showed that most of the respondents (93%) were aware of breast cancer through different sources of information, their average knowledge scores on risk factors (30.36), signs, and symptoms (48.7%) were below average; however, their knowledge on the different screening methods was slightly above average (53.8%).

Conclusion

The result showed respondents' high levels of awareness on breast cancer but poor knowledge on the risk factors, signs and symptoms, and screening practices despite their positive attitudes toward the disease.

Keywords:

attitude and practice, breast cancer, knowledge, risk factors, screening methods

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Introduction

Epidemiologic studies have shown high burden of breast cancer in both the developed and developing countries, and the cases were seen to be on the rise [1,2]. It had been reported to be associated with poor knowledge of the public regarding the disease and its risk factors, in addition to their attitudes and practices toward the screening and preventive practices [3,4]. Some of the common predisposing risk factors that have been reported to influence the prevalence of the disease include diet and diet-related factors, alcohol and tobacco consumption, hormones and reproductive factors, exposure to ionizing radiation, family history of breast cancer, and presence of benign breast disease [5–7].

To reduce the incidence of the disease, there was a need for understanding the respondents' skill and knowledge regarding the importance of paying close attention to lifestyles or related factors that might

expose them to the disease, in addition to their screening practices toward ensuring prevention [8–11].

Several studies had documented different levels of the knowledge, attitude, and practice of women regarding breast cancer from different parts of the world [12–14], with some from Nigeria [15–17]. In the course of our literature search, it was observed that not much information relating to patients' knowledge and practices on breast cancer was available in the Kaduna State; hence, the purpose of the study was to assess women's understanding and practices related to breast cancer. The outcome of the study will help in strengthening the preventive components of breast cancer control strategy in the state and by extension, Nigeria.

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Materials and methods

Study location

The study was carried out in three local government areas of Kaduna State (Kaduna South, Kaduna North, and Lere). Kaduna State is located in northwestern zone of Nigeria, sharing boundaries with Niger State to the west; Zamfara, Katsina, and Kano states to the north; Bauchi and Plateau states to the east; and Abuja and Nasarawa states to the south [18].

Study population and sample size

The study population consisted of all women within the age limits of 18 years and older residing within the study areas. The sample size was calculated using Slovin formula at confidence interval of 95%, with absolute precision of 0.05 [19].

Study design

The respondents were purposely selected based on strategic locations and population sizes, and at each of the selected location, simple random sampling was used in selecting the 300 respondents.

Ethical approval

The study was approved by the Ethics Committee of the Faculty of Pharmaceutical Sciences, University of Jos, Nigeria. The purpose of the study was explained to all the respondents, and their verbal consents were obtained. They were also assured of confidentiality of the collected information, in addition to informing them that participation in the study was voluntary.

Data collection

A semistructured questionnaire covering all the relevant information pertaining to the study variables such as sociodemographic information, knowledge, attitude, and practice of the respondent was included. It was developed based on questions used in previous peer-reviewed published studies, and the instrument was pretested on seven respondents within the study areas, and the results were excluded from the main report of the study.

The pretested questionnaires were then self-administered to the respondents within the study areas, with special guidance given to those who were not sufficiently literate. Thereafter, the filled questionnaires were retrieved on the spot by the researcher and coded for analysis.

Data analysis

The collected data were then encoded and analyzed using IBM statistical package for social sciences,

version 20, to statistically describe the frequencies of occurrences of the study variables among respondents (SPSS; SPSS Inc., Chicago, Illinois, USA).

Results

Respondents' demographic characteristics

Of the 300 (100%) respondents who participated in the study, 55.30% of them were within the age brackets of 18 and 27 years, with 26.7% being in the age bracket of 28 and 37 years; most of them (58.3%) were single, whereas 34.7% were married. Most of them (30.3%) had degree as their highest academic qualification followed by diploma/NCE/CHEW (28%) and secondary certificates (27.7%) (Table 1).

Respondents' awareness and sources of information on breast cancer

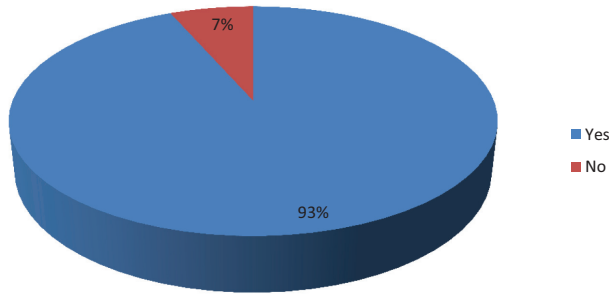
Most of the respondents (93%) had heard of breast cancer through different sources of information, with most of them identifying health workers and the media as their main sources of information (Figs. 1 and 2).

Table 1 Demographic characteristics of respondents (N=300)

Variables	Frequency (%)
Age (years)	
18–27	166 (55.3)
28–37	80 (26.7)
38–47	28 (9.3)
≥48	24 (8.0)
Marital status	
Single	175 (58.3)
Married	104 (34.7)
Divorced/separated	7 (2.3)
Widowed	12 (4.0)
Highest academic qualification	
No formal education	7 (2.3)
Primary	7 (2.3)
Secondary	83 (27.7)
Diploma/NCE/CHEW	84 (28.0)
Degree	91 (30.3)
Masters	21 (7.0)
PhD	4 (1.3)
Occupation	
Civil servant	53 (17.7)
Business	98 (32.7)
Farming	12 (4)
Students	125 (41.7)
Others	2 (0.7)
Average monthly income	
<5000	56 (18.7)
5000–10 000	59 (19.7)
11 000–20 000	48 (16.0)
21 000–30 000	27 (9.0)
Above 30	61 (20.3)

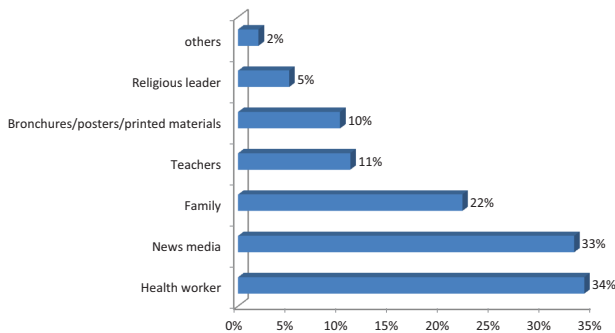
Cumulative percentage less than 100 for any subgroup was due to nonresponse.

Figure 1



Respondents' awareness of breast cancer disease.

Figure 2



Respondents' sources of information on breast cancer.

Respondents' knowledge on breast cancer

Table 2 shows that the respondents' knowledge on some of the predisposing risk factors of the disease such as positive family history (60.7%), tobacco consumption (53.7%) and smoking (52.7%) was fair, but their average knowledge score on all the selected risk factors was poor (30.36%).

Their knowledge regarding the signs and symptoms of breast cancer was below average (48.71%), though the details of the results (Table 2) showed their good recognitions of some of the symptoms such as presence of lumps in the breast (81.30%), pain or soreness in the breast (71%), swelling or enlargement of the breast (65%), discharge from the breast (57%), and changes in the shape of the breast (50%).

Approximately half of the respondents (53.80%) were able to identify the different screening methods for the disease, with most of them (72.7%) recognizing self-breast examination as the best screening method (Table 2).

Respondents' attitudes toward breast cancer

Most of the respondents admitted that breast cancer was more prevalent in Nigeria, with more than 70% of them agreeing that any woman could be at risk of getting the disease. Similarly, most of them

Table 2 Breast cancer-related knowledge scores of respondents (N=300)

Variables	Frequency (%)	% mean knowledge scores
Risk factors		
Increasing age	72 (24)	30.36
Positive family history	182 (60.7)	
High fat diet	117 (39)	
Smoking	158 (52.7)	
Race/ethnicity	38 (12.3)	
Working class women	37 (12.3)	
Alcohol consumption	149 (49.7)	
Tobacco consumption	161 (53.7)	
First child at late age	55 (18.3)	
Early onset of menarche	56 (18.7)	
Late menopause	40 (13.3)	
Stress	48 (16)	
Larger breast	72 (24)	
Signs and symptoms		
Lump in the breast	244 (81.3)	48.71
Discharge from the breast	171 (57)	
Pain or soreness in the breast	213 (71)	
Change in the size of the breast	134 (44.7)	
Discoloration/dimpling of the breast	130 (43.3)	
Ulceration of the breast	123 (41)	
Weight loss	97 (32.3)	
Changes in the shape of the breast	150 (50)	
Inversion/pulling in of nipple	110 (36.7)	
Swelling or enlargement of the breast	195 (65)	
Lump under armpit	92 (30.7)	
Scaling/dry skin in nipple region	95 (31.7)	
Screening methods		
Pathological examination of breast tissue by using fine needle aspiration cytology	104 (34.7)	53.80
Self-breast examination	218 (72.7)	
Clinical breast examination by doctor	194 (64.7)	
Mammography	128 (42.3)	
Ultrasound	142 (47.3)	

recognized screening practices as the best approach toward helping in the prevention or early diagnosis and treatment (65.3%) of the disease, with majority of them agreeing with surgical operation as the best treatment option (Table 3).

Respondents' breast cancer screening practice

Despite the fact that most of the respondents had good attitudes toward the disease (Table 3) and knew the right age for initiating self-breast examination (Table 4), their practice of self-breast examination was averagely poor (Table 4); more than 60% of them also confessed not visiting a medical practitioner for breast cancer examination and care (Table 4).

Table 3 Respondents' breast cancer-related attitudes

Variables	Frequency (%)
Breast cancer is highly prevalent in Nigeria and is a leading cause of death	
Agree	204 (68)
Disagree	28 (9.3)
I don't know	68 (22.7)
Any adult woman including you can acquire breast cancer	
Agree	219 (73)
Disagree	41 (13.7)
I don't know	40 (13.3)
Breast cancer cannot be transmitted from one person to another	
Agree	196 (65.3)
Disagree	57 (19)
I don't know	47 (15.7)
Screening helps in prevention of breast cancer	
Agree	231 (77)
Disagree	25 (8.3)
I don't know	44 (14.7)
Screening causes no harm to the client	
Agree	231 (77)
Disagree	24 (8)
I don't know	45 (15)
Can breast cancer be cured in its earliest stage?	
Yes	176 (58.7)
No	27 (9.0)
I don't know	80 (26.7)
How can someone with breast cancer be treated	
Herbal remedies	27 (9)
Surgery	142 (47.3)
Specific drugs given by the hospital	35 (11.7)
Radiotherapy	29 (9.7)
I don't know	55 (18.3)

Table 4 Breast cancer-related screening practices among respondents

Variables	Frequency (%)
Knowledge of age at which breast self-examination should be started	
Yes	189 (63)
No	111 (37)
Do you know how to perform self-breast examination?	
Yes	173 (57.7)
No	100 (33.3)
How often do you practice self-breast examination?	
Monthly	78 (26)
Once in 3 months	66 (22)
More than once in quarter of a year	20 (6.7)
Not very often	69 (23)
Never in a year	46 (15.3)
Have a medical practitioner ever examined you for breast cancer?	
Yes	76 (25.3)
No	205 (68.3)

Discussion

Although the result of the study showed high levels of awareness about breast cancer among the respondents,

their mean score knowledge regarding the risk factors for the disease was poor (30.94%) compared with the results of similar studies conducted by Akhigbe and Omuemu [5] who found the respondents' knowledge on breast cancer risk factors to be approximately 55%. On the contrary, the findings of the present study showed better knowledge of the study population on risk factors compare with a similar study conducted among women in Northern Nigeria [3].

Regarding the signs and symptoms of the disease, their understandings were averagely fair compared with the risk factors. The observed high knowledge of the respondents on some of the specific symptoms of the disease could be associated with the advancing stages of the disease, which are obvious. For instance, many of them knew that presence of lumps in the breast, pain or soreness in the breast, swelling or enlargement of the breast, discharge from the breast, and changes in the shape of the breast were symptoms of the disease, and these had been reported as indications of later stage of the disease [6,20,21].

The observation of poor breast cancer screening practices among respondents was similar to that found in a study conducted by Okobia *et al.* [16] but was contrary to similar studies conducted in developed countries, which showed the presence of regular self-breast screening practices among women and regular visitations to health personnel for checkup [22–25]. This may be helpful in early detection and prompt attention to any incidence of the disease, thereby arresting the situation at an earlier stage of the disease [23]. Although there was a high level of awareness about the disease among respondents through health personnel, news media, and family members (Figs. 1 and 2), their effect on the respondents' knowledge of the cause and prevention of the disease was minimal. It implies a need for more public teachings about the disease, using the identified common means of information dissemination (e.g., media), as most of the households have televisions or radio. In addition, community health talk on the disease could be organized, during which the disease-related information and its preventive measures could be passed on to the society [26].

Conclusion

The result of this study showed a high level of awareness about the existence of breast cancer disease among the respondents, who also had positive attitudes toward the disease, but their knowledge regarding the disease and the screening

practices was poor, which may affect the preventive practices of the disease.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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