

Knowledge of Screening for Breast Cancer Among Female Secondary School Teachers in Nsukka Local Government Area

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Abstract

Breast cancer is a public health problem globally. Good knowledge is a driving force for a positive action. The study was to find out the knowledge of screening for breast cancer among female secondary school teachers in Nsukka Local Government Area of Enugu state, Nigeria. To achieve this purpose, four research objectives with corresponding research questions and three null hypotheses guided the study. The cross-sectional survey research design was adopted for the study. The study population comprised of nine-hundred and ten female secondary school teachers in Nsukka Local Government Area as at the time of the study. Multi-stage sampling procedure was used to select a sample of two hundred and seventy-eight respondents from the study population. Instrument known as Knowledge of Screening for Breast Cancer Questionnaire (KSBCQ) was designed by the researcher as the instrument for data collection. The instrument was validated by five research experts from, University of Nigeria, Nsukka. Split half method was used to determine the reliability of the KSBCQ which yielded .704. Frequencies and percentages were used to answer research questions while chi-square statistical test was used to test the null hypotheses at .05 level of significance. The whole copies (278) distributed were used for analysis. The SPSS version 21 was employed for data analysis. The result of the study indicated that there was high level of knowledge (62.7%) for (BCS), high level of knowledge of BCS based on age (69.8%,66.9% and 67.5%) respectively; educational qualification, (61.3%, 62.7%, 66.6% and 33.3%) respectively; and location (61.8% and 66.2%) respectively, especially for breast self- examination (BSE). The study further showed no significant difference in the knowledge of BCS based on age ($\chi^2 = 7.071, P = .345 > .05$), educational qualification ($\chi^2 = 17.534, P = .205 > .05$) and location ($\chi^2 = 2.993, P = .536 > .05$). Based on the findings of the study, the researcher recommended, among other things, that seminars and workshops (especially on CBE and Mammography) should be organized by the government (Ministry of Health) for different teachers because they have the opportunity of teaching the younger ones early in life. This hopefully will improve their knowledge and invariably reduce morbidity and mortality from breast cancer.

Keywords: Breast Cancer, Screening, Knowledge, Female Teachers

Introduction

Breast cancer is a global health problem. It has been declared as the number one cancer scourge afflicting women (World Health Organization – WHO, 2015). In 2012, 1.7 million women were diagnosed with breast cancer and there were 6.3 million women alive who had been diagnosed with breast cancer in the previous five years (International Agency for Research -IARC, 2012). The report further stated that since 2008 estimates, breast cancer incidence has increased by more than 20% while mortality has increased by 14%. Also in the report, breast cancer was reported as the most common cause of cancer death among women (522,000 deaths in 2012) and the most frequently diagnosed cancer among women in 140 out of 184 countries worldwide, representing one in four of all cancers in women. Jemal et al. (2006) also asserted that breast cancer is one of the most common causes of cancer related deaths among women worldwide, accounting for 31% of cancer among women and 19% of deaths.

In Nigeria, breast cancer is currently the most common cancer, one or two in every 25 Nigerian women are at risk of breast cancer, but higher risks exist for women with family history (Olaleye, 2015). Okobia, Bunker, Okonofue & Osime (2006), asserted that the burden of the disease is increasing in Nigeria and mostly at advanced stages with minimal hope of any intervention that will significantly reduce disability and mortality. One of the major reasons observed for the late presentation was lack of access by most women to vital information on the factors that decrease breast

cancer risks (Sadler, et al., 2001). Furthermore, Odusanya & Tayo (2001) asserted that several studies about breast cancer in Nigeria have observed very low knowledge about symptoms of cancer of the breast and various screening methods. Nsukka local government has no established data on breast cancer statistics figures; but the researcher observed increasing incidence from the disease, with very high mortality due to late reporting of cases.

Screening is the act of testing or examining an object or person in order to identify those with a particular characteristic (Della Summer, 1989). Screening for breast cancer is the process of assessing or examining the breast tissue to check for the presence of any characteristic changes that may suggest risk of a person suffering from breast cancer. According to (Philip, Harris, Flaberty & Joslin, 2000), three screening methods for breast cancer includes, breast self-examination (BSE), clinical breast examination (CBE), and mammography. The authors asserted that unlike CBE and Mammography, which require hospital visit and specialized equipment and expertise, BSE is inexpensive and is carried out by females themselves. Mammography is complex and expensive but may pick up tumors long before they can be detected in any other way, thus enhancing better prognosis than those whose cancer is detected in some other ways (Aldridge, 2005). However, early diagnosis has been found to improve survival chances irrespective of the method that is used. The author further asserted that early diagnosis is only possible by educating women on the importance of examining their breasts regularly to identify any abnormality, which could later lead to significant health problems. Therefore, it is important for females to have a regular check of their breast as well as knowledgeable to be able to do this simple procedure efficiently to detect any abnormality in their breast.

Knowledge is critical to man's quality of life, because everything we do depends on knowledge. WHO (2007) asserted that knowledge is a prerequisite for any health action. The report further stated that many of the ailments people suffer are to a large extent, self-influenced by anti-health practice due to lack of knowledge. The report maintained that an educated, informed and knowledgeable person is the one who understands among other things the basic facts concerning health and disease, protects his or her health and that of his/her dependents. Knowledge, according to Della Summer, (1989), is fact or condition of knowing something with familiarity gained through experience or association. Adernounmu et al (2006) in their study on the knowledge and attitude of women to cancer of the breast in South Western Nigeria noted that inadequate knowledge of the disease and limited awareness of the risk factors for cancer of the breast contributed significantly to the poor prognosis of breast cancer among the females. Though breast cancer is occasionally seen in males, females are the most susceptible group.

A female is a person of the sex whose cell nuclei contain two X-chromosomes and who is normally able to conceive and bear young a child (Kernerman, 2010). The author further asserted that one distinguishing characteristic of the class mammalian is the presence of mammary gland. Explaining further, the mammary glands are modified sweat glands that produce milk, which is used to feed the young for some time after birth. According to the author, only mammals produce milk and mammary glands are most obvious in humans as the female human body stores large amount of fatty tissue near the nipples, resulting in prominent breast. Mammary glands are present in all mammals although they are vestigial in males of the species. This may be one of the reasons why females are prone to developing breast cancer and the more reason why they should be knowledgeable about the screening as a preventive measure of BC, especially early in life.

A teacher is someone whose job is to teach, especially in a school (Della Summer, 1987). According to prospects (2015), secondary school teachers must keep up to date with developments in their subject area, including new resources, methods and national objectives. They have opportunity of coming in contact with female students at their early adolescent stage (10-19 years). This can provide a golden opportunity for both the teachers and the students to get information on health matters like breast cancer screening as a way of preventing breast cancer through early detection. Isara and Ojedokun (2011) in their study asserted that the role of teachers in disseminating information among the students cannot be over emphasized. Alsaif (2004) asserted that since teachers play an effective role in communication and motivation of young students; assessment of their knowledge, attitude and behaviours is essential to reduce the risk of breast cancer among future young generation.

Most of the deaths due to breast cancer would have been prevented if the females had proper knowledge and can practice breast screening for early detection and treatment as well as control of the risk factors associated with the disease. Unfortunately, high incidence and mortality from breast cancer has been recorded world over (especially in developing countries). As a developing country, Nigeria has recorded low survival rate Olopade, (2004) and Nsukka LGA, in Enugu state is not an exception. Researchers also reveal late reporting of cases and poor diagnosis of cases among Nigerian women (Okobia, Bunker, Okonofue & Osime, 2006). It was in response to the current situation that the researcher investigated the knowledge of breast cancer screening among female secondary school teachers in Nsukka Local Government Area of Enugu State. The study investigated knowledge of Screening for breast cancer among female secondary school teachers according to age, educational qualification and location of the teachers. The study also tested the hypothesis of no significance difference in the breast cancer screening knowledge according to age, educational qualification and location.

Method

The study adopted a cross-sectional research design. The local government has thirty governments owned secondary schools with a total of Nine Hundred and Ten (910) female teachers (Enugu State Post Primary School Management Board-PPSMB 2015), which made up the population of the study. The multi-stage sampling procedure which involved four stages was employed to draw the sample 278 respondents for the study. The instrument for data collection is a structured questionnaire designed by the researcher on knowledge of screening for breast cancer questionnaire (KSBCQ). The questionnaire was divided into three sections, which include: section A, consisting of three (3) items which demanded for the bio-data of the respondents. Section B comprised of thirteen (13) multiple choice questions to elicit the knowledge of breast cancer screening among the female teachers. The respondents were expected to choose from the options provided from A-D, as it applies to them. The items in the questionnaire were organized to reflect the purpose of the study as well as the research questions and hypotheses. Face validity of the research instrument was established by five research experts from University of Nigeria, Nsukka. Split-half method was used to test the reliability of the instrument. The reliability of the KSBCQ was .704 and therefore adjudged suitable for the study, according to Ogbazi and Okpala (1994). Data collected were coded and analyzed using the statistical package for social science (SPSS, Version 21). To determine the knowledge, the modified scale for measuring knowledge by Okafor (1997) was used. Scores below 20% was considered very low level (VLL) of knowledge, 21-39% was considered low level (LL), 40-59% moderate level (ML), 60-80% high level (HL) and scores above 80% was considered very high level (VHL) of knowledge. Frequencies and percentages were used to analyze data on knowledge as well as the socio-demographic characteristics of the respondents. Chi-Square was used to test the null hypotheses all at .05 level of significance and appropriate degree of freedom.

Results

Table 1
Knowledge of Screening for Breast Cancer (n=278)

S/N	Item Statement	Correct Response		Incorrect Response		Decision
		F	%	F	%	
1	Breast cancer is preventable	259	93.2	19	6.8	VHLK
2	One way of preventing breast cancer is through screening for early detection	264	95.0	14	5	VHLK
3	Screening method for breast cancer include all except ultra sound of the breast	142	51.1	136	49	MLK
4	Early detection of breast cancer can prevent breast cancer	265	95.3	10	3.6	VHLK
5	All except headache and fever could be early signs of breast cancer	116	41.7	162	58.3	MLK
6	One should perform breast self-exam	192	69.1	86	30.9	HLK

	once a month											
7	One should perform, breast self-exam immediately after menses	150	54.0	128	46							MLK
8	Breast self-exam can be performed while standing up or lying down	238	85.6	40	14.4							VHLK
9	The following changes should be observed while performing breast self-exam except beauty of the breast	146	52.5	132	47.5							MLK
10	Clinical breast-exam should be performed in the hospital	243	87.4	35	12.6							VHLK
11	Between the ages of 20 and 39, clinical breast exam is recommended for females every three years	33	11.9	245	88.1							VLLK
12	From the age of 40 and above, clinical breast exam should be performed every year	193	69.4	85	30.6							HLK
13	Between the age of 50 and 64 mammography is recommended for females every three years	23	8.3	255	91.7							VLLK
	Overall %	174	62.7	104	37.3							HLK

Key: Scores below 20% -Very low level (VLL),21-39%-low level (LL), 40- 59% moderate level (ML) 60-80% - high level (HL) Score above 80% -very high level (VHL)

Data in Table 1 show that there is high level of knowledge (62.7%) of screening for breast cancer, especially for questions relating to BSE.

Table 2

Knowledge of Screening for Breast Cancer Based on Age (n - 278)

S/N	Item statement	n=53 20 – 30yrs				n = 148 31 – 40yrs				n = 77 41 – 60yrs					
		Correct response		Incorrect response		Correct response		Incorrect response		Correct response		Incorrect response			
		f	%	f	%	Dec	f	%	f	%	Dec	f	%	Dec.	
1	Breast cancer is preventable	49	92.5	4	7.5		137	92.6	11	7.4		73	94.8	4	5.2
2	One way of preventing breast cancer is through screening for early detection	47	88.7	6	11.3		144	97.3	4	2.8		73	94.8	4	5.2
3	Screening methods for breast cancer include all except ultra sound of the breast	24	45.3	29	54.7		75	50.7	73	49.3		43	55.8	34	44.2
4	Early detection can prevent breast cancer	48	90.6	5	9.4		145	98.0	3	2.0		72	93.5	5	6.5
5	All except headache and fever could be early signs of breast cancer	24	45.3	29	54.7		56	37.8	92	62.2		36	46.8	41	53.2
6	One should perform breast self-exam once a month	32	60.4	21	39.6		106	71.6	42	28.4		54	70.1	23	29.9
7	One should perform breast self-exam immediately after menses	26	49.1	27	50.9		84	56.8	64	43.2		40	51.9	37	48.1
8	Breast self-exam can be performed while standing up or lying down	43	81.1	10	18.9		129	87.2	19	12.8		66	85.7	11	14.3
9	The following	27	50.9	26	49.1		70	50.0	74	50.0		45	58.4	32	41.6

	changes should be observed while performing breast self-exam except the beauty of the breast													
10	Clinical breast exam should be performed in the hospital	45	54.9	8	45.1	133	89.9	15	10.1	65	84.4	12	15.6	
11	Between the ages of 20 & 39 clinical breast exam is recommended for females every three years.	9	17.0	44	83	18	12.2	13	87.8	6	7.8	71	92.2	
12	From the ages of 40 & above clinical breast exam should be performed every year	44	83.0	9	17	97	65.5	51	34.5	52	67.5	25	32.5	
13	Between the ages of 50 & 64 mammography is recommended for females every three years	37	69.8	16	30.2	96	64.9	52	35.1	48	62.3	29	37.7	
	Overall %	35	66.0	18	34.0	HLK 99	66.9	49	33.1	HLK 52	67.5	25	32.5	HLK

Data in Table 2 shows knowledge of screening for breast cancer based on age. The data shows high level of knowledge among all the age groups. Those within the age of 41-60 years had the highest level (67.5%), followed by those 30-40 years (66.9%), and lastly 20-30 years (66.0%).

Table 3:
Knowledge of Screening for Breast Cancer Based on Educational Qualification (n - 278)

S/N	Item Statement	n = 75 NCE				n = 161 First degree				n = 39 Master degree				n = 3 Ph.D.			
		Correct response		Incorrect response		Correct response		Incorrect response		Correct response		Incorrect response		Correct response		Incorrect response	
		f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
1	Breast cancer is preventable	68	90.7	7	9.3	155	96.3	6	3.7	36	92.3	3	7.7	0	0.0	3	100
2	One way of preventing breast cancer is through screening for early detection	71	94.7	4	5.3	153	95.0	8	5	38	97.4	1	2.6	2	66.7	1	33.3
3	Screening methods for breast cancer include all except ultra sound of the breast	32	42.7	43	57.3	86	53.4	75	46.6	23	59.0	16	41	1	33.3	2	66.7
4	Early detection can prevent cancer	74	98.7	1	1.3	151	93.8	10	6.2	38	97.4	1	2.6	2	66.7	1	33.3
5	All except headache and fever could be early signs of breast cancer	29	38.7	46	61.3	70	43.5	91	56.5	17	43.6	22	56.4	0	0.0	3	100
6	One should perform breast self-exam once a month	54	72.0	21	28	105	65.2	56	34.8	32	82.1	7	17.9	1	33.3	2	66.7
7	One should perform breast self-exam immediately after menses	39	52.0	36	48	85	52.8	76	47.2	26	66.7	13	33.3	0	0.0	3	100
8	Breast self-exam can be performed while standing up or lying down	59	78.7	16	21.3	142	88.2	19	11.8	35	89.7	4	10.3	2	66.7	1	33.3
9	The following changes should be observed while performing breast self-exam except the beauty of the breast	39	52.0	36	48	83	51.6	78	48.4	24	61.5	15	38.5	0	0.0	2	100
10	Clinical breast exam should be performed in the hospital	64	85.3	11	14.7	142	88.2	19	11.8	34	87.2	5	12.8	3	100	0	0.0
11	Between the ages	9	12.0	66	88	19	11.8	142	88.2	5	12.8	34	87.2	0	0.0	3	100

	of 20 & 39 clinical breast exam is recommended for females every three years.																				
12	From the ages of 40 & above clinical breast exam should be performed every year	55	73.3	20	26.7		110	68.3	51	31.7		27	69.2	12	30.8		1	33.3	2	66.7	
13	Between the ages of 50 & 64 mammography is recommended for females every three years	2	2.7	73	97.3		18	11.2	143	88.8		3	7.7	36	92.3		0	0.0	3	100	
	Overall %	46	61.3	29	38.7	HLK	101	62.7	60	37.3	HLK	26	66.6	13	33.4	HLK	1	33.3	2	66.7	LLK

Data in Table 3 above shows knowledge of screening for breast cancer based on educational qualification. The respondents with NCE, first degree and those with Master’s degree showed high level of knowledge for breast cancer screening (61.3%, 62.7% and 66.6%) respectively, while those with Ph.D. showed low level of knowledge, (33.3%). So, higher educational qualification did not totally determine higher knowledge of screening for breast cancer.

Table 4
Knowledge of screening for Breast cancer based on Location (n=278)

S/N	Item statement	n=204 within Nsukka Urban				n = 74 outside Nsukka Urban					
		Correct response		Incorrect response		Correct response		Incorrect response			
		f	%	f	%	f	%	f	%		
1	Breast cancer is preventable	189	92.6	15	7.4	70	94.6	4	5.4		
2	One way of preventing breast cancer is through screening for early detection	195	95.6	9	4.4	69	93.2	5	6.8		
3	Screening methods for breast cancer include all except ultra sound of the breast	96	47.1	108	52.9	46	62.2	28	37.8		
4	Early detection can prevent cancer	194	95.1	10	4.9	71	95.9	3	4.1		
5	All except headache and fever could be early signs of breast cancer	84	41.2	120	58.8	32	43.2	42	56.8		
6	One should perform breast self-exam once a month	139	68.1	65	31.9	53	71.6	21	28.4		
7	One should perform breast self-exam immediately after menses	105	51.5	99	48.5	45	60.8	29	49.2		
8	Breast self-exam can be performed while standing up or lying down	173	84.8	31	15.2	65	87.8	9	12.2		
9	The following changes should be observed while performing breast self-exam except the beauty of the breast	98	48.0	106	52.0	48	64.9	26	35.1		
10	Clinical breast exam should be performed in the hospital	174	85.3	30	14.7	69	93.2	5	6.8		
11	Between the ages of 20 & 39 clinical breast exam is recommended for females every three years.	25	12.3	179	87.7	8	10.8	66	89.2		
12	From the ages of 40 & above clinical breast exam should be performed every year	143	70.1	61	29.9	50	67.6	24	32.4		
13	Between the ages of 50 & 64 mammography is recommended for females every three years	17	8.3	187	91.7	6	8.1	68	91.9		
	Overall %	126	61.8	78	38.2	HLK	49	66.2	25	33.8	HLK

Data in Table 4 contains information on knowledge of screening for breast cancer based on location. Both those within and outside Nsukka showed high level of knowledge for screening for breast cancer (61.8% and 62.2% respectively) especially for questions relating to BSE.

Table 5
Summary of Pearson Chi-square on Knowledge of Screening for Breast Cancer Based on Age (n=278)

S/N	Item Statements	χ^2 value	df	P. Value	Decision
1	Breast Cancer is preventable	.451	2	.798	Accept
2	One way of preventing breast Cancer is through screening for early detection	7.611	2	.268	Accept
3	Screening methods for breast cancer includes all except ultra sound of the breast	5.783	2	.448	Accept
4	Early detection can prevent breast cancer	5.592	2	.061	Accept
5	All except headache and fever could be early signs of breast cancer.	9.548	2	.145	Accept
6	One should perform breast self-exam once a month.	14.853	2	.021	Accept
7	One should perform breast self-exam immediately after menses.	3.195		.784	Accept
8	Breast self-exam can be performed while standing up or lying down.	5.332	2	.502	Accept
9	The following changes should be observed while performing breast self-exam except the beauty of the breast.	7.415	2	.284	Accept
10	Clinical breast exam should be performed in the hospital.	8.949	2	.176	Accept
11	Between the ages of 20 and 39 clinical exam is recommended for females every three years.	8.596	2	.198	Accept
12	From the ages of 40 and above, clinical breast exam should be performed every	10.823	2	.094	Accept
13	Between the ages of 50 and 64 mammography is recommended for females every three years	3.777	2	.707	Accept
	Cluster χ^2 value	7.071	2	.345	Accept

Table 5 shows a chi-square calculated value of 7.071 with a corresponding p-value of .345 which is greater than .05 level of significance at 6 degree of freedom ($\chi^2 = 7.071$, $P = .345 > .05$). The p-value was greater than .05 level of significance at 36 degree of freedom. Therefore, the null hypothesis which stated that there is no significance difference in the knowledge of screening for breast cancer based on age was not rejected. This implies that the knowledge of screening for breast cancer among female secondary school teachers in Nsukka Local Government Area is the same for the various age groups.

Table 6

Summary of Pearson Chi-square on Knowledge of Screening for Breast Cancer based on Educational Qualification (n = 278)

S/N	Item Statements	χ^2 value	df	P. Value	Decision
1	Breast Cancer is preventable	44.117	3	.000	Reject
2	One way preventing breast Cancer is through screening for early detection	18.298	3	.032	Accept
3	Screening methods for breast cancer includes all except ultra sound of the breast	18.087	3	.034	Accept
4	Early detection can prevent breast cancer	8.648	3	.034	Accept
5	All except headache and fever could be early signs of breast cancer.	7.275	3	.608	Accept
6	One should perform breast self-exam once a month.	38.668	3	.000	Reject
7	One should perform breast self-exam immediately after menses.	15.258	3	.0874	Accept
8	Breast self-exam can be performed while standing up or lying down.	12.701	3	.177	Accept
9	The following changes should be observed while performing breast self-exam except the beauty of the breast.	19.511	3	.021	Accept
10	Clinical breast exam should be performed in the hospital.	3.296	3	.953	Accept
11	Between the ages of 20 and 39 clinical exam is recommended for females every three years.	13.747	3	.132	Accept
12	From the ages of 40 and above, clinical breast exam should be performed every	7.663	3	.568	Accept
13	Between the ages of 50 and 64 mammography is recommended for females every three years	20.673	3	.014	Accept
	Cluster χ^2 value	17.534	3	.205	Accept

Table 6 shows that there is no significant difference in the knowledge of screening for breast cancer based on educational qualification ($\chi^2 = 17.534$, $P = .205 > .05$). Since the P- value is greater than .05 level of significance at 3 degrees of freedom. Based on this, the null hypothesis which stated that there is no significant difference in the knowledge of screening for breast cancer based on educational qualification was accepted. This implies that the knowledge for screening for breast cancer among the female secondary school teachers in Nsukka LGA does not significantly differ with educational qualification.

Table 7

Summary of Pearson Chi-square on Knowledge of Screening for Breast Cancer based on Location (n=278)

S/N	Item Statements	χ^2 value	df	P. Value	Decision
1	Breast Cancer is preventable	.323	1	.570	Accept
2	One way preventing breast Cancer is through screening for early detection	5.988	1	.112	Accept
3	Screening methods for breast cancer includes all except ultra sound of the breast	7.777	1	.051	Accept
4	Early detection can prevent breast cancer	.088	1	.767	Accept
5	All except headache and fever could be early signs of breast cancer.	.306	1	.959	Accept

6	One should perform breast self-exam once a month.	1.282	1	.733	Accept
7	One should perform breast self-exam immediately after menses.	3.632	1	.304	Accept
8	Breast self-exam can be performed while standing up or lying down.	1.202	1	.753	Accept
9	The following changes should be observed while performing breast self-exam except the beauty of the breast.	11.680	1	.009	Accept
10	Clinical breast exam should be performed in the hospital.	3.775	1	.287	Accept
11	Between the ages of 20 and 39 clinical exam is recommended for females every three years.	.141	1	.986	Accept
12	From the ages of 40 and above, clinical breast exam should be performed every	1.935	1	.586	Accept
13	Between the ages of 50 and 64 mammography is recommended for females every three years	.779	1	.854	Accept
Cluster χ^2 value		2.993	1	.536	Accept

Table 7 shows that there is no significant difference in the knowledge of screening for breast cancer based on location ($\chi^2 = 2.993$, $P = .536 < .05$). Since the p-value is greater than .05 level of significance at 1 degree of freedom. So, the null hypothesis of no significant difference in the knowledge of screening for breast cancer based on location was accepted. This implies that the knowledge of screening for breast cancer among female secondary school teachers in Nsukka LGA did not differ significantly with location.

Discussion

The finding of the study in Table 1 shows a high level of knowledge (62.7%) of the female secondary school teachers in Nsukka LGA, though positive responses were high on questions about breast self-exam and lower for CBE and mammography. The result is accepted with mixed feelings because, it is expected that female teachers should be knowledgeable on all aspects of screening for breast cancer, considering the fact that breast cancer is a life-threatening condition with high mortality rate. The findings of this study favoured the study of Kayode, Akande and Osagbemi (2004) whose report showed that most (95.6%) of their respondents were aware of breast self-examination (BSE). Amoran, Toyobo and Fatugase, (2013) also however reported in their study that majority of their respondents, were not aware of mammography and none of them knew the age when regular screening should commence. For this study, high level of knowledge was shown for BSE but not for CBE and mammography.

The finding in Table 2 shows a high knowledge of screening for breast cancer based on age. The finding is at variance with that of Dannash & Al-Mohammed (2007) who in their study reported insufficient knowledge of female teachers (their subjects). Also, Makanjuola, Amoo, Ajibade & Makinde (2013) in their study reported a poor knowledge of BSE among a greater proportion of their respondents with a mean age of 26 years. This disparity in the findings of the researchers may be due to a continued increase in access to information through internet and other social media. There was no significance difference in the knowledge of screening for breast cancer based on age ($\chi^2 = 7.071$, $p = .345 > .05$). The result is not surprising because though the older teachers should be expected to have very higher knowledge about screening for breast cancer based on previous opportunities, the younger ones with the recent knowledge of ICT have greater chances of accessing the internet for varied types of information. Parsa et al (2008) also in their study reported that there was no association with BCS behavior ($p < 0.05$) and age.

Data in Table 3 revealed high level of knowledge for screening for breast cancer based on educational qualifications. Teachers with NCE had a high level (61.3%), first degree (62.7%), master's degree (66.6%) level of knowledge while those with Ph.D. had low level knowledge of breast cancer screening (33.3%). This finding is similar to the finding of Popoola, Igwilo & Sowunmi

(2013) who reported in their study that the awareness and practice of both breast self-exam and mammography dwindled with decreasing educational attainment. For this study, the above report only differs for the Ph.D. holders of which because of their small number, one may not use that to draw reliable conclusion or inference. There was no significant difference in the knowledge of screening for breast cancer based on educational qualification ($\chi^2 = 17.534$, $p = .205 > .05$). This result is surprising, because it was expected that higher educational attainment should provide opportunities for more and better knowledge though item 1 and 6 indicated a significant difference of ($p=0.000<.05$). In addition, other factors apart from educational qualification could determine the level of knowledge among the different groups, on health matters such as screening for breast cancer. Such factors could be personal interest, cultural belief, religious belief or others. This finding is at variance with the findings of Okobia Bunker Okonofua & Osime (2006) who reported that woman with higher educational qualification were significantly ($\chi^2 = 80.86$, $p = <0.0001$) more knowledgeable about breast cancer screening.

The finding of the study in Table 4 shows a high level of knowledge of screening for breast cancer based on location, 49(66.2%). This finding is at variance with that of Olowokere, Onibokun & Oluwatosin (2012) which revealed moderate to low level of knowledge on the different screening methods for women in rural communities in Nigeria. There was no significance difference in the knowledge of screening for breast cancer based on location ($\chi^2 = 2.993$, $P = .536 > .05$). This result was surprising because the expectation was that those dwelling at the urban areas should have more opportunities to acquire such knowledge. Though, with the recent explosion in information and communication, the result might be expected because with internet and easy means of transportation and communication, there has been limited restriction to information.

Implication of the study for health education.

The findings of this study, showed generally the knowledge of screening for breast cancer. Higher level of knowledge was shown for BSE, than for CBE and mammography. This is likely to be due to none availability of such facilities/services in the study area. This may pose a problem or hinder early detection of breast cancer among the female populace; considering the fact that mammography detects breast cancer early enough more than BSE. In addition, sometimes breast cancer can present with other symptoms other than painless breast lump, which CBE or mammography will pick better than BSE. The health educators and other health professionals utilizing these findings should intensify their health education and awareness creation, pointing out the benefits of such services. In general, the government can use data generated from this study, to design intervention programs that will help in improving the knowledge of screening for breast cancer, which is a major public health problem globally.

Conclusion

Based on the result of the study, the respondents showed high level of knowledge only for breast self-examination but neither for clinical breast examination nor mammography. This implies that majority of the teachers only know about breast self-examination as a screening method for early detection of breast cancer. No significant difference existed between knowledge and the socio-demographic variables studied (age, educational qualification and location).

Recommendations

The government as well as health educators have a role to play in this respect. Stakeholders in the government if sensitized with these findings should consider making available screening facilities and services in all cities across the country which is vital.

Seminars and workshops should be organized by the government (Ministry of Health) for different teachers who has the opportunity of teaching the younger ones early in life. Also, awareness creation should be intensified through different media like radio, TV, churches and other social media. This can come inform of jingles, so as to attract the attention of the people. These will hopefully improve their knowledge level which invariably will impact on their practice, thereby enhancing early detection and treatment.

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