Pak. j. life soc. sci. (2009), 7(1):78-85

Pakistan Journal of
Life and Social Sciences

Awareness of Women about Breast Cancer in Lagos State, Nigeria

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Abstract

This study examined the extent of awareness of women in Lagos State about breast cancer. Using a sample of 900 women that were selected using stratified sampling technique from the twenty Local Government Areas (LGAs) in the State, the study focused on questions such as whether respondents have heard about breast cancer, awareness about Breast Self Examination (BSE), practice of BSE, Awareness about clinical breast examination, awareness about signs and symptoms of breast cancer. Data were also retrieved on some demographic characteristics of the respondents, such as age, marital status, educational qualification, religion ethnic group and so on.

It was found out that awareness about BSE is generally low in the State and that its level depends on a number of factors such as Educational Qualification, Age, marital status, Religion etc. Expectedly awareness is higher amongst those with tertiary education while it was lowest amongst those who have never been to school. Married women are found to be more aware than other marital categories while women in more urbanized LGAs are found not to mind the examination of their breast by a male oncologist for lumps and other signs of breast cancer. Ethnicity and religion are found to be important variables in determining the level of awareness amongst the women in Lagos State, Nigeria.

Keywords: Breast, mammography, examination, education, cancer

Introduction

Survival for most cancers is much better if the concerned individual sought for treatment at an early stage of the disease but that is if the individual is aware of the possible significance of the early signs (Brunswick, Wardle and Jarvis, 2001). Many deaths due to breast cancer, for example, may be delayed or averted by secondary prevention methods, screening, and early detection (Valizadeh et al., 2006). The chance of having a diagnosis of breast cancer by age 25 years is 1 in 19608 and that despite technological advancement in this area through mammography (Michnoviez, 1994 in Valizadeh et al.,2006))Breast Self Examination (BSE) remains the predominant early identification tool (Coatanza, 1992 in Valizadeh, 2006). Remennick (2006) explained that the special nature of breast cancer makes it shrouded in fears,myths and connotations that are far beyond the objective clinical understanding of the disease. He explained that there is a widening gap between knowledge and practice and that even those women who are aware of the risk of breast cancer are usually unwilling to use available breast screening services.

Researchers and practitioners have a checklist of early warning signals of Breast Cancer which, they believe could assist the individual to seek for prompt medical intervention. Lump in the breast, change in the size or shape of the breast, Redness of the skin, flattening skin, Indentations of the nipple, and unexpected discharge from the breasts enlarged lymph nodes in the armpit ("axillary") are all listed as potential symptoms of breast cancer (Varrassi, 2008; Baron, 2008; National Breast Cancer, 2008; Oluwatosin et al ,2006). Explaining the importance of early detection of breast cancer, Karayurt et al(2008), posit that young breast cancer patients have a lower survival rate than old breast cancer patients due to being diagnosed too late. According to them, young women's cancer is usually more aggressive, thereby making early detection more important. In their concluding remark, they explained that there is need to increase knowledge of adolescent female about the risk of breast cancer and benefits of early detection and suggested that health professionals should develop effective health care programmes that will enable young women to imbibe good health care habit. In Nigeria, decline in breast cancer mortality rates is marked for younger patients, moderate for middle aged and increased for elderly women (Anyanwu, 2008).In furtherance of this, Anyanwu(2008) explained that studies from Nigeria show that breast cancer has overtaken cervical cancer, yet, general worldwide mortality

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rates indicated reduction in mortality as a result of early detection, more favourable stage distribution and improved management.

In the Nigerian contest, the failure to seek medical intervention on time may be attributable to a number of factors such as lack of formal education in general, lack of education on the subject matter of health, poverty, religion, culture, underestimation of personal health risks and the consequences of neglect and the unrealistic optimism where individuals tend to believe that positive events are more likely to happen to them than others (Welkenhuysen, Evers-Kiebooms and Decryyenaere, 2001). It is therefore not uncommon to find Nigerians who notice early symptom of a disease, to refuse to seek for prompt medical intercession because of psychological defense mechanisms which Remennick(2006) referred to as denial of one's own susceptibility and the belief that *'this cannot happen to me"*

In a study conducted to determine the extent of knowledge and warning signs of breast cancer among nurses in Lagos, Odusanya (2001[a]) discovered that though they have adequate understanding of the disease, only 30% of them have had breast examination and only 8% had mammogram in the past three years. It is important to note that 61% of them believed that they are not at risk. In a similar study for school teachers in Lagos, Odusanya (2001[b]) observed that though 85% of the respondents regard breast cancer as a serious disease but only 53.2% knew that a lump in the breast could be a symptom of the disease while other symptoms were less known and only one-quarter of them possess satisfactory knowledge of breast cancer. In another study by Balogun and Owoaje (2005), it was discovered that the level of awareness of breast cancer among female traders in Ibadan was highest among those aged 50 years to 59 years and that awareness was found to be related to educational attainment.

While acknowledging that studies on publicity and health education campaigns for the purpose of achieveing increase in public awareness on breast cancer are rare in Europe, Brunswick et al.(2001) observed that researches in this area have shown that there may be little impact of education on awareness of the warning signs of breast cancer in the United States of America and elsewhere.

The role of education in creating awareness on the early warning signs on breast cancer cannot be overemphasised in an environment where illiteracy rate is high but that is if human and material resources are available and adequate for such intervention. Table 1 shows the distribution of Registered Health Workers in Nigeria as at 2006.

Table 1 Registered Health Manpower in Nigeria

Category	1980	1990	1998	1999	2000	2001	2002	2003	2004	2005	2006
Medical Practitioners	8,037	19125	27750	29219	30885	35251	38355	40159	41935	42563	na
Veterinary Doctors	864	1935	91	196	233	14	153	197	204	205	258
Midwives	27,983	55,159	2708	1958	2086	2140	2121	1902	1754	2136	1838
Nurses	27,941	67,764	3325	3325	3611	3355	3141	3204	3430	3284	4182
Public Health Nurses	62	1516	129	91	158	223	100	128	112	132	69
Nurse Administrators	193	756	34	34	29	41	11	19	22	16	7
Midwife Educators	207	530	9	9	14	11	15	9	7	17	18
Psychiatric Nurses	1030	2866	139	137	232	278	224	267	220	207	250

Source: Registered Medical Professional Associations, Nigeria

Although, there are other professionals to supplement the work of registered health practitioners in providing health education to the people but figures in the table show gross deficit in the availability of manpower in the health sector in Nigeria. For instance, in 2006, there were only 6,622 registered health practitioners to a population of 140m. This is equivalent to one health practitioner to 21,142.

The objective of the present study is to examine the awareness of women in Lagos State, Nigeria about breast cancer. Apart from section 1 which discusses the background of the study, Section 2 is about the study area, Section 3 explains the materials and methods, Section 4 explains the results while Section 5 is on conclusions.

Materials and Methods

Study Area

Lagos State was created on May 27, 1967, through Decree Number 14, by the Federal Government. What was then the Federal Capital of Nigeria was merged with the old colony province of the defunct Western Region of Nigeria to form the new State. The state lies approximately between longitude $2^0$42' East and $3^0$42' East and latitude $6^0$22' North and $6^0$52' North. It is bounded in the South by the Guinea Coast of the 180km Atlantic Coastline, in the West by the Republic of Benin and in the North and East by Ogun State (Odumosu, Balogun and Ojo, 1999). The State has twenty local government areas, namely; Agege, Alimosho, Ibeju-Lekki, Surulere, Ojo, Lagos Island, Awori-Ajeromi, Ajeromi-Ifelodun, Shomolu, Epe, Ikorodu, Apapa, Eti-Osa, Badagry, Lagos Mainland, Ikeja,Mushin, Kosofe, Amuwo-Odofin and Ifako-Ijaye.

It has a total area of 3,577 square kilometer about 22 percent of which is water. (Oke *et al*., 2000). Despite its position as the smallest State in the Federation in terms of land mass, occupying only 0.4 percent of the area of Nigeria, it has gone through series of administrative transformation to metamorphose into a frontline position amongst the thirty-six states making up the federation of modern day Nigeria. Lagos State with a population of 9,013,534 million, distributed as 4,678,020 males and 4,335,514 females), is the most urbanized state in Nigeria. In 1963, the population of Lagos State was 1,444,000 with 603,000 males and 591,000 females. This grew to 5,725,116 in 1991 with a male population of 3,010,604 and 2,714,512 females. The population density of Lagos State is 2,455. (National Population Commission and National Bureau of Statistics, 2006)

Over 50 percent of industries in Nigeria are located in the state, contributing about 70% of the national gross industrial output. (Oke, Adedokun, Ogunlade, Soretire, Adetoro and Faweya, 2001) The state accommodates about 6.2 percent of the total population of Nigeria and its annual population growth rate is over 9 percent.

Population and sample

Breast cancer is not exclusive to females. According to Roubidoux and Patterson (20038):

"Male breast cancer is not a common condition, only accounting for approximately 1% of all breast cancers (ie, 1/100th the incidence of breast cancer in females)"

Though, male breast cancer may be worthy of thorough investigation, but the current study is restricted to women in Lagos State who are aged 15 years and above.For this purpose, the State was stratified into twenty local government areas (LGAs) which are statutorily recognised by the provisions of the 1999 constitution of the Federal Republic of Nigeria. A total of 900 sample elements were drawn from these LGAs.

The Instruments

The instrument consists of questions on the following: Local Government Area of the Respondent, Age, Marital Status, Religion, Educational Qualification, Ethnic Group, Occupation, Length of stay in the LGA, General Attitude of Women to Breast Cancer, Whether respondent has heard about breast cancer?, From which Source did the respondent heard about breast cancer?, Respondent's reaction to first knowledge about breast cancer, Is the respondent aware of Breast Self Examination(BSE)?,Does the respondent practice BSE?, How often does the respondent practice BSE?, Does the respondent think that breast cancer is life threatening, Is the respondent aware of clinical breast examination (screening),Is the respondent aware of signs and symptoms of breast cancer? And so on.

Only 883 (98.11%) of the 900 questionnaires distributed to the respondents were found usable for analysis.

Data Description

This section described the various demographic characteristics of the data set .Table 2 showed categories of each variable with their frequencies.

Table 2 shows that only 3.4 per cent of the respondents have never been to school while about 56.1 per cent have tertiary education. An indication that most of the respondents are functionally educated enough to appreciate the subject of the survey. Only 32.6 percent have never been married while about 20 per cent are below 25 years of age. At least 14.5 per cent are 40 years and above. Also about 49.7 per cent of the respondents have lived in their Local Government Area for at least 6 years while only 14.3 percent are not Christians. More than half of the sample is from the Yoruba ethnic group, this may be due to the fact that Lagos State is situated in the South-Western Nigeria which is a predominant Yoruba region of the country.

Awareness about BSE is generally very low across Local Government Areas(LGA). Among those who are conversant with the subject of breast cancer, Lagos Island Local Government recorded the highest number (7.9%), followed by Apapa (7.2%), Epe(7.2%) and Eti-Osa (7.0%) respectively. Amuwo Odofin and Badagry LGAs are probably the least aware on BSE with 1.9% and 2% respectively. Amongst the twenty LGAs, Epe ranked highest (9.6%) in practice of BSE while Agege(0.3%), Ojo(0.6%) and Ajeromi-Ifelodun (0.8%) are the least aware. In similar vein, awareness of clinical breast examination (screening) is very low across educational qualification.

Expectedly, awareness is highest (48.2%) amongst those who have tertiary education and extremely low (0.9%) amongst those who have never been to school. Yoruba (52.1%) are found to be most aware about signs and symptoms of breast cancer, this is followed by Ibo (29.9%) while Hausa are the least aware (1.8%). The other ethnic groups accounted for 16.1% of those who are aware of the signs and symptoms of breast cancer. Among the Hausa, 12% are either not aware or do not care to know about signs and symptoms of breast cancer. This is about 57.6% amongst the Ibo. These percentages are `probable indication of low awareness of the signs and symptoms of breast cancer amongst the residents of Lagos State.

The study showed that awareness of breast cancer is relatively high amongst Christians (88.7%) when compared to other religions (11.3%).Amongst those who are aware o f the signs and symptoms of breast cancer Lagos Island ranked highest accounting for 9.6%. This is followed by Oshodi (7.2%)

Table 2 Demographic characteristics of the sample elements.

Characteristic	*Frequency (%)*
Age of Respondent(Years)	
15 – 20	*80 (9.1)*
20 – 25	*96 (10.9)*
25 – 30	*143 (16.2)*
30 – 35	*156 (17.7)*
35 – 40	*158 (17.9)*
40 – 45	*110 (12.5)*
45 – 55	*67 (7.7)*
55 years and above	*60 (6.8)*
None-response	*13 (1.5)*
Marital Status	
Single	*288 (32.6)*
Married	*542 (61.4)*
Divorced	*8 (0.9)*
Widowed	*20 (2.3)*
Separated	*14 (1.6)*
None-response	*11 (1.2)*
Ethnic Group	
Yoruba	*494 (55.9)*
Igbo	*234 (26.5)*
Hausa	*28 (3.2)*
Other Ethnic Groups	*119 (13.5)*
None-response	*8 (0.9)*
Religion	
Islam	*119 (13.5)*
Christianity	*736 (83.4)*
Others	*7 (0.8)*
None-response	*21 (2.4)*
Duration of stay in Local Government	
Less than 1 year	*104 (11.8)*
2 years – 5 years	*281 (31.8)*
6 years and above	*439 (49.7)*
None- response	*59 (6.7)*
Educational Qualification	
Never been to school	*30 (3.4)*
Primary School Leaving Certificate	*71 (8.0)*
Secondary School Certificate	*262 (29.7)*
OND/NCE/Others	*190 (21.5)*
First Degree/HND	*239 (27.1)*
Postgraduate Qualifications	*66 (7.5)*
None-response	*25 (2.8)*

Table 3 Perception about Breast Cancer in Relation to Marital Status, Educational Qualification, Ethnicity, Age and Religion

RESPONSES	**Marital Status χ^2 '(p-value)**	**Educational Qualification χ^2 , (p-value)**	**Ethnicity χ^2 , (p-value)**	**Age χ^2 ,(p-value)**	**Religion χ^2 , (p-value**
Do you think that lifestyle can be adversely affected by breast cancer?	51.746,(0.000)	87.531,(0.000)	23.179,(0.006)	47.947,(0.001)	73.945,(0.000)
Have you heard about Breast Cancer?	15.062,(0.058)	79.683,(0.000)	20.155,(0.003)	14.089,(0.443)	64.145,(0.000)
How did you react to first information on Breast Cancer?	18.449,(0.103)	21.317,(0.127)	7.196,(0.617)	17.466,(0.682)	71.024,(0.000)
Are you aware of Breast Self Examination(BSE)?	17.687,(0.024)	61.753,(0.000)	9.535,(0.146)	18.083,(0.203)	43.244,(0.000)
Do you believe that Breast Cancer could be life threatening?	9.585,(0.295)	20.809,(0.022)	16.083,(0.013)	16.591,(0.279)	93.491,(0.000)
Do you practice BSE?	14.316,(0.074)	16.546,(0.281)	5.257,(0.511)	16.546,(0.281)	49.310,(0.000)
How often do you practice BSE?	3.075,(0.995)	11.447,(0.953)	16.283,(0.061)	11.447,(0.953)	9.112,(0.167)
Are you aware of clinical Breast Examination (Screening)?	12.116,(0.146)	18.799,(0.173)	6.471,(0.373)	18.799,(0.173)	66.021,(0.000)
How often do you go for screening?	9.259,(0.681)	23.077,(0.340)	6.306,(0.709)	23.077,(0.340)	10.977,(0.089)
Are you aware of signs and symptoms of Breast Cancer?	20.000,(0.010)	22.762,(0.064)	15.077,(0.020)	22.762,(0.064)	27.613,(0.000)
Can you allow a male oncologist to examine your breast for possible lump?	18.082,(0.021)	22.079,(0.077)	15.646,(0.016)	22.079,(0.077)	36.802,(0.000)
If diagnosed of Breast Cancer, will you allow your breast to be surgically removed?	9.516,(0.301)	10.529,(0.723)	8.982,(0.175)	10.529,(0.723)	47.389,(0.000)
Will you religion allow you to discuss breast health with people?	7.253,(0.510)	22.276,(0.073)	2.487,(0.870)	22.276,(0.073)	52.472,(0.000)

$\alpha = 0.05$

Source: survey

and Surulere (6.7%). Agege, LGA scored the lowest (1.0%).

Married women are found to be more aware (69.0%) than people in other marital categories on the signs and symptoms of breast cancer. This awareness seems to pre-dominate amongst those in the 25- 40 years age category (53.4%) while it is very low (15.3%) after the age of 50 years.

About 90% of the women interviewed in Epe LGA would not mind the examination of their breast by male oncologist. Interestingly, Epe also recorded the highest (9%) amongst the LGAs in this regard. Close to Epe is the Agege LGA (8%).

A noticeable pattern here is that the more women in the more urbanized LGAs tend not to mind examination by male oncologists. Most married women (60.4%) do not mind the examination of their breast for lump by male oncologists while only 1.1% of the divorced and the same percentage of widows belong to this category. Attitude towards the examination of breast for lumps by male oncologist improves with increase in formal education. At least 50% of none-literates will not allow male oncologist to examine their breast while 62.6 % of those who have received tertiary education would not mind such examination.

Data Analysis

Data colected were analysed using SPSS-10. Test of independence of the various attributes was carried out using the χ^2statistic.The study uses some descriptive statistics such as arithmetic mean and standard deviation to examine average awareness within the identifiable groups such as age, religion, ethnicity, occupation, marital status and educational qualification. Similar to the 3-point likert scale used in the questionnaire, a three point index that ranging from 1 to 3 where 1 means the respondent is awareness, 2 indicating lack of awareness was and 3 meaning indifference of the respondent to the subject matter was used. The mean for each category was placed on this index to determine the depth of awareness.

Results

The study examined each of the demographic characteristics shown in Table 2 in relation to the responses as follows:

Age in relation to awareness of the public on breast cancer

Table 3 shows that responses to whether breast cancer could affect their general lifestyle depend on age category. Other issues such as awareness about existence of signs and symptoms of breast cancer, awareness of Breast Self Examination and clinical breast examination (screening) and their practices by women in Lagos State all depend on age. This is in line with research results that confirm that older women tend to be less aware of the existence of breast cancer while those who are aware are less curious because of the general perception that the chance of having it decreases with age (Kirby, 2008; Delvin, 2008; Ramirez, Burgess and Linsell, 2008).

Supporting this position, Remennick (2006) observed that low health motivation is typical for older women in many cultures due to their 'relational' view of themselves as secondary and subservient to the need of those close to them. He explained that they see themselves as givers rather than receivers of care and attention and that while breast cancer risk is increasing with increase in age in many countries, the uses of screening facilities decline as women get older.

It is also important to mention that cultural believes plays a great role in general perception about surgical intervention on breast cancer. This is because older people who believe in reincarnation hold the believe that they have to die with all organs of their body intact, otherwise they come back to the world with deformity. For instance, in most traditional setting, removal of breast is seen as a taboo because the victim of such situation would come back to the world with one breast.

Awareness about BSE is found to be more between ages 40 and 44(mean = 1.33, σ = 0.511), followed by those in the age group 50- 54 years(mean 1.44, σ =0.611).Awareness was found to be least among the 15-19 year old (mean =1.55, σ =0.551) and 25-29 years(mean =1.55, σ =0.638).Almost all age groups believe that breast cancer is life threatening, though, this believe is found to be least amongst those who are 55 years and above (mean=1.37, σ =0.613).

Two age groups namely 15 – 19 years (mean =2.26, σ =0.915) and 55 years and above (mean =2.15, σ =0.943) are found to be least aware about the signs and symptoms of breast cancer while the awareness is more between ages 30 – 54 years.

Marital Status in relation to awareness of the public about breast cancer

Part of Table 3 examines the independence of marital status and awareness about breast cancer. The practice of BSE depends on the individual's marital status. Respondents are almost equally divided across marital status on whether they would allow male oncologists to examine their breast for lumps. In this regard Remennick (2006) suggested the involvement of men in breast cancer education, because according to him, in many societies, women would rarely visit clinics without approval or encouragement from their husbands, lovers, fathers or brothers. He suggested the mounting of special educational programmes targeting men since this will be very effective in changing women's motivation.

Married women are found to be most aware of BSE(mean=1.44, σ =0.574) while those who are unmarried (single, divorced, widowed and separated) are the least aware. However, this is different from clinical breast examination in which

the awareness is more amongst those who are separated from their spouse(mean=1.46, σ =0.519) compared to married women who are relatively less aware (mean=1.62, σ =0.552).

Women who are separated from their husband are found to be more aware of the signs and symptoms of breast cancer (mean =1.69, σ =0.947) than married women (mean =1.91, σ =0.959). From the result it seems that single women (mean=2.17, σ =0.948), widows (mean=2.39, σ =0.850) do not care to know much about the signs and symptoms.

Educational Qualification and perception about breast cancer

Reaction to first information on breast cancer, whether the respondents practice and frequency of practice of BSE, awareness of clinical breast screening, awareness of symptoms of breast cancer, respondents willingness to allow male oncologist to do breast examination, whether the religion of the respondents would allow her to get involved in discussion about breast cancer and whether the respondents would submit to surgical removal of her breast are all found to be dependent on the level of education.

Expectedly, none literates are least aware about BSE (mean =1.80,σ = 0.484) followed by those with primary school leaving certificates(mean =1.67, σ =0.505).Those with post graduate degrees are the most aware about BSE(mean =1.34, σ =0.594). It is interesting to note that additional educational qualification increases awareness about BSE. This situation is almost replicated in the awareness of respondent about clinical breast examination (screening).Non-literates are the least aware about screening (mean =2.04, σ =0.508), followed by those with primary school leaving certificate (mean =1.82, σ =0.458) while with tertiary education are the most aware.

In a similar fashion, people with post graduate qualifications tend to readily accept that breast cancer is a life threatening disease (mean=1.18, σ = 0.476) than those with lower qualifications. Non-literates are least aware about the signs and symptoms of breast cancer(mean =2.44, σ =0.751).This is followed by those with primary school leaving certificate(mean =2.39, σ =0.887) and awareness is more with better educational qualification people with postgraduate qualification are found to be most aware about the signs and symptoms of breast cancer(mean =1.64, σ =0.905).

Ethnic group of the respondent and perception about breast cancer

Table 3 shows that the respondents feeling about the effect of breast cancer on lifestyle, awareness of BSE, awareness about symptoms and signs of breast cancer and whether the respondent can allow male oncologist to examine breast for lumps are all independent of the respondents' ethnicity.

Religion and awareness about breast cancer

In table3, frequency of practicing BSE and clinical breast examination are found to be largely dependent on religion. It seems the situation in Lagos State does not differ markedly from the general research outcomes in other country where religion is found to play a significant role in the perception of women about breast cancer (Errico and Rowden, 2006).

Those who are neither Muslims nor Christians are the least aware about BSE (mean=1.71, σ =0.587). Awareness about clinical breast examination seems to be similar amongst Christians and Muslims (mean for Muslims= 1.65 with σ =0.550, and mean for Christians= 1.65, σ =0.5333), except that there is more cohesion in the perception of Muslims than Christians. More Christians (mean=1.26, σ = 0.500) believe that breast cancer is a life threatening disease than Muslims (mean =1.37, σ =0.597).Though, indication from results is that there seems to be general lack of awareness amongst religions(mean lies between 1.97 and 2.43, standard deviation lies between 0.923 and 0.976), the Christians are found to be more aware of the signs and symptoms of breast cancer(mean=1.97, σ =0.965) than Muslims (mean=2.16, σ =0.923) and other religions(mean =2.43, σ =0.862).

Discussion

This Study was designed to examine the perception and knowledge of women aged 15 years and above in Lagos State, Nigeria about breast cancer, the practice of BSE and other clinical breast examination techniques. It also examines the awareness of the residents about the signs and symptoms of the disease, and whether they would allow male oncologist to feel their breast for lumps. The result shows that there is generally low awareness about breast cancer across LGAs which is probably an indication of the situation in the entire State. Educational Qualification, Marital status and religion are found to affect level of awareness. The impact of other factors such as age, ethnicity and religion were also examined.

The study showed that awareness about breast cancer is dependent of age with women below 19 and those above 55 years being the least aware about the signs and symptoms of breast cancer. The study also shows that marital status has a role to play in awareness about breast cancer with married women showing more awareness than other marital categories. This is also true about awareness on signs and symptoms of breast cancer and the practice of BSE and other clinical breast examinations. The educational qualification of women was found in the study to impact on their awareness about breast cancer with none-literates being least aware. Ethnicity and religion are found to have similar effect.

The suggestion by Remennick (2006) that men should be involved in breast cancer education of those close to them, particularly their wives has a lot of policy advantages because such men having been fully aware of the inherent risk involved would persuade their wives to seek for prompt medical intervention.

Since the result of this study also agrees that awareness about breast cancer improves with education, governments at all levels particularly LGAs should strengthen their special programmes designed specifically to educate women on the importance of early detection in the reduction of breast cancer mortality. These programmes should be in local languages with emphasis achieving a balance between trado-religious beliefs and conventional medical solutions.

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