



Assessment of Breast Cancer Awareness in Tamale Metropolis in Ghana

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Abstract

The study assessed the extent of breast cancer awareness in the Tamale Metropolis in Ghana. Questionnaire, structured interview guide and focus group discussion were used to collect the primary data for the study. One hundred and twenty (120) women aged eighteen (18) years and above were purposively selected from Tamale metropolis for the study. It was found that though majority of the women were aware of the Breast Cancer disease, most of them attributed the cause to curses or punishment by gods for sins committed, and so instead of reporting the disease to formal medical facilities (hospitals and clinics), most of the women resorted to prayer camps, fetish priests, Mallams, herbalists, and native doctors. The study recommended among others that the government and for that matter Ghana Health service, and Tamale Metropolitan assembly should intensify breast cancer education and health care focussing on the '3 Ps' of prevention, protection and provision of care.

Keywords: Breast cancer, Breast self-examination (BSE), Mammogram, Risk factors, Clinical breast examination (CBE), Medical facilities.

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1. Introduction

The cancer of the Breast is the most common malignant tumour in women the worldover. Although cancer occurs in both men and women the prevalence of breast cancer is low in men. According to the [National Alliance of Breast Cancer Organisations](#) [1] out of every 100 diagnosed cases of breast cancer only one was a man. According to the [World Health Organisation](#) [2] each year over 1.4 million women worldwide. In Western countries, breast cancer is the most commonly diagnosed cancer in women and the second leading cause of mortality and morbidity in women. [America Cancer Society](#) [3] revealed that in the United States 226,870 women are diagnosed with breast cancer, with 39,510 deaths of the disease in the year 2012. In the Gulf Cooperation Council (GCC) countries breast cancer incidence rates are highest in Bahrain (49.8/100,000), followed by Kuwait (47.7/100,000) and Qatar (38.1/100,000) compared to other Arab peninsular countries, such as Saudi Arabia (22.4/100,000) or Yemen (20.8/100,000) [4].

In most developing countries breast cancer appears to be increasing particularly among populations that previously recorded lower rates [5]. According to [Ohene-Yeboah](#) [5] breast cancer is now the most common malignant disease in women and accounts for the majority of cancer related deaths in Ghana.

Since the national advocacy programme on breast cancer was launched in Ghana in 2008, there has not been any empirical study undertaken to ascertain the extent of awareness or knowledge of breast cancer in the Tamale metropolis of Ghana. The study was therefore conducted to assess the extent of awareness or knowledge of breast cancer among women in Tamale metropolis in Ghana.

2. Literature Review

2.1. The Concept and Definition of Breast Cancer

Breast cancer is the cancer that emanates from breast tissue, which most frequently come from inner lining of milk ducts or lobules that supply the ducts with milk. Cancers originating from ducts are known as ductal carcinomas; those originating from lobules are known as lobular carcinomas [3]. Breast cancer affects both human and mammals. In humans, though it is most frequent in women, the disease can also develop in men [3].

In general, breast cancer is the second most common malignancy of women in the Tamale Metroplis, after cancer of the uterine cervix [6]. Statistics, data, and literature on the disease are incomplete, and mostly, of epidemiological or clinical nature. [Opoku](#) [6] assert that Breast cancer is less common in sub-Saharan Africa compared to the Western countries (USA or Europe). Absence of health educational programmes on cancer as well as lack of screening facilities in nearly all countries in the region was a contributory factor to the late presentation of the cases. Breast cancer which is a very common disease in West Africa is often connected with a poor forecast for a variety of reasons.

2.2. Knowledge of Breast Cancer

[Friedman](#) [7] in their study published in the American Journal of Preventive Medicine noted that whereas over 90% of women were aware of breast self-examination (BSE) practice, a mere 27% perform Breast Self-Examination(BSE) monthly. They found that majority of their subjects knew about most of the recommended BSE steps. Forgetfulness, and being too busy were perceived to be the most commonly endorsed obstacle. On the other hand, the overall performance of BSE was quite low with only 12 out of 80 (15%) women reporting once a month performance, and 23% reported performing BSE irregularly. The most common reason for non-performance stated by women on the study was, not knowing the correct method of performing it while being too busy was the second most important reason.

[McDonald](#) [8] randomly selected 120 African -American women and interviewed them to determine their perceived severity of breast cancer, perceived barriers to breast cancer screening, and perceived benefits of mammography. Again, after assessing the knowledge about breast cancer, causes, risk factors, symptoms, and screening, the authors concluded that even though 75.8% of the women performed BSE, knowledge about breast cancer was poor. On the contrary other researchers found that only 12 % of women performed BSE regularly while an additional 23% were irregular performers and the overall awareness about breast cancer was moderate at 52%. The amount of cancer related research is enormous, and for that reason it is a matter of urgency that literature reviews are conducted to evaluate the thoroughness, and the extent to which research studies are conducted furthering the learning and study of cancer for physicians, nurses, educators, the general public and medical personnel.

With education programmes being developed to promote adherence to recommended breast cancer screening guidelines in the United States, [Sadler](#) [9] of the UCSD Cancer Centre, California conducted a study about breast cancer knowledge, attitudes and screening behaviour of 194 American Asian Indian women and concluded that majority of these women reported their breast cancer knowledge as being inadequate and monthly adherence to BSE was also poor. The study of [Sadler](#) [9] also determined the extent to which institutional arrangements in the United States of America (USA) supported preventive measures of breast cancer. It was evident, from Sadler's report that institutional framework in the USA supported greatly women's access to reproductive health rights as well as early detection and prevention of breast cancer.

In another study on breast cancer detection practices of 57 South Asian women aged 40 years and over, residing in Toronto, Canada, [Choudhury and Srivastava](#) [10] found that only 12% of the participants practised BSE regularly while majority (54%) said that they did not know much about breast cancer. This study revealed a similar percentage of BSE performers (12% claimed they were regular while 23% were irregular performers) and overall awareness level about breast cancer of 52%.

Studies conducted in Europe found a relatively different result. [Kung](#) [11] conducted a study on screening for breast cancer and cervical cancer in a large city in north western Germany. The authors found that rates of BSE was as high as 43%, and knowledge about available procedures for early detection of breast cancer was

good. Institutional arrangements as well as public education on breast cancer were revealed as adequate in their report.

Kung [11] also found that almost all women in their study group had had their breasts examined at least once by a medical doctor, however 6% of the women in Kung's study group did not know what mammography was. Kung [11] identified women who had had a mammography examination and concluded that most of them did belong to upper class (75.4%) and middle class (56.3%).

A study by Erbay [12] on 244 women found that although 76.7% of the women indicated having knowledge about breast cancer, a relatively smaller percentage (56.1%) of the women had significant knowledge about the disease. Although 72.1% of the respondents indicated having heard or read about BSE practice, only 40.9% of them really reported having practised BSE in the last 12 months. In their study lesser number of women had heard of BSE (32%), and only 12% were regular while 3% were irregular performers and 53% never heard about BSE.

In another study of breast self-examination attitudes and practices, on women aged between 17 and 30 years of age Wardle [13] showed that 54% of women reported that they have never practised BSE. Cultural, poverty and traditional beliefs were noted as influential factors for non-access to medical facilities by people from undeveloped nations. Avci [14] conducted a descriptive correlational study to identify knowledge levels and performance frequency of BSE and to examine variables related to breast cancer screening behaviours in a sample of 103 Muslim female workers at a hazelnut factory in Ordu city, Turkey. The author found that 26.2% of the respondents indicated having knowledge about BSE, and the BSE performance was as low as 4.3%. The study on the other hand showed that 62% of women had heard of BSE; however a smaller percentage (12%) claimed to be regular performers.

Yaren [15] in their study conducted in Turkey concluded that the risk factors and symptoms of breast cancer were generally well known except for early menstruation and late menopause. The overall awareness among the study group was slightly lower and none of the women identified early menarche and late menopause as risk factors. In addition to the above, the women believed that BSE is a very potent method of screening breast cancer. This study affirmed that menopause could be a contributing factor to breast cancer. Most women included in this study group too (73 out of 80), ie about 90% showed a positive attitude towards breast self-examination but never had their breast examined. In Puerto Rico's first national study of breast cancer knowledge, beliefs, and early detection practices among elderly women (65years and above) Sanchez [16] found no statistically significant correlation between knowledge and early detection practice. Although 38.75% indicated having good awareness about the disease, only 12% actually performed BSE on a monthly basis. Sanchez [16] also noted that those women who had lesser misconceptions were more likely to have had a clinical breast examination (CBE) or a mammogram. The researchers found that there was a positive correlation between higher socio-economic status, and BSE performance as did age. In their study too, it was found that women belonging to a higher social class were more aware than those who were economically challenged, and younger women were more aware than older ones. Berner [17] also conducted a cross sectional questionnaire based survey to evaluate knowledge, attitudes and practices related to breast cancer screening among 1750 Arabic women aged 40 to 65 years who attended primary health care centres. It was found that knowledge about breast cancer screening was low and only 12.7% of the respondents practiced BSE. This study too included women over 40 years of age. Overall awareness in the study group rated higher (52%) but BSE performance was similar to the Arabic study (12 % were regular and 23% were irregular performers).

Opoku [6] conducted a similar study in Ghana and revealed that, 35.7% of the participants were of the view that, the disease was very common, 24.5% indicated that the disease was common, 12.8% believed it was uncommon, whilst those who did not know anything about the disease formed 27%. According to the researchers, the participants or respondents showed a knowledge deficit about both the disease and its screening which was evident from the poor appreciation of the risk factors and high level of misconceptions and misinformation. For instance only 8.2% and 1.7% mentioned increasing age and early menarche respectively as risk factors. Other factors mentioned included smoking (6.3%), obesity (1%), late menarche (1.5%), family history (5%) and benign breast disease (4.2%). The result of it is that, the disease is still connected with myths and uncertainty surrounding its causes and risk factors. A very important misconception held by 20% of the respondents was that coins put in the brassieres can increase a woman's risk for the disease. Notwithstanding the above results, a weak correlation was found between the levels of education and the self-reported knowledge about the disease, with higher levels of education being associated with higher levels of appreciation about the disease. According to the Opoku [6] self-reported breast cancer screening (breast self-examination (32%), clinical breast examination (12%) and mammogram (2%)) rates among the respondents were also found to be very low. As with the knowledge about the disease, higher educational level of the respondents was very significant for breast cancer screening practices. It was clear from the study that mammography was more of a diagnostic examination than screening because of lack of routine screening of mammography services in Ghana. This study did not specifically focus on best screening practices but on general medical response for breast cancer.

2.3. Causes/Risk Factors of Breast Cancer

A study by Appau [18] revealed the following; hereditary, dietary and lifestyle factors as contributors to breast cancer risk. In the report the author stressed that women whose mothers had breast cancer are at twice the risk for developing this disease; generally the younger the mother is at the time of diagnosis the greater the risk. 'If a sister has breast cancer or a brother has prostate cancer the risk can increase even more. Diets high in fat are also linked to this illness; because more fat cells produce more estrogen, high fats promote early onset of menstrual cycle, and there are hydrogenated fats from trans-fatty acids found in margarine which are considered cocogenic'. Increased alcohol consumption also promotes increased estrogen levels. Lack of frequent, physical

exercise can also be a risk factor. This is because regular exercise has been proven to decrease estradiol absorption and improves immune response.

3. Methodology

The study was a survey which employed questionnaire, structured interview guide and focus group discussion to collect the primary data. One hundred and twenty(120) women aged eighteen(18) years and above were purposively selected from Tamale metropolis for the study. Secondary data was sourced from books, journal articles, and reports by some international organizations including World Health Organisation(WHO). Frequency table, and bar chart were used to present and analyse the data.

4. Results and Discussion

4.1. Knowledge of Breast Cancer

In testing the respondents' level of knowledge and awareness of breast cancer, out of 120 women 108 respondents representing 90% indicated having heard about the disease while 12(10%) have not heard about the disease at all. These findings are consistent with that of Yavari [19]. In that study 75% of the sample knew about breast cancer with 20% having no idea while 5% were not sure about their level of awareness. Though the level of awareness of the existence of breast cancer disease was high, instead of reporting to formal medical centres or facilities, they rather go to native doctors/herbalists, prayer centres/camps, fetish priests among others for cure. This is due to the fact that they believe the causes of breast cancer are punishment by gods for sins committed, curses, religious and traditional or cultural beliefs. This is consistent with the study by Wardle [13]. This above is represented in Figure 1.

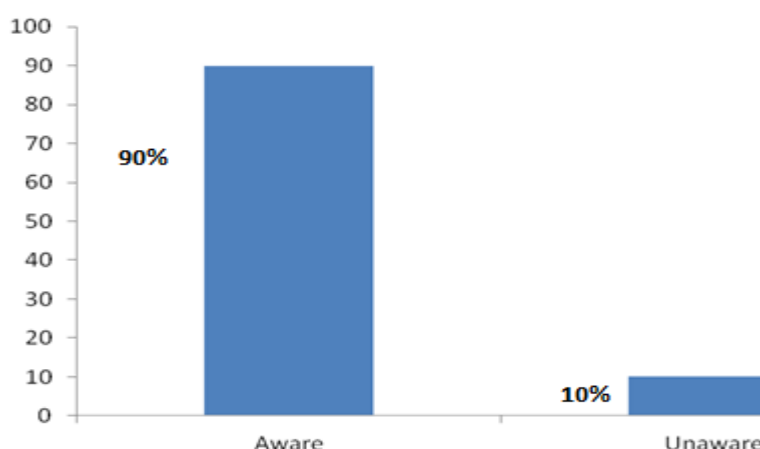


Figure-1. Knowledge/Awareness of breast cancer

Source: Field survey, 2012

4.2. Medium/Sources of Awareness

When asked about their sources of the breast cancer information, 37(30.8%) were informed through the radio, 35(29.2%) of the respondents received information about the disease during community sensitisation programmes, 24(20%) were informed through the television, 23(19.2) received their education at health centres while one woman forming 0.8% indicated other sources.

4.3. Knowledge of Causative or Risk Factors

The respondents believe that breast cancer is caused by old age, curses or punishment by gods for sins committed, hereditary, dietary or life style, stress/trauma, and infections.

Out of the 120 women, 23 representing 19.1% were of the view that breast cancer is hereditary. This confirms the study by Appau [18]. 62(51.7%) also indicated that curses/punishment by gods for sins committed is the cause of breast cancer, 20(16.7%) believed breast cancer is caused by dietary/lifestyle, whilst 8 women representing 6.7% believed old age is the cause of breast cancer. Two (2) respondents representing 1.7% attributed the disease to stress/trauma whilst five (5) or 4.1% believed infections cause breast cancer. It is rather shocking that majority of the women (51.7%) attributed the cause of breast cancer to curses/punishment by gods for sins committed. There is no doubt that instead of seeking formal medical attention, they resort to prayer camps, Mallams, Fetish priest, native doctors, herbalists etc.

The above findings are presented in Table 1.

Table-1. Causes of Breast Cancer

| Causes | Frequency | Percentage |
|--|-----------|------------|
| Hereditary | 23 | 19.1% |
| Curses/punishment by gods for sins committed | 62 | 51.7 |
| Dietary/lifestyle | 20 | 16.7 |
| Old age | 8 | 6.7 |
| Stress/trauma | 2 | 1.7 |
| Infections | 5 | 4.1 |
| Total | 120 | 100% |

Source: Field survey, 2012

5. Conclusions and Recommendations

From the findings it is important to put in measures to provide breast cancer information in comprehensible manner to the benefit of the entire Ghanaian women population especially those in the low socioeconomic status and the rural communities. Although some awareness activities are taking place in Ghana, it is important to question the tools which are being utilised to educate Ghanaian women about breast cancer and how effective these activities have been. This study found out that majority of people within the Tamale metropolis would rather report breast cancer cases to the herbalist/native doctors or prayer centres/camps than to formal medical centres. This is due to the misconception or myth that breast cancer is as a result of punishment for sin committed. This is serious and shocking and needs serious attention.

There should be policy intervention and programming. The government and for that matter Ghana Health service, and Tamale Metropolitan assembly should intensify breast cancer education and health care focussing on the '3 Ps' of prevention, protection and provision of care.

Secondly the capacity of the institutions should be improved through education and training for care providers and community health counsellors. Attitudes of health workers and care givers should be changed to provide friendly services to breast cancer patients. They should be enabled to minimise the stigmatisation and encourage people to have regular screening for early detection. In the short term, the National Health Insurance Scheme (NHIS) should be reviewed to provide health care and treatment for breast cancer patients.

In order to prevent complications, it is important for women to perform self-examinations, get regular mammograms, and maintain a healthy lifestyle, so that if the disease does occur there is optimal prognosis.

The study further recommended the theory of planned behaviour as a model for planning and implementing breast cancer education and awareness programmes to improve the outcome of the disease in Ghana. The women should be sensitised to report breast cancer cases to recognised medical facilities instead of prayer camps, native doctors/fetish priests etc, and should be made to understand that the disease is not caused by punishment for sin committed, curses by gods etc.

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