

## Socio-cultural and Economic Determinants of Delayed Reporting of Breast Cancer Among Ghanaian Women: A Qualitative Study

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### ABSTRACT

Delayed reporting of breast cancer continues to increase in African countries, including Ghana, which is attributable to socio-cultural and economic factors. However, there is a paucity of data on socio-cultural and economic determinants of delayed reporting of breast cancer in Ghana. This study aimed to explore the socio-cultural and economic determinants of delayed reporting of breast cancer among Ghanaian women. The study adopted an exploratory descriptive qualitative design with purposive sampling to recruit 17 women with breast cancer from the Tamale Teaching Hospital, Ghana. Data were collected through in-depth interviews. Analysis: Data analysis was done using the thematic analysis approach. Delayed reporting was due to inaccurate information, the influence of social networks, cultural misconceptions, belief in alternative treatment, high cost of treatment, and extreme poverty. A combination of socio-cultural and economic factors influences the delay in reporting breast cancer in Ghana. Culturally appropriate and adequate health information and education, integration of alternative treatment into the formal healthcare system in Ghana, and financial support from the government are needed to promote early reporting for treatment.

Keywords: breast cancer; delay reporting; determinants

### INTRODUCTION

Breast cancer remains one of the most frequent cancers among women globally. In 2020, breast cancer affected about 2.3 million women and caused the greatest number of deaths (68500) worldwide (Sung et al., 2021). While research suggests that breast cancer cases are higher in high-resource countries than in low-resource countries, the incidence rates of the disease are increasing across the globe (Hu et al., 2019).

In Africa, there is a limited number of national population-based cancer registries among the countries. However, the available data indicates that breast cancer is the second most frequent cancer and one of the leading causes of death among women (Sung et al., 2021). In Ghana, breast cancer is the most commonly diagnosed cancer among women and continues to increase among women below age 35 (Ferlay, Ervik, Colombet, Mery, & Pineros, 2020).

The stage of disease at the time of reporting, diagnosis and treatment affects breast cancer treatment outcomes and survival among patients. Breast cancer cases that are diagnosed and treated at early stages; I and II have higher chances of good treatment outcomes, compared to those that are diagnosed and treated at advanced stages; III and above (Sung et al., 2021).

However, there is a high incidence of delayed reporting of breast cancer globally (Ogunkorode, Holtlander, Ferguson, Anonson, & Ramsden, 2021). In Sub-Saharan Africa, a large number of breast cancer cases are reported to health facilities at advanced stages III and IV. Evidence suggests that over 50% of breast cancer cases in Ghana are reported and diagnosed at advanced stages with poor treatment outcomes and survival rates (Bonsu & Ncama, 2019).

Studies have been conducted in many countries in the world to understand factors that influence delayed reporting of breast cancer. For example, it has been reported in many quantitative studies that within Africa and other low-income countries, lack of awareness and education, poor health care systems, lack of National Screening Programmes, unhealthy cultural beliefs and poverty are widespread and determine the decision to report among breast cancer patients (Agodirin et al., 2020; Asoogo & Duma, 2015; Ogunkorode et al., 2021).

However, there is a paucity of data on socio-cultural and economic determinants of delayed reporting among breast cancer patients in Ghana. Therefore, this study examines the influence of sources of information, social networks, cultural beliefs, alternative treatment, and financial factors in delayed reporting of breast cancer among Ghanaian women.

## METHOD

### Study Type/Design

This qualitative study used an exploratory, descriptive design to explore the socio-cultural and economic factors that influence participants' decision to report breast cancer. An exploratory, descriptive qualitative design involves systematically collecting and interpreting textual material from interviews or observations to explore phenomena experienced by people in real-life situations, particularly about which little is known (Polit & Beck, 2014). The design can be used to explore and describe aspects of phenomena in nursing and other allied health professions and medicine. The design allowed the researchers to make follow-ups on emerging themes for in-depth information on socio-cultural and economic determinants of delayed breast cancer reporting.

### Study Setting

This study was conducted at the Tamale Teaching Hospital, Ghana from February to May 2021. The hospital was built in 1974 and is a 400-bed capacity referral Centre with a breast cancer clinic that serves as the main referral point for breast cancer cases in Northern Ghana. As a public institution, patients with an active membership of the National Health Insurance Scheme receive services that the Scheme covers without out-of-pocket payments except for services that are not covered or as non-insured patients (Akweongo, Aikins, Wyss, Salari, & Tediosi, 2021; Kusi, Hansen, Asante, & Enemark, 2015).

### Study Population

Participants were Ghanaian women with a confirmed diagnosis of breast cancer who could speak either English language, Konkomba, or Dagbani (native languages in Ghana) and were willing to share their experiences on how socio-cultural and economic factors determined the reporting of their breast cancer symptoms to the hospital for diagnosis and treatment.

### Sampling Technique

The study employed a non-probability, purposive sampling technique in recruiting the participants. All breast cancer patients who met the inclusion criteria were contacted through face-to-face interactions at the breast cancer clinic and telephone calls and those who agreed to participate and gave informed consent were recruited until data saturation occurred with 17 participants out of a source population of 31 breast cancer patients the hospital had on its register including, those on admission and outpatients at the time of recruitment.

### Inclusion and Exclusion Criteria

The study included women aged 18 years and above with a confirmed diagnosis of breast cancer, who reported to the Tamale Teaching hospital with an initial diagnosis of either stage III or IV breast cancer. However, the study excluded women aged 18 years and above with a confirmed diagnosis of breast cancer, who reported to the hospital at, stages I and II for not being delayed cases, and those in critical condition or unconscious state for not being able to give informed consent.

### Ethical Approval

The researchers obtained permission from the Tamale Teaching Hospital and explained the study to the staff of the breast cancer clinic for their cooperation and support before data collection. The Ghana Health Service Ethics Review Committee approved the study (GHS-ERC036/12/20) and the study also complied with guidelines and regulations on ethical principles for medical research involving human subjects, the Helsinki Declaration (World Medical Association, 2013).

### Informed Consent

The researchers obtained informed consent from all participants. The researchers explained the study to the participants in either in English language, Dagbani, or Konkomba (Ghanaian languages), including their right to opt-out at any stage of the study if they felt uncomfortable continuing. Patients who were willing and agreed to partake in the study were made to sign/thumbprint a prepared consent form before data collection commenced.

**Data Collection Procedure and Tool**

With the assistance of the medical staff, the medical records of patients who reported to the hospital with breast cancer (prospective participants) were checked to ensure they met the inclusion criteria. The researchers then interacted with the prospective participants directly and through telephone conversations and explained the study to them in English, Dagbani, or Konkomba (Ghanaian language). The researchers also read, explained and made the participant information leaflet available to the participants. The data was collected through interactive in-depth interviews within both the hospital and participants' home settings using a semi-structured interview guide with open-ended questions on sociocultural and economic determinants of delayed reporting, including: Could you tell me about your breast cancer experience? Can you explain what influenced your decision to go to the hospital? How much did financial issues matter in your decision to go to the hospital? Each interview lasted for 40 - 45 minutes and was audio-recorded with the approval of the participants. The researchers also took field notes during each interview to include non-verbal signs and researchers' reflections which generated rich data of 165 pages. The researchers transcribed the interviews verbatim in the English language for analysis.

**Data Analysis**

The data analysis was done concurrently with data collection to allow for paying attention to new emerging themes in subsequent interviews as the study progressed for in-depth information. The data analysis was done following the tenets of thematic analysis (Braun & Clarke, 2006). The researchers read and re-read transcripts carefully for good understanding. The data were then reduced into segments, generating initial codes. The researchers searched for themes by grouping codes that were similar to generate themes and subthemes. The researchers assigned pseudonyms to the participants and used those names in presenting direct quotations from the participants in the findings.

**Rigour**

The researchers checked the data with the participants after the data collection (member checking) for its accuracy and validity to ensure the credibility of the study. The researchers further described the methodology used for the study as they provided an evidence trail on the study design, data collection, and analysis to ensure the dependability of the results. The researchers described the study and its context in addition to maintaining participants' accounts in presenting findings to ensure its transferability. Also, detailed documentation of the study process (audit trail) was kept to ensure its confirmability (Ghafouri & Ofoghi, 2016; Loh, 2013).

**RESULT**

**Participants Characteristics**

Table 1. show that the participants were 17 female patients with a confirmed diagnosis of breast cancer. The age of participants ranged from 34 to 72 years. Two (2) participants were housewives and the rest were self-employed. The participants reported at the hospital at stages III and IV of their breast cancer. The duration of diagnosis of the participants' breast cancer (the period since the patient reported to the hospital) ranged between two (2) and 60 months.

Table 1. Homogeneity of the Control and Intervention Groups at Baseline Assessment

Participant ID	Age	Marital Status	Occupation	Educational Level	Ethnicity	Religion	Cancer Stage
BrCa1	39	Married	Housewife	No formal education	Dagomba	Christian	Stage III
BrCa2	34	Single	Hairdresser	Basic	Dagaaba	Christian	Stage IV
BrCa3	45	Married	Peasant farmer	No formal education	Dagomba	Muslim	Stage III
BrCa4	49	Divorced	Housewife	Basic	Dagomba	Muslim	Stage III
BrCa5	44	Single	Petty trader	Basic	Konkomba	Christian	Stage III
BrCa6	45	Married	Peasant farmer	Secondary	Dagaaba	Christian	Stage III
BrCa7	54	Married	Hairdresser	Basic	Dagomba	Christian	Stage IV
BrCa8	52	Married	Petty trader	Basic	Kassena	Christian	Stage IV
BrCa9	52	Divorced	Peasant farmer	No formal education	Mamprusi	Muslim	Stage IV
BrCa10	58	Married	Peasant farmer	No formal education	Kassena	Christian	Stage III
BrCa11	51	Married	Peasant farmer	Basic	Dagomba	Muslim	Stage III
BrCa12	56	Divorced	Petty trader	Secondary	Dagomba	Muslim	Stage IV
BrCa13	63	Married	Peasant farmer	Basic	Dagomba	Muslim	Stage IV

BrCa14	69	Widow	Petty trader	Secondary	Konkomba	Traditionalist	Stage III
BrCa15	66	Married	Peasant farmer	Basic	Mamprusi	Muslim	Stage III
BrCa16	69	Widow	Peasant farmer	No formal education	Dagomba	Muslim	Stage IV
BrCa17	72	Widow	Peasant farmer	Basic	Dagomba	Muslim	Stage III

### Themes and Sub-Themes

Two main themes; sociocultural factors of delayed reporting and economic factors influencing breast cancer treatment were identified with four and three sub-themes respectively.

#### 1. Socio-Cultural Factors of Delayed Reporting of Breast Cancer

The participants' sources of information, social networks' influence, cultural beliefs on causes of breast cancer and alternative treatment influenced participants' decision of reporting to the hospital for treatment. Some of the participants reported they received information on breast cancer from family members and the media. Some of the participants also sought advice from their significant others on their breast cancer symptoms and believed their breast cancer was caused by spiritual powers such as God as a form of punishment for evil deeds, and other people such as their rivals and enemies using gods and black magic (juju). Furthermore, the participants believed in alternative treatment (herbal/traditional and spiritual) for their breast cancer symptoms.

#### Sources of Information and Breast Cancer Reporting

The participants indicated that their family members were the common source of general and specific information on breast cancer. Particularly, they received information from their immediate family members such as their siblings and husbands who happen to be the first to know their signs and symptoms. Such non-expert information the participants received negatively influenced their decision to report their condition to the hospital:

*"One of my sisters told me that breast cancer is a family background sickness, so I had to go home to ask about it. I found that one of our aunties died with breast cancer and, so, I had to treat it the family way" (BrCa6).*

*"I showed my breast lump to my husband and he said it was a benign growth and that herbal treatment was good for such a sickness" (BrCa15).*

The participants further received information on breast cancer from other close associates who were mostly friends they trusted and confided in, concerning their breast problems for advice:

*"One of my friends came to visit me and said breast cancer is a serious sickness and that they will cut my breast if they want to treat it in the hospital" (BrCa14).*

Again, the mass media with radio and television being common was another major source of information for the participants on breast cancer:

*"People were talking breast cancer on a radio station in Tamale here in October last year. So, it was from that radio station that I heard of the breast cancer sickness" (BrCa7).*

*"I was watching television news when I heard about this breast cancer thing, and how it can kill women. So, I got information about breast cancer from the television" (BrCa1).*

#### Influence of Participants' Social Networks and Breast Cancer Reporting

The participants consulted their significant others such as their husbands, siblings and family heads on their breast cancer symptoms whose advice and opinions influenced their reporting to the hospital for treatment. Mostly, the participants were advised against hospital treatment as the first option for the participants' breast cancer symptoms leading to delayed reporting:

*"My husband asked me not to go to the hospital because the doctors may cut my breast. So, I did only the traditional treatment because I do not want them to cut my breast for my husband to leave me" (BrCa14).*

*"My brother is herbalist and when I consulted him about my breast problem, he said he could treat me. So, my brother was using his herbal medicine to treat me" (BrCa5).*

In addition, the participants' religious and spiritual leaders also advised and encouraged them to seek the healing powers and mercies of God/Allah for the healing of their breast cancer:

*"When I realized that my breast lump was becoming bigger, I told my pastor and he said I should continue to pray and have faith in God for my healing" (BrCa5).*

### **Cultural Beliefs and Breast Cancer Reporting**

Cultural beliefs and myths about the causes of breast cancer among the participants were evident as some of them believed their breast cancer was a spiritual sickness caused by supernatural powers or spirits such as God. These cultural beliefs influenced the participants' decision to report to the hospital for treatment:

*"I know that my breast sickness is a spiritual one because somebody caused it, the only problem is that I do not know the person" (BrCa5).*

*"This is one of the sicknesses God has given to me, and that is what God wants me to use and prepare myself and come home. That we are not in this world to remain forever; but that you are dust and unto the dust, you shall return" (BrCa6).*

Similarly, the participants expressed their strong belief that their breast cancer symptoms were caused by other people such as their rivals. They pointed out that their rivals who implanted evil spirits in money and transmitted those spirits to them to cause their cancer:

*"My rival put a spirit in one Ghana Cedi note and gave it to a child to buy earrings from my shop. So, as I collected that money with my hand, the spirit in the money passed through to my breast and caused the sickness" (BrCa13).*

Furthermore, the participants specified that their enemies used the gods and black magic (juju) to cause their breast cancer for various reasons:

*"People who hate me used their gods and juju to cause my breast sickness; they are trying all means they can to kill me, but my ancestors know that I have done nothing wrong against them" (BrCa14).*

In addition, the participants also believed and attributed the causes of their breast cancer symptoms to cultural myths such as a child coughing while breastfeeding:

*"My breast became big when I was breastfeeding my small boy, and it is because the child coughed while sucking my breast" (BrCa9).*

### **Beliefs in the Alternative Treatment and Breast Cancer Reporting**

The participants believed alternative treatment (traditional/herbal and spiritual) was a better option for breast cancer, consistent with their beliefs on its causes. The participants believed that due to the cultural and spiritual nature of breast cancer, traditional/herbal and spiritual treatments were the better first line of options for its treatment:

*"I went to a man of God for him to heal me of the breast sickness because breast sickness is spiritual, and I had to approach it that way first" (BrCa6).*

*"There is no disease that the Almighty God cannot treat. There is nothing God cannot do and I believe he will cure me" (BrCa6).*

Moreover, the participants in their conviction that breast cancer has cultural and spiritual undertones, coupled with strong beliefs in the potency of alternative treatment, engaged in alternative treatment (traditional/herbal and spiritual) for their breast cancer symptoms:

*"We have a local treatment that is better for breast sicknesses. There are some ants, they dig out some soil and that is what I was applying to my breast" (BrCa10).*

*"The traditional treatment I used was very strong because my breast was bigger than the way it is now. So, it is not like the traditional or herbal medicine is not good, it is very potent" (BrCa14).*



## 2. Economic Factors Influencing Breast Cancer Treatment

The participants made out-of-pocket payments for breast cancer treatment, despite low levels of financial resources (money) available to them. The participants, however, received some financial support for treatment from family members and non-governmental organizations. Under this theme, three subthemes were identified; cost of treatment, poverty/low income, and financial support.

### Cost of Treatment

The participants indicated that the amounts the hospitals charged for breast cancer services, particularly medications were on the high side, making it difficult for them to access the services:

*"I paid five hundred and sixty Ghana Cedis (one hundred and twelve dollars) for the treatment on the first day. Today too, I have to pay three hundred and fifty Ghana Cedis (seventy dollars) for the breast cancer injection which is very high" (BrCa16).*

The participants further revealed that the problem of the high cost of breast cancer services was compounded by the fact that the National Health Insurance Scheme did not cover a significant portion of the treatment cost. The participants made out-of-pocket payments for services such as medications, and diagnostic tests at the point they received the services:

*"The problem is that the breast cancer treatment is almost cash and carry. I need to have money at hand to pay before I can get the services. The National Health Insurance Scheme does not cover most of the breast cancer tests and medicines" (BrCa10).*

Also, the participants spent huge sums of money for transportation and lodging in their quest to seek breast cancer services. Most of the participants travelled long distances from their homes to the treatment Centre for breast treatment services. These long-distance travels increased the cost of their treatment, and led to a postponement of treatment appointments and defaults:

*"Apart from the payment for the drugs, the transportation cost to the hospital is very high. It is difficult to get money for both the transportation and treatment costs" (BrCa10).*

### Poverty/Low Income

More so, the participants were not gainfully employed and earned little or had no personal financial resources (money) to enable them to access health care for their breast cancer:

*"I did not have money to go to the hospital for my breast treatment at the beginning of the sickness. I was aware of this hospital, but I had no money to come" (BrCa9).*

*"My biggest challenge has been how to get money to come to the hospital for treatment because it is difficult for me to get money from my little farming" (BrCa8).*

### Financial Support from Family and Non-Governmental Organisations

The participants received financial support (money) from their husbands and children for their treatment costs. The participants believed those monies received from their immediate family members influenced their reporting at the hospital and the actual treatment:

*"It is my husband who is using his pension money to pay for my breast cancer treatment and buying of drugs" (BrCa7).*

*"I did not have money to come to the hospital, but my children looked for the money and brought me for treatment" (BrCa11).*

Furthermore, some of the participants received financial support (money) from non-governmental organizations such as Christian Convents and churches for their treatment:

*"Our Sisters' Convent and the church used its money to pay for my breast operation, and up to date, the Convent is still helping me with money for the treatment" (BrCa9).*

## DISCUSSION

The study gained insight into socio-cultural and economic determinants of delayed reporting of breast cancer among Ghanaian women. Breast cancer patients make decisions on what, how, when, and where to seek help for their symptoms based on the source and nature of information available to them within their social context (Bonsu & Ncama, 2019). This study found that the participants' sources of information on breast cancer were family members, friends, and the media. Largely, this non-expert advice or misinformation participants received about breast cancer negatively influenced their decision to report to the hospital for treatment. This finding corroborates the existing literature in Ghana and Botswana that breast cancer patients receive inaccurate information from family members and sometimes from the media (Bonsu & Ncama, 2019; Mbuka-Ongona & Tumbo, 2013). This finding further corroborates the existing literature in Singapore and Malaysia which indicates that women with breast cancer receive inaccurately and nonexpert information on breast cancer from family members and friends contributing to delayed reporting (Lim et al., 2015). This finding suggests the need for culturally appropriate and adequate information on breast cancer from health experts to the public to promote early reporting. It also implies that nursing practice in respect of breast cancer care must shift from conventional clinical care to health promotion activities, including education.

Additionally, the study revealed that influence from participants' social networks through information, advice and encouragement contributed to the delays in participants' decision to report to the hospital for diagnosis and treatment. This finding could be explained by the close social ties and the extended family system being practised in Ghana. Similar findings have been reported previously in Ghana, Mali and Ethiopia where social networks played a significant role in determining the timing and choices of treatment among breast cancer patients (Aziato & Clegg-Lampsey, 2015; Freitas & Weller, 2015; Jemebere, 2019).

This study also found that cultural beliefs about breast cancer among the participants delayed their reporting to the hospital as they believed breast cancer is a cultural and spiritual disease, caused by spirits, gods, enemies, or rivals. This finding supports the position of existing studies that there is a high level of cultural myths about breast cancer among women in Africa where the disease has been attributed to God and witchcraft (Aziato & Clegg-Lampsey, 2015; Bonsu & Ncama, 2019). This finding could be due to the strong cultural and spiritual perception of illness causes in Ghana (Asobayire & Barley, 2015). This finding means that nursing practice and care should be more culturally sensitive and specific in providing education and care to women with breast cancer.

In addition, the study found that the participants believed in the potency of alternative treatment and used the same for breast cancer, but it was not available in the hospitals, leading to delayed reporting. The existing evidence suggests that the use of alternative treatments for breast cancer is one of the main reasons for delayed reporting among women with breast cancer in Africa (Brinton et al., 2017; Odongo, Makumbi, Kalungi, & Galukande, 2015). Similarly, in Thailand and Malaysia evidence suggests that breast cancer patients see herbalists/traditional healers before seeking medical care for breast cancer symptoms (Chotipanich, Sooksrisawat, & Jittiworapan, 2019; Merriam & Muhamad, 2013). This finding of the study might be attributable to the strong beliefs in the potency and easy accessibility to herbal and traditional healers in Ghana which is rooted in their culture and tradition (Asobayire & Barley, 2015; Opoku, Benwell, & Yarney, 2012). The finding implies the need for future nursing research on the role of traditional/herbal and spiritual healers in breast cancer care and the possibility of their training and integration of their role into breast cancer detection programmes.

Furthermore, the study found that due to cost implications (high cost) for diagnosis and treatment for breast cancer, the participants postponed their visits to health facilities for treatment. The participants made out-of-pocket payments for services for a significant portion of the treatment cost due to low National Health Insurance Scheme coverage for breast cancer care. The participants' inability to afford the cost of treatment for breast cancer was compounded by the high cost of transportation to the treatment Centre. These findings could be explained by the high cost of treatment for breast cancer, coupled with low incomes and financial constraints among women in Ghana (Iddrisu, Aziato, & Dedey, 2019).

This finding is consistent with existing evidence in Ghana which indicates that the cost of cancer care is high. This is because the National Health Insurance Scheme coverage for cancer care is hugely inadequate (Asoogo & Duma, 2015). Similar challenges have been reported in Nigeria and Wales (Ibrahim & Oludara, 2012; McCutchan, Wood, Smits, Edwards, & Brain, 2016).

The high costs of treatment and transportation to the treatment Centre imply an urgent need for the government of Ghana to subsidize breast cancer care and ensure that the National Health Insurance Scheme covers the full cost of treatment for breast cancer. It also implies the need for nurses to scale up their patients' advocacy role for financial support for women with breast cancer.

Moreover, this study found a high level of poverty among the participants which influenced delayed reporting of breast cancer as some of them postponed their visits to the hospital for lack of money. Previous studies in Mali, Malaysia,

and Singapore suggest that some breast cancer patients deliberately avoid medical help because of poverty (Frie et al., 2018; Lim et al., 2015). This finding is consistent with the reports that low-income levels are common in Africa, especially, among women thereby leading to delayed reporting among breast cancer patients (Agodirin et al., 2020; Ogunkorode et al., 2021).

Also, the participants received financial support from their family members and non-governmental organizations for breast cancer treatment. This finding could be linked to the extended family system practiced in Ghana where problems of family members are shared. Similar findings have been reported in some African countries (Ibrahim & Oludara, 2012).

## CONCLUSION

This study revealed that non-expert information, social networks, cultural beliefs, alternative treatment, high cost of treatment and poverty influenced delayed reporting of breast cancer among Ghanaian women. The study highlights the sociocultural and economic nature of delayed reporting of breast cancer among women in Ghana.

Therefore, nurses must provide culturally appropriate and adequate health information and education on breast cancer to deconstruct cultural beliefs and misconceptions to promote early reporting. The government of Ghana should strive to integrate alternative treatment into the Ghanaian health care system to promote cultural acceptability and provide financial support to breast cancer patients through subsidies. Finally, nurses should increase their advocacy for financial support for women with breast cancer.

The study was conducted among women with advanced breast cancer (stage III and above) which could have influenced the findings.

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## Authors' contributions

EMY conceptualized the study, collected, and analyzed the data, and drafted the manuscript. MI participated in the design of the study, supervised the project, and reviewed the manuscript. LA participated in the design of the study, supervised the project, and reviewed the manuscript. KJ reviewed the draft and the final manuscript. All authors read and approved the final manuscript.

## Conflict of Interest Statement

The authors declare that there is no conflict of interest.

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