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Understanding the causes of breast cancer treatment delays at a teaching hospital in Ghana

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Abstract

Poor outcomes for breast cancer in Ghana have been attributed to late presentation of symptoms at biomedical facilities. This study explored factors accounting for delays in initiation of breast cancer treatment at the Korle-Bu Teaching Hospital in Accra. Focus group discussions were conducted with 20 women with breast cancer. A theory-driven thematic analysis identified three multilevel factors influencing treatment seeking delays: (1) patient (e.g. misinterpretation of symptoms, fear), (2) healthcare provider (e.g. negative attitudes) and (3) health systems (e.g. shortage of medicines). Addressing treatment delays will require multilevel interventions, including culturally congruent education, psychosocial counselling/support and strengthening health systems.

Keywords

breast cancer, Ghana, healthcare provider attitudes, healthcare systems, illness perception, treatment delays

Background

Research has shown high morbidity and mortality of breast cancer in Ghana (Atobrah, 2013; Wiredu and Armah, 2006). Even though early breast cancer diagnosis and treatment at a pre-symptomatic phase are associated with prolonged survival, the majority of breast cancer patients in Ghana present late (Bish et al., 2005; Richards et al., 1999) with 52 to 85 per cent presenting with advanced disease (Clegg-Lamptey and Hodasi, 2007; Ohene-Yeboah and Adjei, 2012).

Studies have shown that longer delays to the start of breast cancer treatment are associated with worse survival rates (Ohene-Yeboah and Adjei, 2012; Richards et al., 1999). Total delay has been defined as the time between a patient's discovery of symptoms and start of definitive treatment in a health facility: total delay is a product of patient and provider/treatment delay. Treatment delay can be attributed to both

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patient factors and health system factors. Similar to other chronic non-communicable diseases (NCDs), such as diabetes and hypertension, there are many barriers to timely treatment of breast cancer.

Several studies have been conducted on various aspects of breast cancer in Ghana, including patient delay that explores the causes of delay in seeking initial treatment (Atobrah, 2013). But there is presently no study which examines patients' perspectives on the causes of delay in start of treatment between first presentation at the hospital for diagnosis with breast cancer and the start of definitive treatment. As part of a large-scale hospital-based study of patients who have started treatment for breast cancer at the Korle-Bu Teaching Hospital (KBTH), Accra, this study explored the patients', healthcare providers' and health systems' factors which accounted for delay in start of definitive treatment, using a qualitative approach. In this study, delay was defined as the time interval (and factors responsible for that interval) between presentation to hospital and start of definitive treatment for breast cancer.

Methods

Data were gathered using focus group discussions (FGDs) to examine the structure, process and outcomes of social communication in order to gain insight into 'how knowledge, and more importantly ideas, develop and operate within a given cultural context' (Kitzinger, 1995). Four FGDs were carried out with patients receiving treatment from the general surgical wards and outpatient clinics of the department of surgery, and the breast clinic of the National Centre for Radiotherapy and Nuclear Medicine, KBTH.

Participants

Participants were recruited using purposive sampling from the general surgical wards, outpatient clinics and the breast clinic of the National Centre for Radiotherapy and Nuclear Medicine at KBTH. The fieldwork was carried out between August and September 2013. The first phase of the fieldwork was a survey where 205 consecutive breast cancer patients starting treatment at the study sites were recruited (Dedey et al., 2016). After the survey, we followed up some of the patients by calling them on their mobile phones to request their participation in an FGD to gather more nuances and in-depth information on the causes of delay in start of definitive treatment. We were able to approach 31 patients at this stage and 11 of them declined. Once participants had agreed, we set up their interview dates and they were placed in groups based on their clinic days. The FGDs were conducted in English and Twi by trained field assistants. The duration of the group discussions ranged from 1 hour, 30 minutes to 2 hours, 30 minutes and permission was sought from the participants to record all discussions. Ethical approval for the study was obtained from the Ethical and Protocol Review Committee of University of Ghana Medical School.

Furthermore, all participants were remunerated for participating in the study. Each participant was given GH20 (US$9.67) as transport allowance. Two pre-defined key areas were explored in this study: (1) general life history and (2) patients, healthcare providers' and health systems' causes of delay in start of breast cancer treatment. Questions asked during the FGDs are provided in Supplemental Box 1.

The profiles of the breast cancer patients are presented in Table 1 and Supplemental Table 1b.

Data analysis

The data analysis was conducted after all the interviews were transcribed. All interviews were transcribed verbatim from Twi to English language by a team of transcribers with Twi and English language competence. We analysed the data using thematic approach (Attride-Stirling, 2001). The analysis was guided by a coding frame with two sections: (1) a section on pre-existing deductive codes derived from previous studies on causes of delay in breast cancer treatment and (2) an open-ended section of

Table 1. Socio-demographic details of respondents.

Characteristics	FGD 1 ($n=5$)	FGD 2 ($n=5$)	FGD 3 ($n=4$)	FGD 4 ($n=6$)	Total ($N=20$)
Age (years)					
<40	0	1	0	1	2
40–49	4	2	1	1	8
50–59	1	1	2	2	6
60+	0	1	1	2	4
Level of education					
No education	0	1	0	1	2
Primary	2	0	0	0	2
Middle/JHS	2	2	0	0	4
Secondary/JHS	1	1	1	1	4
Tertiary	0	1	3	0	4
Missing	0	0	0	4	4
Marital status					
Currently married	5	4	2	5	16
Widowed	0	0	2	0	2
Separated	0	1	0	1	2
Religion					
Christianity	5	5	4	0	14
None	0	0	0	1	1
Number of children					
0	0	1	0	2	3
1–2	1	1	3	1	6
3–4	2	2	1	0	5
5+	1	1	0	1	3
Missing	1	0	0	0	1
Occupation					
Unemployed	0	1	1	0	2
Trader	5	2	0	3	11
Others	0	2	3	2	7
Ethnicity					
Akan	2	1	3	3	9
Ewe	3	0	0	2	5
Ga	0	3	0	1	4
Others	0	1	1	0	2
Median time (in weeks) from presentation to start of treatment					
<4	0	1	1	2	4
4–12	4	1	2	2	9
12+	1	2	1	2	6
Missing	0	1	0	0	1
Disease stage					
I and II	5	5	3	0	13
III and IV	0	0	1	6	7

FGD: focus group discussion; JHS: Junior High School.

inductive codes derived from the lived experience of the participants.

The study by Freitas and Weller (2015) on 'patient delays and systems delays in breast cancer treatment in developed and developing countries' and the review of breast cancer research in Ghana by Atobrah (2013) guided the selection of the deductive codes. Deductive codes derived from the reference studies included financial constraints; non-attribution of symptoms to cancer; and fear of disease, treatment adverse effect and chemotherapy. Deductive codes for healthcare provider and health system factors were derived from key elements of the World Health Organization (WHO) health systems' building blocks (service delivery, health workforce, information system, medicines, financing and leadership/governance; Coast et al., 2016) and the application of this framework to cancer care in Africa (Adeloye and Grant, 2016). Using the principle of constant comparison, the emerging themes were compared against each other to describe the depth and coverage of themes across transcripts. We paid critical attention to consensus, conflict and absences across group and individual narratives (de-Graft Aikins, 2005).

The second stage of the analytical framework involved drawing linkages between codes, themes, appropriate respondent quotes, existing empirical studies and conceptual ideas from social representation theory (de-Graft Aikins, 2005) and explanatory models of illness (Kleinman, 1980). The concepts of social representation and explanatory models shaped the interpretive analysis because we were interested in the sources of knowledge and how sources influenced practical responses on treatment. At the interpretive stage, we recategorised some of the themes mentioned by participants, partly informed by convergent and divergent themes from existing studies. For instance, participants reported different dimensions of fear; we highlighted the different levels through which fear operated so that we could identify the extent to which this theme aligned with existing studies that had reported fear as a barrier to start of definitive treatment.

Results

The results focus on causes of delay in breast cancer treatment.

Causes of delay in breast cancer treatment

Causes of delay in breast cancer treatment are presented under three broad categories: (1) patient factors, (2) healthcare provider factors and (3) health system factors. All the categories were examined from the patients' perspectives.

Patient factors

The participants attributed their causes of delay in start of definitive treatment to four main themes: (1) spiritual causal theories of breast cancer, (2) fear, (3) financial constraints and (4) seeking alternative treatment.

Spiritual causal theories of breast cancer. A major cause of delay in start of definitive treatment was spiritual causal theories of breast cancer. Participants attributed the causes of breast cancer to spiritual causes such as witchcraft, breastfeeding in dreams and consequence of one's sin. These theories influenced their decision to seek spiritual help before starting biomedical treatment:

> *Up until now, I think it is a satanic disease because before it happened, I was at a Christian gathering where the Pastor said that if you have a dream and a child is sucking your breast it means you are being given breast cancer. At the time, I listened but I did not believe it completely. I used to have such dreams a lot*. (FGD 4-R1)

> *I thought I was being bewitched; in my case I had no dream but by all indication I know I had been bewitched by family members. Because immediately after my engagement, my mother said one of my aunties kept asking if I had become pregnant*. (FGD 1-R2)

Fear. Fear was another dominant cause of delay in start of treatment; this was mentioned and

discussed by all the participants. The different targets of fear mentioned by the participants included fear of mastectomy, breast damage, surgery, perceived trauma from the treatment and KBTH:

> *... there was indeed that fear but when I was admitted here, I realized that there was nothing to be afraid of. But what really scared me was the surgery; okay, so when you had to come to Korle-bu you cried, and when you had to come for surgery too you cried again*. (FGD 1-R5)

> *I'm always afraid of things ... when you are admitted at Korle-bu, it's like you're as good as dead; I'm scared of everything about Korle-bu. When I had to come here, I cried a lot ...* (FGD 1-R2)

> *... the first time I was scared because I don't normally come to Korle-bu. They only deal with serious issues so then ... it was serious if you were sent there. So you see that anytime I am coming, then my B.P goes up, because I didn't know what to expect next*. (FGD 3-R1)

Fear was also driven by the perceptions of women's significant others. There was a common perception that mastectomy damaged 'female identity' or 'ideal womanhood'. Women were advised against the procedure, as a result. These perceptions intensified the fear women felt about cancer and prevented them from seeking definitive treatment:

> *… some noted that as a woman, if your breast is removed then it is your sure ticket to death ... these are some of the things people say to dissuade others from seeking early medical attention …* (FGD 1-R3)

> *some people told my husband that I should not undergo the surgery ... he said that if I undergo the surgery I would die in a year's time*. (FGD 1-R2)

Financial constraints. Many of the patients mentioned lack of finances as a major barrier to start of definitive treatment. This is another major theme which emerged from the narratives of all the participants and this cut across different educational and socio-economic status. Most participants struggled to pay the high cost of chemotherapy, pharmaceutical drugs and other associated costs of breast cancer treatment:

> *The chemo is expensive. The trauma and money you spend too is a problem. If you do not have at least 200 Ghana cedis, you cannot buy the drugs. When someone hears all these, the individual would opt for herbal medicine or prayer. So as for me I think that lack of money is a factor. I paid 1000 Ghana cedis to use the chemo machine. If you do not have money you would go home. So money is a serious factor*. (FGD 4-R1)

Alternative treatment. Participants also attributed their delay in start of definitive treatment to seeking alternative treatments such as herbal treatment, faith healing and practice of lifestyle modification treatment after confirmation of diagnosis. Based on the narratives of some of the participants, seeking alternative treatment was not only driven by faith in alternative treatment but also by the high cost of biomedical treatment:

> *… there was a little sore on my breast and my breast swelled up and we took it to the hospital and I was diagnosed with breast cancer. We tried treating it there but the amount we were charged was too much and we could not afford and we stopped the treatment at the hospital and we started using herbal medicine. The situation worsened and the whole breast became sore and we then decided to come to Korle-Bu*. (FGD 2-R3)

Furthermore, the participants' narratives indicate that religious leaders contributed to delay in start of definitive treatment. Some participants were associated with pastors who encouraged them to use faith healing instead of seeking biomedical treatment:

> *… the pastors contribute to the delay in response time to treatment medically. They tell people that they can pray for the disease to melt away. Your faith also tells you that they can do it so after the prayers, you sit back knowing and believing that*

you are healed, but that might not exactly be the news. (FGD 1-R4)

… I did not tell anyone, except my husband and the people I pray with. I always say my faith is that God can cure me ... this is what is happening so pray with me ... There is this pastor friend who said Ok, some went through chemo and also, other people used herbal medicine and are fine, he also said he knew others too that used bio-med and are also fine, therefore if it is my faith that prayer can heal me I can go ahead and pray. (FGD 2-R2)

Participants also sought alternative treatment because they believed in it and because the health workers advised them to do so. The narratives of the participants suggested that aggressive campaigning by the herbal industry was driving engagement with alternative herbal treatments:

… some prefer herbal medicine because there is a lot of noise being made about these herbal centres. (FGD 1-R1)

… there are nurses who even tell you that they know a herbalist who can put some cream there and it will melt. They ask you whether you want your breast to be lacerated. (FGD 3-R3)

Healthcare provider factors

Participants mentioned that healthcare providers also contributed to the delay in start of definitive treatment. The healthcare provider factors which accounted for delay in start of definitive treatment included the following: (1) the healthcare workers' attitude, (2) corruption among the healthcare workers and (3) wrong/harmful advice from healthcare workers. The dominant healthcare provider factor mentioned and discussed by the majority of the participants was poor attitude of the health workers. Patients stated that some of the healthcare workers were rude to them or refused to answer their questions and did not treat them well and this forced them to delay start of treatment or stopped treatment for some time. In addition, participants mentioned that some of the health workers are corrupt because they give preferential treatment to patients who they know:

The record staff are not too nice. There is one particular lady who calls the name and expects you to hurry from wherever you are to come for your own card. You see some of us are very sick and others very old so it will take time but when a little time elapse after she has called your name and you get there, she shouts on you and all that and is not nice. So for the medical staff there is no problem with them but for the record staff they are not nice. You would even like to ask them a question but they will not be bothered. (FGD 3-R3)

… I would say that for the lab, they keep to their time and date. When you go, the results would be ready but you would have to wait a while. The problem with the lab attendants who are to bring the reports out would be sitting behind their computers and be chatting. We the patients would have to queue up. When names are mentioned, the attendants do not speak audibly. When you ask a question, they would shout at you and ask you if you did not hear them as they were calling out the name. At certain times, waiting to receive the lab report is a matter of who you know. Someone who has not joined the queue would just walk in and be served immediately because the person knows someone who works in the lab. If you don't know anybody working in the lab you would have to queue. (FGD 4-R2)

Furthermore, participants said that healthcare workers give wrong/harmful advice to patients by encouraging them to seek alternative treatment, and this eventually causes delay in start of definitive treatment:

… there are nurses who even tell you that they know an herbalist who can put some cream there and it will melt. They ask you whether you want your breast to be lacerated. (FGD 3-R3)

Health system factors

The health system factors that led to delay in treatment, as narrated by the participants,

include the following: (1) long queues during treatment, (2) unavailability of doctors, (3) breakdown of hospital machines, (4) shortage of medicines, (5) workload of doctors, (6) shortage of healthcare workers, (7) slow moving queues at the drug dispensary and (8) long distance between departments involved in breast cancer treatment within the hospital premises. Some of the participants mentioned that the structure of breast cancer treatment at KBTH contributed to the delay. Treatment facilities were located at different places within the hospital premises, and this made it strenuous for patients to access these facilities. The dominant theme for the health system's delay, mentioned and discussed by many of the participants, was delay of biopsy results from the Pathology Department:

> *I think I agree with them, doing lab here and there makes the whole process very tiring so if we get everything here, we will be happy. Because sometimes, after the whole thing, you seem to be overused and stressed and I always feel dizzy. If cancer patient would have a sort of special treatment, that would be good*. (FGD 3-R1)

> *After my first surgery the red house (Pathology Unit) delayed my lab results too much. It made me restless and worried because I didn't know whether I was making progress or not; Whenever you go to the lab, it will take months before you get the results. So whether it is because the machines are not much or because the equipment is inadequate, I can't tell. The difference between this one and the one from South Africa is that, the one from South Africa comes early whiles this one does not*. (FGD 3-R1)

Recommendations on how to reduce delay in start of treatment

The recommendations on how to reduce delay in start of treatment at KBTH are based on the narratives of the participants. The participants were asked to suggest ways to reduce delay in start of breast cancer treatment. The narratives of the participants were thematised based on the WHO health systems' building blocks and these focused on the following: (1) health service delivery, (2) health workforce and (3) financing. We present these themes in Supplemental Table 2, highlighting the spread of views across groups.

Discussion

This discussion focuses on the three factors driving delay in start of breast cancer treatment: patients, health professionals and health systems.

Patient factors

The dominant patient factor for causes of delay in start of breast cancer treatment among the participants was fear. Fear has also been identified in several studies as one of the most dominant causes of delay in start of breast cancer treatment in high-income countries, and low- and middle-income countries (LMICs; Crowley et al., 2014; Freitas and Weller, 2015; Innos et al., 2013). Fear operated at multiple levels of analysis: the level of self (changed body), the level of intimate and socially significant relationships (changed identity as a woman), the level of macro-structure (fear of KBTH) and the level of the supernatural (fear of the spiritual causes of cancer). There is a need to identify the multi-faceted (subjective, material and symbolic) targets of women's fear in order to develop appropriate psychosocial counselling and support.

Another major cause of participants' delay in start of treatment was financial constraints. Financial constraints as a cause of patient delay have also been cited in other studies (Atobrah, 2013; Barros et al., 2013; Dedey et al., 2016; Ermiah et al., 2012; Quaife et al., 2014; Sharma et al., 2013). High cost of biomedical treatment forced some of the participants to seek alternative sources of healing which resulted in delay in start of treatment. The economic downturn in Ghana, coupled with high cost of living, makes it difficult for most families to meet their day-to-day needs; chronic illnesses such as breast cancer often introduce catastrophic healthcare

expenditures within this context (de-Graft Aikins et al., 2014; Tagoe, 2012). Participants struggled to pay their cancer care costs. Those who had health insurance, still had to pay out-of-pocket at the point of healthcare delivery because many of the breast cancer treatments were not covered by the National Health Insurance Scheme (NHIS). Experts observe that NCDs send patients and their families down a poverty spiral, particularly in LMICs where 60 per cent of healthcare is financed out-of-pocket, compared to 20 per cent out-of-pocket expenses in high-income countries (Coast et al., 2016; Quaife et al., 2014; Richards et al., 1999). Local experts have advocated the need for an NCD-competent NHIS – a restructured system with an expanded remit to cover the comprehensive treatment needs of a growing number of Ghanaians living with cancers and other chronic conditions (de-Graft Aikins and Koram, 2017). This will reduce the financial burden of care on individuals and families, as well as the associated psychosocial burdens.

Some of the participants in this study thought that breast cancer has spiritual causes. As a result, some of them sought alternative treatment which ended up delaying the time they started definitive treatment at KBTH. Some studies have also reported seeking of alternative treatment as a cause of delay in start of treatment (Freitas and Weller, 2015). Other reasons given by participants for delay in start of treatment were spousal and family restrictions. Socio-cultural systems, as well as theories of disease and illness, especially in African settings, have been known to influence decision for seeking medical treatment especially in females (BeLue et al., 2009). It has been reported that major decisions on women's health and wellbeing are usually taken by the husband or family member who determines whether it is appropriate to seek medical help based on their own beliefs, knowledge of the disease and financial status (Ohashi et al., 2014). The narratives of the participants in this study suggest that some of the women delayed start of definitive treatment due to the advice given by their significant others (e.g. husbands, sisters and other valued family members).

Healthcare providers' and health systems' factors

The healthcare provider and health system delay were examined through the WHO health systems' building block framework. With regard to service delivery, this study showed that many of the patients did not have access to quality treatment due to the poor attitudes and corrupt practices of the healthcare workers. Associations have been made between Ghana's weak health system and recurring trends in corrupt health worker practices (de-Graft Aikins and Koram, 2017). Corrupt practices entrenched inequitable access to breast cancer treatment at KBTH. Some of the participants were able to utilise the healthcare service faster than others because they attracted the favour of the healthcare workers either through bribery or leveraging their personal relationships with the healthcare workers. Other factors that hindered quality health service delivery included location of treatment facilities at different places within the hospital premises and long queues during treatment.

With respect to the health workforce, the participants mentioned shortage of healthcare workers as an impediment to receiving quality treatment. The number of breast cancer specialists at KBTH is very few to handle the influx of breast cancer patients and this contributed to delay in start of treatment. An effective way of addressing this may be using a task-shifting approach to train physicians in breast cancer care so as to increase the number of health professionals who can deliver this care (Adeloye and Grant, 2016).

With respect to medical products and technology, the participants mentioned delay in biopsy results from Pathology Unit as a dominant cause of health system delay in start of treatment. This factor had been reported to be a major determinant of delay in start of definitive treatment at KBTH (Dedey et al., 2016). In addition, intermittent breakdown of machines

at the hospital due to power fluctuations and occasional delays in dispensing chemotherapy drugs are issues that are of concern to the country as a whole. With improvement in electricity supply to KBTH, subsidisation of cost of chemotherapy drugs and tax exemption on drugs, the above problems may be minimised (Vanderpuye and Yarney, 2014).

With respect to recommendations on how to reduce delay in breast cancer treatment, the suggestions of the participants focused broadly on health service delivery, health workforce and financing. The other components of the health system – information and leadership/governance – emerged as implicit concerns. For example, the lack of cancer education was implicated in low levels of awareness and understanding of breast cancer systems. This may be a product of poor investment in health information systems. The chronic problem with the operation of the Pathology Unit may also be a product of poor leadership and governance at the hospital.

The main limitation of this study was that the number of participants included in the FGDs was very limited. We could not gain access to more survey participants and we did not receive consent from all the 31 participants who we did reach. Despite this limitation, meaning saturation was reached on the majority of the discussion themes. As a result, the nuanced multi-level factors our participants outlined relating to causes of delay in start breast cancer treatment can inform larger-scale qualitative and quantitative studies and interventions in similar contexts.

Conclusion

This study showed that there were different causes and modalities of delay in start of definitive treatment for breast cancer and this included patients', healthcare workers' and health systems' factors. Reducing delays in breast cancer treatment at KBTH will require multi-level interventions which target these tripartite factors. Interventions should include the following: public education (and education of health workers) on causes and symptoms of breast cancer, including messages that deconstruct harmful cultural beliefs; psychosocial counselling before and during definitive treatment; and strengthening health systems in the areas of health service delivery (localisation of breast cancer treatment units at KBTH), health workforce (improving health professionals' attitudes, ethical conduct, welfare and diagnostic, and treatment timelines) and financing (advocating for an NCD-competent NHIS).

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Supplemental material

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