



Ghanaian women's perception on cervical cancer threat, severity, and the screening benefits: A qualitative study at Shai Osudoku District, Ghana

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ABSTRACT

Objective: Cervical is one of the topmost causes of fatalities worldwide with mortality and incidence rates highest in sub-Saharan Africa including Ghana. The knowledge about cervical cancer threat and severity has not been extensively studied in most developing and developed countries of which Ghana is not exempted. The study, therefore, aimed to explore the views of women about cervical cancer threat, severity, and the benefits of cervical cancer screening in rural communities in the Greater Accra Region of Ghana.

Study design: Qualitative exploratory descriptive design was used to purposively sample 17 participants.

Methods: The data collection tool was pretested among 4 women from women to ensure its trustworthiness. Participants were interviewed face to face using a semi-structured interview guide. The interviews were recorded with audio recorders, transcribed verbatim and content analyzed. Ethics approval was obtained from Noguchi Memorial Institute for Medical Research Institutional Review Board (NMIMR-IRB).

Results: Findings of this study discovered that participants perceived Cervical cancer (CC) as serious on the basis that it is causing death of most women and lead to depression, isolation and thoughts of suicide, and poor sexual performance. Almost all the women in this study were aware that cervical cancer screening (CCS) is beneficial in the early detection of cervical cancer and protecting women against cervical cancer in order to reduce the mortalities associated with cervical cancer. In conclusion, there is high perceived severity to CC and benefits of CCS and hence other studies could be done to assess the uptake of the screening and willingness to participate in the screening among these participants. It is expected that this high perceived severity and benefits will translate into their practices of CCS and hence other researchers could explore this phenomenon.

1. Introduction

Cervical cancer is one of the topmost causes of fatalities amongst gynecological cancers worldwide [1]. Mortality and incidence rates of cervical cancer are highest in sub-Saharan Africa, Southeast Asia, Latin America, the Caribbean, and Central and Eastern Europe [1]. Cervical cancer has been identified as the leading cause of death among cancers affecting women and about 9 out of 10 women who develop cervical cancer in less developed countries die [1–3]. Furthermore, in less advanced countries, cervical cancer is diagnosed to be common and ranks second among all cancers [4–7]. The World Health Organization (WHO) has predicted that 5000 new cases of cervical cancer would be diagnosed and 3361 lives would be claimed in Ghana as a result of cervical cancer [1,8,9].

Cervical cancer is a problem of increasing magnitude in developing

countries and the most common cancer affecting women in Ghana [10]. Even though the population of people living in Kumasi is higher than that of Accra, that is 4.7 million and 4 million respectively it was established that the incidence of cervical cancer in Ghana is higher in Greater Accra Region where this study was conducted than the Ashanti Region [10].

Despite this, there are evidence that cervical cancer screening (CCS) in developed countries has reduced mortalities associated with cervical cancer in women who go for screening early [11,12]. Cervical cancer can be detected through cervical cancer screening. It is preventable by screening for lesions at initial stages before becoming cancerous [1, 13–15]. Studies have reported that more than half of their participants are aware of cervical cancer screening benefits [16–18]. Screening for cervical cancer has been linked with a significant reduction of fatalities associated with it in developed countries due to early detection of the

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condition [19]. Moreover, the rate at which cervical cancer affects women can be reduced by encouraging women to partake in regular CCS exercises [20–23]. Hence to prevent pre-cervical cancer from becoming invasive, one needs to engage in screening and other preventive treatment modalities [24]. Sadly enough, it is seldom provided and rarely utilized by women [17].

In Ghana, a study reported that it was beneficial to engage in Pap smear screening for cervical cancer [23]. The majority of the participants in this study were of the view that cervical cancer prognosis will be better if detected early, and a majority believed that treatment will be easier if detected early through screening. Based on this, studies have proposed the need for health workers to discuss cervical cancer screening and its benefits with their patients [14]. Nevertheless, even though, cervical cancer screening methods (Pap smear test and visual inspection with acetic acid) are available at public and private hospitals in Ghana to help reduce the incidence of cervical cancer, only 2.7% of Ghanaian women obtain cervical screenings regularly [25].

There are myriads of beliefs on cervical cancer and cervical cancer screening in both developed and developing countries. For instance, In the U.S. Affiliated Pacific Island Jurisdiction, women believed that protecting themselves from getting cervical cancer is a health priority (90.3%) and the same percentage indicated that the Pap test for CCS was the participants' preferred test [26]. That study further revealed that 77.8% of their participants have a positive perception of seeking cervical cancer screening. However, most Hispanic women are of the belief that cancer cannot be cured, and a diagnosis for this illness is tantamount to a death sentence [20].

Family history was found by some authors to be significantly linked to cervical cancer. In addition, the authors discovered that age, health insurance status, and smoking status were associated with recent Pap tests [27]. Higher educational levels and being single were also found to influence cervical cancer screening uptake by some researchers [28]. They further concluded that women who take up screening more are the aged, cognizant about cervical cancer and screening and unlikely to capitalize on CCS barriers.

The phenomenon of the perceived risk of cervical cancer has been extensively explored [29–31]. However few studies have been done on cervical cancer threat, severity and cervical cancer screening benefit in developed and developing countries. In Ghana, most studies on CC and CCS addressed knowledge, barriers, risk factors, and experiences with scarce literature on severity and threat [32–34]. It is, therefore, necessary to explore the perceptions of women regarding cervical cancer severity and benefits as well as the health beliefs of women regarding cervical cancer screening to address this issue. The aim of this study was to explore the views of women about cervical cancer threat, severity, and the benefits of cervical cancer screening.

2. Methods & procedures

2.1. Research questions

The following are the research questions.

- What are women's perceptions about cervical cancer threat?
- What are the perceived severity of cervical among women?
- What are the perceptions of women of cervical cancer screening benefits?

2.2. Research design

The researchers used an exploratory descriptive qualitative research design to explore the views of women about cervical cancer threat, severity, and the benefits of cervical cancer screening. This design allowed the participants to share their opinions on cervical cancer severity and the benefits of cervical cancer screening from participants' own point of view. The qualitative approach aided in collecting

subjective views of the participants to help better understand the phenomenon under study.

2.3. Sample size & technique

The sample size was 17 women from Shai Osudoku District who gave in-depth information on the phenomenon. The participants were recruited until data saturation was reached. Data saturation is the process whereby qualitative researchers continue with data collection until no new information is shared by participants. Doing this helps to ensure the richness of the data collected. A purposive sampling technique was used to select participants. This technique even though does not allow random selection is based on the researchers own judgment to ensure participants who met the inclusion criteria was selected in order to provide rich data for this study.

2.4. Data collection

A semi-structured interview guide developed by the study authors was designed based on the study objectives to elicit participants' experiences. Following the verbal and written consent obtained from the participants, the researchers conducted a face-to-face in-depth interview within 4 weeks after ethical clearance was sought from the Noguchi Memorial Institute for Medical Research Institutional Review Board (NMIMR-IRB) of the University of Ghana (NMIMR-IRB 036/18–19). Women residing in the Shai Osudoku District in the Greater Accra Region of Ghana, 18 years and above, who could express themselves in Twi (Local dialect), or English, or Ga-Adangbe, and were willing to participate in the study were recruited. Characteristics such as marital status were not used to exempt some participants in order to ensure representativeness of sample. Interviews were done by the study authors and lasted for 45–60 min at preferred convenient places to the participants. All interviews were audio-recorded.

2.5. Data analysis

The analysis of data was done by the researchers of the study. The quality of the data analysis was ensured by transcribing all the audio-recordings verbatim without manipulating results, pretesting the interview guide among 4 women from Oyibi community which is also a rural community in the Greater Accra Region of Ghana, and giving the interview guide and the manuscript to other colleague researchers to peer review. Data collection and analysis occurred concurrently. Data were content analyzed to help in the generation of themes and sub-themes. Content analysis is the process of transforming a large amount of text into a highly organized and concise summary of key results [35].

The study data went through the four main processes in content analysis; familiarization, condensation, coding, and categorization. With this, the researchers first read through the transcribed documents severally to acquaint, understand and emerged themselves into the data. The data was then condensed by identifying and sorting the meaning of the content into similar units. This was done carefully so as not to lose the meaning of the participants. Coding was then done by labeling and organizing the condensed data to identify different themes, following which similar themes were grouped together by the process known as categorization. In all, 2 themes and 7 sub-themes were developed. Each participant was assigned a pseudonym such as; Akua, Ama, Adwoa, Yaa etc.

The trustworthiness of this study was maintained by the following; credibility, dependability, conformability, transferability, and authenticity [36]. This was maintained by obtaining ethical clearance for this study, ensuring verbatim transcription, pretesting the data, ensuring that the whole study was based on the study objectives, ensuring participants met the inclusion criteria and describing the data collection tool, sampling technique, method and data collection procedure.

3. Results

3.1. Socio-demographic characteristics of participants

Participants recruited for this study were 17 females who had no medical evidence of cervical cancer. The participants of this study were within the age range of 22–45 years. Majority of the participants (n = 11) was below 30 years. These women were selected from various churches, schools and market places in the district. Regarding their marital status, ten (10) of the women were married whilst seven (7) were single. Participants selected spoke in Twi and English dialect during the data collection. Almost all the participants, sixteen (n = 16) spoke English whilst one was interviewed in Twi. Fifteen (15) participants had some formal education with only one pursuing her master's degree. Details of the socio-demographic characteristics of the participants are shown in [Table 1](#) (Appendix A).

3.2. Organization of themes and subthemes

Two (2) themes and 7 subthemes resulted from the data analysis. See details in [Table 2](#).

3.3. Perceived severity and the threat of CC

Perceived severity and threat deals with how serious or severe women view cervical cancer. Participants narrated that CC is serious because it can lead to death of the women affected, cause depression, affect sexual function of women, cause women to be infertile and finally cause some women to isolate themselves from people or people to neglect the individual.

3.4. Depression and anxiety

Depression and anxiety are experienced by most women who contract life-threatening illnesses of which cervical cancer is not exempted. Participants shared their diverse opinions concerning the severity of cervical cancer by recounting that most women who have cervical cancer feel extremely sad and depressed. According to participants, women with cervical cancer become depressed due to the fact that cervical cancer cannot be cured, it can cause divorce, and cause a woman to spend all her money on the treatment. The following statements depict what some participants have to recount about depression:

Table 1
SOCIO-DEMOGRAPHIC characteristics of respondents

Variable	Frequency (n = 17)	Per cent (%)
Age group		
18- 22-30	11	25
21- 31-40	2	10
22- 41-45	3	15
26- 46-and above	0	50
Religion		
Christian	15	85
Muslim	1	15
Traditionalist	0	0
Occupation		
Government worker	4	50
Self-employed	2	50
Students	8	0
Not working/Housewives	3	0
Marital Status		
Single	7	20
Married	10	65
Widow	0	15
Educational status		
Primary	5	25
Secondary	4	15
Tertiary	8	60

Table 2
Themes and sub-themes.

Main themes	Sub-themes
Perceived Severity and the Threat	1. Depression and anxiety
	2. Poor sexual performance and Infertility
	3. Self-Isolation
	4. Social Isolation
	5. Death
Perceived Benefits of CCS	6. Prevention and knowing your status
	7. Early detection of cervical cancer

I think cervical cancer can make women very depressed because you know oo it cannot be cured especially when it has gotten to the late stage it gets to worse, and you know nothing can be done about it, it can even cause divorce and make women depressed for the rest of their lives. (Adwoa, 25 years).

It can make women life miserable, that is the cost involved, where you have to spend all your money on drugs and sometimes surgery and all that, some women have to sell that they have before they can get money to do this, so it will definitely affect the woman psychologically and can cause some women to even commit suicide. (Rita, 22years).

Some participants shared their thoughts concerning anxiety as specified by Rafiatu:

Hmmm, it is serious and I think it will cause most women to be anxious because they are not sure of the outcome and sometimes discouragement from friends and other people can worsen this anxiety. (Rafiatu, 45 years).

3.5. Poor sexual performance and infertility

Cervical cancer affects both sexual function and fertility of women due to the interrelation of the reproductive organs. It is therefore not surprising that poor sexual performance and infertility were reported by participants as perceived severity of CC. The explanations participants provided for this perceived severity were; pains during intercourse, discharge from the vagina that smells, sores in the vagina and decreases libido. Participants made the following statements with regards to poor sexual performances.

This cancer is serious because it can cause sores in the vagina and when you have these sores you will feel pains during sex, so you can't also have sex. (Yaa, 28 years).

If what I said is right about smelly discharges then definitely, as a woman you can't have sex when that place smells because whenever I have candidiasis I don't want any man to see till I treat it and I guess it can also decrease libido. (Rexy, 32 years).

Below are the narrations of some participants with regards to infertility as perceived severity and threat to cervical cancer:

Cervical cancer is serious as it can affect the female reproductive system causing a woman to be infertile. Since all the reproductive organs are related, if it affects the cervix, it can also affect the vagina, so it can make a woman barren. (Adwoa, 25 years).

I think it will make labour difficult and most women with this cannot have babies looking at where it affects. (Akosua, 30 years).

3.6. Self isolation

Most women in an attempt to cope with anxiety and stress-related to cervical cancer diagnosis, isolate themselves from people. Varied perceptions were held by participants regarding why women with cervical cancer isolate themselves from people. The statement below depicts self-

isolation as shared by Ramatu:

I think maybe you may get some wounds in the vagina, maybe some rashes at the vagina, when this happens you cannot even go out with your friends to places where you use to go again. You have to be indoors all the time. (Ramatu, 29 years).

Some participants had the perception that due to the change in appearance resulting from the CC, affected women will want to isolate themselves. This is portrayed in the statement below:

I know that the form of the person with cancer also changes and you know with that people will start saying all kinds of things about you, some will even think is HIV or juju (black magic) and based on what you will be hearing, you won't feel like going close to people. (Ruth, 37 years).

Other women shared that CC will lead to faecal and urinary incontinence in women causing them to isolate themselves as illustrated in the statement below:

Cervical cancer is very serious, even cancer itself, the word cancer is very dangerous and it can pose a threat to the woman. You know a woman if you are in free-range you can't control it like if you can't feel like you are going to the toilet or you are urinating and it just comes. This can make the woman isolate herself from people. (Akosua, 30 years).

3.7. Social isolation

Sometimes women with cervical cancer are neglected or ignored by friends, families and loved ones due to perceptions people have about cervical cancer and the changes it causes in the life of victims. Participants in this study shared varied reasons why women with cervical cancer are ignored by friends and love ones. Some of the reasons include: change in appearance, a misconception that it is contagious, and financial constraints. Some women had this to share:

Sometimes, when you see people with cancer, they have lost so much weight that at times friends and other loved ones ignore them. Some health professionals even discriminate against these women. (Akua, 24 years).

Sometimes people who suffer this cancer, friends and loved ones neglect them at the hospital probably not because they want to, but they have spent so much and they can no longer afford to take care of them. (Rebecca, 24 years).

According to other participants, women with cervical cancer are neglected on the basis that it is contagious as portrayed by Ruth who also emphasizes the need for public education:

Also, you know this cancer when someone gets it, probably when you get close to them and do things with them you can also get it, so people will be cautious of going closer to them. So, if it is not infectious then you people should educate us. (Ruth, 37 years).

3.8. Death

Cervical cancer is one of the gynaecological cancers causing female mortalities worldwide. Even though there are treatment available for managing cervical cancer, participants in this study had various perspectives on higher mortality rates associated with cervical cancer. Participants based their arguments on the fact that it has no cure. Some participants expressed their thoughts about death as perceived severity of cervical cancer as:

From errrm, the program I watched and what I saw on TV errrrrrm a lot of women die out of cervical cancer, a lot of women around the world so it is very serious and it is very important that we all go for screening and all that. (Adwoa, 25 years)

When you get this cancer, it will damage that part. It will gradually cause your death, which is very dangerous than most of the conditions because this cancer will be inside your stomach when you get it, so you won't see it until you die. (Rejoice, 42 years).

I heard most people who are suffering from cervical cancer hardly survive it, that is about 99% don't survive it, so I think it's very dangerous if you have it because it may endanger your life. (Rosina, 34 years)

3.9. Perceived benefits of CCS

Cervical cancer screening is vital in early detection of precancer cells before it becomes malignant. Almost all the participants perceived cervical cancer screening to be beneficial and shared their opinions about the benefits of cervical cancer screening as follows.

3.10. Prevention and knowing your status

The majority of participants knew that going for cervical cancer screening will aid in preventing cervical cancer since the women will then know their status. These responses were shared by participants regarding the benefits:

Yes, it is very beneficial, I'm sure errrm..you will get to know your status and if you have any other problem I think they will advise you, so that you will get to know the dos and don'ts about certain things, so you don't contract the disease so, I think the screening is very beneficial. (Adwoa, 25 years).

I think cervical cancer screening is very beneficial to women because if you go for the screening, you will also get the opportunity to be educated on the condition. The doctor will educate you on cervical cancer and ways to prevent it and ways not to get it so as to protect you, so that in the nearest future you don't develop this cervical cancer. (Rebecca, 24 years).

Akosua A 30-year-old added that because it is beneficial, all women should go in their numbers for the screening:

The screening will help you to know whether you have it or not so I think if they are screening for cervical cancer I think women should participate, we should go in our numbers, to me if you have that sickness you are in danger so if they are screening, they are screening we should all go so that we can prevent ourselves against this cancer. (Akosua, 30 years).

3.11. Early detection of cervical cancer

Most of the participants were cognizant of the fact that cervical cancer screening can detect cervical cancer early in order to receive timely intervention to prevent them from dying or having complications. This was evident in the expressions below:

The screening will help you to know what is wrong with you, so that you will know whether you are developing this cancer. When you are being screened and even if you have it at the end of the day, medications or other treatments would be administered to you and then you will be free at the end of the day. (Rexy, 32 years).

Every screening is beneficial because it will help you to know whether you are sick or not, so I think if you do this screening it may help you to detect whether you have cervical cancer or not as early as possible but most of the time in Ghana we wait till we see something serious before we get to the hospital for screening but at that point, very little can be done about it. (Afia, 26 years).

I think this screening is beneficial to people who are affected by cervical cancer since it will help you to really know what is wrong with you and how the condition is like and then how to cure you. (Akua, 24 years).

Regina, a 26-year-old, shared her testimony about her friend regarding early detection of cervical cancer:

My friend like this she went to the hospital for the screening and she was told she has cancer and she has been receiving treatment since then and she is still alive and responding to the treatment. So imagine when she had not gone for this screening, probably it might have gotten worse or she might not be alive by now so I think is beneficial. (Regina, 26 years).

4. Discussion

The perception that women have with regards to cervical cancer severity is an important determinant to whether or not they will be willing to partake in CCS. It was, therefore, necessary for participants in this study to share their views pertaining to the severity of CC. Death, low sexual performance; infertility, depression, anxiety, and isolation were identified by participants in this study as accounting for cervical cancer severity. Depression and anxiety are major factors that participants suggested threaten the lives of women living with cervical cancer. According to participants in this study, some women diagnosed with CC feel extremely sad and worried due to the danger cervical cancer poses to affected women. For example, participants attributed the anxieties and depression experienced by women with cervical cancer to the fact that it has no cure. This finding was in conformity with a study among Vietnamese Americans [37]. Similarly, in Taiwan, a study findings revealed that women with cervical cancer expressed worry as a major health concern [38]. Moreover, in other studies, participants exhibited anxiety [39,40]. In this study, participants reported suicidal tendencies if depression is not managed properly. The findings concur with a 2013 study using women in Sweden diagnosed with cancer which shows that some of the participants committed suicide whilst others attempted suicide [41]. This implies that women with cervical cancer need to be given sustainable family and health professional support as well as care from friends, and significant others in order to manage depression and to help reduce suicidal ideations.

Poor sexual performance was a major finding in this study. Participants attributed the sexual dysfunctions women experienced to pain during intercourse, foul-smelling vaginal discharge, decreased libido and feeling of fatigue or sick. According to the women, if the sexual dysfunction is not managed it may lead to a break in marriages or relationships. This finding was similar to several other studies whose participants diagnosed with cervical cancer experienced sexual dysfunctions such as reduction in sexual desire as well as sex frequency [41–43]. This implies that more research needs to be conducted in the area of sexual dysfunctions women with cervical cancer experienced in order to provide appropriate health support. Participants claimed women with cervical cancer may have issues with fertility which is similar to findings of previous studies [44].

Participants in the current study experienced isolation in relation to cervical cancer severity. The women suggested that it is either women with cervical cancer who disengage themselves from people or other people (friends, family and significant others) neglect them. The reasons reported for the isolation were; fear of what people will say, the misconception that one is HIV positive, the misconception that one has engaged in money rituals, change in their physical appearance, and financial constraints. These findings corroborate with other studies that detected isolation and lack of support from partners, friends and family members among patients with cervical cancer patients [40,45]. Lack of support was found by these researchers to increase the anxiety levels of women with cervical cancer. On the contrary, a Ghana-based study findings revealed adequate support from friends, husbands, families, workplace and health workers towards cervical cancer patients [46].

All participants in this study identified death as a serious threat that is associated with the level of seriousness of cervical cancer. They expressed that most women who are affected with cervical cancer do not survive it and suggested that measures should be put in place to reduce

the number of deaths caused by this cancer including screening, and timely interventions. Similarly, other studies in Uganda, China Ethiopia, and Zimbabwe have discovered that the majority of women with cervical cancer die [37,47–50]. For instance, in 2012 an estimated number of 265,700 deaths from cervical cancer worldwide were recorded [51]. The high perceived severity in the current study did not reflect in women's willingness to screen for CC. These findings contradict the results of some authors in Thailand who identified that the higher the perceived severity, the higher the chances that women would be engaged in CCS [52].

Per the findings of the current study, nearly all the participants were aware of the role cervical cancer screening plays in detecting cervical cancer early and protecting women against this cancer. Participants, therefore, focused their descriptions about CCS perceived benefits on early detection and prevention of CC. Knowing a woman's cervical cancer status as well as keeping oneself from getting cervical cancer was suggested by more than half of the participants as the main benefits of CCS. The higher perceived benefits revealed in the latest study was supported by several other studies both in Ghana and abroad [14,20,53]. For example, in 2016, The American Cancer Society established that CCS has been able to avert over 50% of cervical cancer in U.S.A and about 70% in England [53]. Based on this, participants in this study further revealed the need to intensify education on the screening to help reduce CC incidence rate as supported by findings of a study which found it necessary for workers to discuss cervical cancer screening benefits with their clients to increase their patronage [14]. The higher perceived benefits in the current study did not positively affect the probability of women to undertake cervical cancer screening as supported by another study in Botswana [18].

5. Conclusion

Women viewed CC as a serious and life threatening condition since it has no cure and leads to the death of most affected women. Besides CC severity was linked to infertility, isolation, depression and poor sexual performance. The majority of participants perceived cervical cancer screening as beneficial since it helps women to know their status, and detect cancer cells early for preventive and treatment measures. This high perceived severity of CC and susceptibility of CCS present opportunities for early screening and timely family support.

Ethics approval and consent to participate

Ethical clearance was sought from the Noguchi Memorial Institute for Medical Research Institutional Review Board (NMIMR-IRB) of the University of Ghana (NMIMR-IRB 036/18–19).

Availability of data and materials

The study data and materials are available as supplementary information.

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The researchers did not receive any funding for this study.

Implication for policy formulation

It is necessary for policy to be formulated on mandatory education to mothers about CCS/CC during antenatal and postnatal services. There should also be an innovative policy regarding CCS cost, treatment and HPV vaccination, to help increase utilization of CCS services, increase early reporting of CC to the hospital, acceptance of CC treatment and reduction of the incidence rate of CC.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

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