KNOWLEDGE AND BELIEFS ABOUT CERVICAL CANCER SCREENING AMONG MEN IN KUMASI, GHANA

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SUMMARY

Introduction: The age-standardized mortality rate for cervical cancer in Ghana, West Africa is more than three times the global cervical cancer mortality rate (27.6/100,000 vs. 7.8/100,000 respectively). The Pap test and visual inspection with acetic acid are available at public and private hospitals in Ghana. Approximately, 2.7% of Ghanaian women obtain cervical cancer screenings regularly. Men in middle-income countries play a key role in cervical cancer prevention. Increasing spousal support for cervical cancer screening may increase screening rates in Ghana.

Methods: Five focus groups were conducted with Ghanaian men (N = 29) to assess their cervical cancer and cervical cancer screening knowledge and beliefs. The qualitative data was analyzed via indexed coding.

Results: Targets for education interventions were identified including inaccurate knowledge about cervical cancer and stigmatizing beliefs about cervical cancer risk factors. Cultural taboos regarding women's health care behaviours were also identified. Several participants indicated that they would be willing to provide spousal support for cervical cancer screening if they knew more about the disease and the screening methods.

Conclusions: Men play a significant role in the health behaviours of some Ghanaian women. Cervical cancer education interventions targeting Ghanaian men are needed to correct misconceptions and increase spousal support for cervical cancer screening.

Keywords: Uterine Cervical Neoplasms/Prevention and Control; Ghana; Focus Groups; Health Knowledge, Attitudes, Practice; Male

INTRODUCTION

Cervical cancer is the leading cause of cancer death among women in Ghana, West Africa.[1, 2] The cervical cancer incidence and mortality rates in Ghana are among the highest in the world.[2, 3] These rates have been rapidly increasing in contrast to the decreasing cervical cancer incidence and mortality rates in developed countries.[4]

The World Health Organization (WHO) predicts that by the year 2025, 5,000 new cases of cervical cancer and 3,361 cervical cancer deaths will occur annually in Ghana.[2] Cervical cancer is highly preventable with the use cervical cancer screening tools.[4-6] When cervical cancer is found in early stages, it can be easily treated; however treating advanced cervical cancer is very challenging.[4, 7,8] Although there is no formal cancer registry in Ghana, the International Agency for Research on Cancer has estimated that in 2008, 3,038 Ghanaian women developed cervical cancer and more than 2,006 Ghanaian woman died because of cervical cance.[2]

Despite these staggering statistics, cervical cancer prevention is not commonly promoted in Ghana.[3, 7, 9-11] Diseases such as malaria, tuberculosis, HIV/AIDS, and most recently breast cancer receive the majority of health promotion resources.[12] The Pap test and visual inspection with acetic acid (VIA) are the cervical cancer screening tools that are available in public and private hospitals throughout the country. Some public hospitals offer free cervical cancer screenings. In the past, non-governmental organizations have conducted organized cervical cancer screening events in rural areas.

Additionally, the bivalent HPV vaccine has been licensed for use in Ghana and HPV DNA testing is available in a few large public hospitals.[2] However, data from the World Health Survey indicate that cervical cancer screening rates in urban and rural areas in Ghana are extremely low (3.2% and 2.2% respectively).[2] The results of previous studies indicate that lack of knowledge about cervical cancer among Ghanaian may be a barrier to cervical cancer screening.[9, 13-15]

The WHO recommends involving men in the prevention of cervical cancer in middle and low-income countries.[16] To date, there is a lack of information in the scientific literature regarding Ghanaian men's knowledge, attitudes, and beliefs about cervical cancer and the roles that they may play in cervical cancer prevention.

Psychological barriers, including the lack of spousal support, can impede a woman's access to cervical cancer screenings.[8, 17, 18] Therefore, it is important to determine men's knowledge and beliefs about cervical cancer so that targeted interventions can be developed to increase their knowledge about cervical cancer and increase spousal support for cervical cancer screening. The theoretical framework of this study was based on Airhihenbuwa's[17] PEN-3 models and the Health Belief Model.[19, 20]

The purpose of this study was to assess Ghanaian men's knowledge and beliefs about cervical cancer risk factors and cervical cancer screenings; to identify cultural beliefs and practices that may lead to a lack of spousal support for cervical cancer screening; and to assess Ghanaian men's willingness to encourage their spouses to get screened for cervical cancer. In some Ghanaian households, men play significant roles in the healthcare behaviours of women. Therefore, the factors identified may serve as targets for cervical cancer education interventions.

METHODS

Settings and Participant Selection

This study was conducted in Kumasi, an urban city in the Ashanti region of Ghana, West Africa. Men who were over the age of 18 and who could hear and speak English or Twi (a native language common in the Ashanti region) were recruited from communities in Kumasi. Two Ghanaian men were hired to recruit male participants via purposive sampling. Approval to conduct this study was obtained from the Institutional Review Board at Kwame Nkrumah University of Science and Technology. All of the participants provided written consent to participate in the study.

Data was collected during five focus groups that were conducted over a period of three weeks between November and December 2010. Focus group recruitment ended after data saturation was reached. The focus groups were held in various locations in Kumasi, including in a conference room at the local university, in a furniture workshop, and on the patio of the home of one of the participant's. Each focus group consisted of four to six participants. The focus groups were segmented according to the participants' age and level of education. The focus group moderator was a Ghanaian male who conducted the focus groups in Twi and English. All of the focus groups were audio recorded. The moderator transcribed and translated the recordings after each focus group. An assistant moderator was present at each focus group, and recorded notes regarding the discussion and environmental factors.

In order to circumvent the challenge of limited literacy, all of the focus participants completed a demographic survey with the use of an audience response system. The demographic data that was collected included age, educational level, martial status and family history of cervical cancer. The moderator used a structured focus group guide to gather data on the following topics: 1) beliefs about cancer in general, 2) awareness of cervical cancer, 3) knowledge of cervical cancer risk factors, 4) spousal support for cervical cancer screenings, 5) financial support for cervical cancer screenings, 6) sources of health information, 7) preference in the types of health promotion messages, and 8) preference in the mode of delivery of health promotion messages. This article will report the results of the first five topics.

Data Analysis

The focus group recordings were transcribed and translated into English by the moderator. The assistant moderator reviewed the transcripts and made adjustments as needed. The research team reviewed each transcript. Indexed coding was used to analyze the data by coding themes in the data according the major topics in the focus group guide. After the codebook was created, NVIVO 8 was used to search the transcripts for key terms and phrase that were used to develop subcategories in the codebook. Descriptive counting was used to determine the most common themes and how the frequency of those themes occurred for each subgroup. A variable-by-variable matrix was also used to aid with this analysis.

RESULTS

Patient recruitment and characteristics

Table 1 displays the demographic characteristics of the study participants (n = 29). The majority of the participants (86%) were under the age of 36; 23 (80%) of the participants had a high school or junior high school level of education; 10 (34%) participants were married; and 21 (72%) participants had health insurance. When asked if they knew whether someone in their family had ever had cervical cancer, 21 (72%) selected 'no' and 8 (28%) selected 'not sure.'

Emerging Themes and Subthemes

Several major themes emerged within and across the focus groups. The most common themes and subthemes that emerged during the data analysis are presented in Table 2.

Cervical Cancer Awareness

When asked about their knowledge of cervical cancer, the majority of the participants indicated that they had never heard of the disease.

Some of the participants who had a college degree or higher level of education stated that they had some knowledge of cervical cancer. One common reason that several participants gave for not being aware of cervical cancer was the general lack of awareness about cancer in Ghana.

Table 1 Demographic Characteristics of the Male Focus Group Participants (n=29)

Age	**N**	**%**
18 – 24	13	44.8
25 – 36	12	41.4
37 – 48	3	10.3
49 – 64	1	3.4
Education level		
Junior High School	11	37.9
Senior High School	12	41.4
University, Graduate, or Professional School	6	20.7
Relationship Status		
Single	19	65.5
Married	10	34.5
Health Insurance		
Yes	21	72.4
No	8	27.6
Family History of Cervical Cancer		
Yes	0	0
No	21	72.4
Not Sure	8	27.6

In addition, participants indicated that the discussion of an individual's health problems is not a common cultural behaviour.
A statement from one of the participants exemplifies this belief: "In our Ghanaian culture when someone has a sickness or disease they do not talk about it… Because of this many diseases are not made public so I have not heard of cancer."

Cervical Cancer Risk Factors
Only one of the participants was able to correctly identify the Human Papillomavirus (HPV) as the major risk factor for cervical cancer. The majority of the participants, regardless of education level, had similar misconceptions about the risk factors for cervical cancer. The most common belief among the participants was that cervical cancer was caused by too much sex. Although, multiple sexual partners is a risk factor for developing cervical cancer due to the increased risk of contracting HPV, the participants believed that physical damage due to frequent sex was the risk associated with too much sex. The participant's statement below provides an example of this: "If there are many [sex partners] it means everyday you are engaged [in sex] and that place becomes infected and there will be sores that can lead to cervical cancer."

Additional inaccurate risk factors that were commonly stated among the participants included the use of chemicals around the sex organs, having an abortion, inserting local herbs in the vagina, and poor hygiene. The statement below illustrates the participants' beliefs about how chemicals can cause cervical cancer: "… Most men use some chemical around their sex organs when they are about to make love and these chemicals can cause cancer in women."

Cervical Cancer Risk Reduction
We asked the participants to share their thoughts about how women could reduce their chances of developing cervical cancer. The most common response from the participants was that women should not be promiscuous. In addition, several participants in different focus groups suggested that women could reduce their risk for cervical cancer by not getting abortions and by increasing women's awareness of cervical cancer. As exemplified by the statement below, some participants indicated that education alone would not be enough to reduce a women's risk for cervical cancer: "Education alone can't help but rather there should be more job opportunities for women to keep them away from promiscuous life."

Cervical Cancer Screening
Since Pap tests and VIA are the cervical cancer screening tools available in Ghana, the participants were asked if they were familiar with these tests. The majority of the participants were not aware that cervical cancer could be prevented through early detection with the use of these screening tools. Two of the participants who had at least a college degree indicated that they had heard of the Pap test and the visual inspection. A statement from one of the participants indicates his familiarity with VIA: "I have heard of the physical [visual] inspection… were they go see the doctor to inspect their organs to see if something is there."

When asked if they would allow their wives to get a cervical cancer screening, some of the participants stated that they would be willing to encourage their wives to get a screening. A statement from one of the participants who was willing to support screening is provided below: "Looking at the dangers inherent in getting or contracting cervical cancer I am married so I would want especially for my wife [to get a cervical cancer screening] so she doesn't in the future get cervical cancer."

Cultural Taboos

Many of the participants who were married also indicated that they would not be comfortable knowing that their wife was having a cervical cancer screening preformed by a male doctor. With the exception of giving birth, participants indicated that is a taboo for a man, even a doctor, to see another man's wife naked. In addition, preventive healthcare is not common. The following statement from a participant exemplifies both of these cultural beliefs:"As to physical [visual] inspection, I would still say no, because why would my wife go to the hospital and sleep on the bed for a doctor to physically inspect her sexual organs and those things… because she is not sick and she is still strong and anything can happen."

One participant stated that he would not allow his wife to have a cervical cancer screening performed by a male doctor, but would be willing to do the inspection himself: "Teach me the signs and I will inspect myself."

Table 2 Emergent Themes from the Focus Group Data

Theme and Sub-themes	Illustrations
Cervical Cancer Awareness	
No knowledge of cervical cancer	"I do not know anything and I am anxious to ask you what are the symptoms of someone who has cancer?"
Cervical cancer mortality	"When a woman gets cervical cancer, she will struggle with the disease for a long time, doctors will do their best but death is the final outcome by most cervical cancer patients."
Cervical Cancer Risk Factors	
Viruses	"I am sure the major cause is something related to sex… I also believe the disease is caused by a virus."
Multiple Sex Partners	"What causes cancer is women who sleep with multiple partners."
Chemicals	"Women who bleach a lot of this leads to cancer."
Abortions	"…Continuous abortion can also cause cervical cancer."
Local herbs	"Most women insert herbs in their private parts to abort. These herbs can lead to cancer in women."
Poor Hygiene	"Some women are generally not clean. They do not wash their private parts thoroughly… dirt can also cause cervical cancer."
Cervical Cancer Prevention	
Reducing Frequency of Sex	"We think when women decide to sit at home, marry one man, and stay with the man or reduce the frequency of sex, cervical cancer can be prevented."
Increasing Awareness	"It can only be prevented when there is a lot of education about the disease on the radio and television."
Cultural Taboos	
Aversion to male doctors	"… to be honest I won't be happy about a male doctor performing these tests on my wife especially the visual inspection."
Women's fear	"Most women feat the outcome of these tests."
Sick care behaviours	"In our culture, we usually consult a doctor when we only fall sick."
Cost	
Willingness to pay for the screening	"If I understand why the test is being done then I will pay happily."
Unwillingness to pay for the screening	"Most Ghanaian men will not be willing to pay for these tests when the situation is not critical."

Several of the participants also indicated that Ghanaian women might not seek cervical cancer screenings due to a lack of trust in the health care system. The belief that screening results would not remain confidential and the secretive nature of Ghanaian women were also contributed to their lack of screening. The statement below represents these beliefs: "Most Ghanaian women are secretive when dealing with issues about the womb and sexual organs…they are apprehensive …they do not trust the laboratory technician to keep the results confidential."

Cost

Although we did not provide the participants with the actual cost of a cervical cancer screening test, we asked them if they would be willing to pay for the test. As indicated by the statement below, some participants indicated that they would be willing to pay for the test since it could help reduce their wife's risk of developing cervical cancer. "I should know the cost of the test before my wife will go for it. If I can afford [the test] I will encourage my wife to have the test."

Several participants indicated that the cost of the screening test would be a major barrier that would prevent them from encouraging their wives to get screened. As indicated by the statement below, one participant stated that he would pay for the screening, but would not be satisfied if the screening results were negative:"If after the test the results are negative, then paying for the test will be difficult."

Messages to Other Men

The participants were asked to provide a statement to other Ghanaian men regarding cervical cancer prevention. The majority of the participants stated that Ghanaian men should encourage their wives to get screened for cervical cancer. The statement below exemplifies the statements of several participants in different groups who believed that women should get screened before they get married: "…before a couple tie the knot in marriage they should have a cervical cancer screening. If the woman has the disease the man should help her seek treatment."

Several participants indicated that it would be important for Ghanaian men to play a role in their wife's health care. However, as exemplified below, most of the participants emphasized sick care as opposed to preventive care. "I will entreat all men not to take the health of their wives for granted. If their wives complain of any pain they should encourage them to seek medical attention."

DISCUSSION

The WHO [16] has suggested that men play an important role in the cervical cancer screening behaviors of women in middle-income countries, such as Ghana. Previous studies about cervical cancer awareness in Ghana have focused mainly on Ghanaian women, however, the results of this study showed that lack of spousal and financial support by men may be a barrier to cervical cancer prevention in Ghana.

Most of the participants in this study were not aware of cervical cancer, and several held stigmatizing beliefs about the risk factors for the disease. Therefore, it is important to develop culturally relevant interventions aimed at increasing Ghanaian men's knowledge and awareness of cervical cancer and cervical cancer screening.

The results of this study also provide evidence of the need to implement changes in healthcare policies in Ghana. It appears that significant psychological barriers to spousal support for cervical cancer screening include attitudes towards male doctors examining the "private parts" of visibly healthy women and the lack of the perceived need for preventive care. Therefore, it is imperative that there is an increase in the number of trained female health care providers offering cervical cancer screenings. Culturally appropriate health promotion interventions that will increase Ghanaian men and women's awareness of the benefits of preventive health behaviours are also needed.

Increasing men and women's awareness of the free screenings that are offered at some public hospitals or during organized screening events may help to overcome perceived financial barriers to men's support for cervical cancer screenings. Several participants indicated that they would encourage their wives to get screened if the government would pay for the cost of the screening. Therefore, it is recommended that officials within Ghana's Ministry of Health consider providing and promoting free cervical cancer screening for all women.

One limitation of this study is the use of purposive sampling to select participants. Due to design of this study, the random selection of participants would not have been feasible. However, the researchers stopped collecting data after five focus groups because we had reached a point of saturation. We believed that there would not have been any additional variability in the data if we had conducted more focus groups with male participants. Another limitation is that we conducted this study in the second largest city in Ghana. Although we conducted focus groups in peri-urban areas within the city, the results may not be representative of men living in rural areas in Ghana.

Experts in the field of cancer prevention have indicated that cervical cancer can be eradicated with the use of the cervical cancer screening tools that are currently available. The predicted increase in the incidence and mortality rates of cervical cancer in Ghana, should serve as a call to action to enhance efforts to increase cervical cancer screening rates among Ghanaian women. Psychological, environmental, and financial barriers should also be addressed in cervical cancer education interventions.

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