Research Article

IJSEHR 2017; 1(1): 12-17
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www.sportscienceresearch.com
Received: 23-01-2017
Accepted: 08-03-2017

Visual inspection with acetic acid screening for cervical cancer: perceptions of Zimbabwean women: A case of Kwekwe hospital

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Abstract

Objective: The purpose of the study was to establish the knowledge, attitudes and perceptions of women towards Visual Inspection with Acetic Acid for Cervical cancer (VIAC) in Kwekwe Zimbabwe. **Methods:** The research was a case study of Kwekwe General Hospital. Structured interviews were used to obtain qualitative data from a sample of 50 women aged 51 years and above whom were purposive sampled from women attending the hospital outpatient department. The data was analysed thematically to answer the research questions. **Results:** The findings were that 66% had not been screened for cervical cancer. Whilst 34% of the women lacked information about cervical cancer and screening with VIAC test, 70% of them indicated willingness to be screened. The unscreened women cited lack of knowledge (36.4%), fear of results (27.3%), embarrassment (21%) among others as the reasons for not having the test. The majority of women (70%) who were VIAC screened took the test because they had symptoms. **Discussions:** All the participants by virtue of being sexually active are at risk of cervical cancer. Their education level was a minimum of a high school certificate but 66% did not go for screening. The lack of knowledge about cervical cancer cited by the participants can be attributed to lack of health education by health care providers. If the participants had adequate knowledge on the danger of late diagnosis of cancer, then they will be screened due to the perceived risk. In addition, knowledge would dispel the embarrassment and fear. **Conclusion:** The conclusion drawn from this research is that women are not being screened because of lack of knowledge of cancer of the cervix and the screening procedure (VIAC). The negative perceptions can be dispelled with education therefore the health workers need to increase community awareness concerning Cervical Cancer and screening to increase the uptake of visual inspection with acetic acid test from 0.01%.

Keywords: Cancer, Cervix, Screening, Visual inspection, Knowledge, Perceptions.

INTRODUCTION

Cervical cancer is one of the reproductive health problems faced by women. It is the second most common cancer among women worldwide, and according to World Health Organization (WHO) [1], about 500 000 new patients are diagnosed every year and over 250 000 deaths occur every year. In 2012, according to WHO fact sheet [2], 14 million women worldwide were diagnosed with cancer of the cervix and of these, 8.2 Million died. About 86% of the cases occur in developing countries. Cervical cancer is the leading cause of death in women in South Central Asia, Latin America, the Caribbean and Sub-Saharan Africa, resulting in greater reduction in women's life expectancy [3]. In Zimbabwe, 2,270 new cervical cancer cases are diagnosed annually with 1,451 cervical cancer deaths occurring annually [4], making it the most deadly cancer among Zimbabwean women. WHO [3], report states that currently only 7.2% of women in Zimbabwe aged between 18 and 69 years get screened for cervical cancer every three (3) years.

According to the WHO [5], cervical cancer is a major cause of morbidity and mortality among women in resource-poor setting, especially in Africa. The unfortunate part is that the majority of cancers (over 80%) in Sub-Saharan Africa are detected in the late stages, predominantly due to lack of information about cervical cancer and available prevention services. The late stage disease is associated with low survival rates after surgery or radio-therapy. In addition, these treatment modalisties may be lacking altogether or too expensive and or inaccessible for many women in low-resource countries [5]. Even though cervical cancer is potentially preventable and with effective screening programmes [5], Denny [6], points out that African women seek help only when the disorder/disease is far advanced cure or control nearly impossible.

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Denny [6] goes on to say that cervical cancer is a common cancer in poor women due to inadequate mass cervical cancer screening and their cure rates are low as they present late. However, Lewis *et al* [7], comments that cervical cancer is fully preventable and curable at low cost with low risk when screening facilitates the timely detection of early precursor lesions in asymptomatic women is available together with appropriate diagnosis, treatment and follow up. In poor resource countries Visual inspection with acetic acid and cervicogram (VIAC) is the answer.

In 2011, Visual inspection with acetic acid and cervicogram (VIAC), which has a lot of advantages including immediate results, affordability and sustainability, was introduced as a free service in Zimbabwe (ZMOHCW Report, 2012) as a government initiative to promote reproductive health. In Kwekwe City, VIAC is being offered at Kwekwe General Hospital free of charge since January 2013. According to Kwekwe hospital VIAC statistics, since then to January 2017, a total of 8466 women has been screened for cervical cancer, and out of these 444 tested were positive with 157 being suspicious of cancer .Thus the VIA positivity so far is 5.3 %. However, the majority of patients who came to Kwekwe Hospital with symptoms of suspected cancer of cervix were diagnosed at an advanced stage, a stage where cure is impossible. Since the introduction of VIAC 60% of those who tested VIAC positive were confirmed cervical cancer, stages three and four. If they had been screened earlier their chance of survival would have been higher. The population of women aged 15and 69 in Kwewke district is 654 812 and only 0.01% have been VIAC screened. Why are the women not grasping this free offer for them to be screened? Is it because they are not interested in their health or they lack knowledge of the disease and the screening procedures?

METHODS

The research was a case study of Kwekwe hospital .This qualitative design was chosen because it allows an in depth study of the low uptake of cervical cancer screening services at one given site. It also allows the study of the attitudes and perceptions of the women towards VIAC. Kwekwe General Hospital was chosen as it was is the first VIAC centre to be established in Midlands Province of Zimbabwe hence all the women of the Midlands Province of Zimbabwe were screened at this institution. In addition it is also a district referral hospital so women from the whole district could be accessed there. A purposive sampling approach was used to select 50 women in the outpatient department who had visited the hospital for any reason. The defining characteristic of the sample was the women had to be 15 years and above. Structured interview technique was used to collect data because even those who could not read and write were included and questions were clarified so that information gathered would be accurate. Data management involved inspecting, cleaning, transforming and modelling data into themes with the goal of highlighting useful information, suggesting conclusions and supporting decision making. Data was analysed thematically according to the research questions.

Ethical Considerations

For the purpose of protecting subjects from physical, mental, economic, social and emotional discomfort, the participants were asked for their willingness to participate in the study and ensured their informed consent prior to being involved in the study. The interview schedule did not have the name or number of the respondent for confidentiality purpose. The participants were also advised that they were free to withdraw at any stage of the study. They were assured that their decision to withdraw was not going to affect their right to treatment of any kind or at any time. Permission to carry out the study was also sought from the Medical Research Council and the Medical Superintendent of Kwekwe General Hospital

RESULTS

Demographics

The age, marital status, religion and level of education were analysed with the intention of finding out if they had a bearing on the attitude and perception of women in VIA screening programme for cervical cancer.

Age

All the participants were either in the chid bearing age or menopause meaning that they were all exposed to sexual activities which puts them at risk of HPV which causes cervical cancer hence they should be targeted for VIA screening. The majority of the women (32%) were aged between 26-30 years which is the peak of the child bearing age and this was followed by age group 31-35years which had (18%). Age group 36-40 years had (16%) and age group 21-25years had (10%) while age groups 15-20years, 41-45years and above 46 years each took (8%).

Marital status

The marital status distribution of women indicated that the majority, (76%) of the participants were married, while (10%) were widowed, (12%) were divorced and (2%) were single. Christians constituted 98% of the participants with the remaining 2% being Muslims. All the women interviewed had at least attained ordinary level with 66% having a diploma or degree.

The majority of the women (76%) in this study were married. Married women may think that they may not be at risk of developing cervical cancer and may not seek cervical cancer screening for that reason. However, Mutyaba *et al* [8], pointed out that not only promiscuous women are at risk of developing cervical cancer, even women whose husbands visit sex workers are at risk of being infected with HPV through their husbands. However in this study marriage did not have a positive influence on the cervical cancer screening behaviour. Even though married women may not view themselves as susceptible to cancer but according to WHO (2010), all women of child bearing age are at risk of getting cervical cancer, as attributable to HPV which is among the most sexually transmitted diseases.

Religious Status

All the sampled women were religious people. This meant that perceptions of cervical cancer and screening would affected by their religious beliefs. However, in this study, religion did not have a positive influence on the uptake of VIA screening. This is supported by **Gianz (2008),** who said that religion may influence perceptions of people. This is further supported by **Abdullahi et al (2009**), who reported that Somali women held fatalistic attitudes, associated with the idea of “God’s will” about this cervical cancer screening services among Somali women.

The study revealed that most women were Christians, which implies that they were church goers hence churches should be utilised to disseminate information about cervical cancer and cervical cancer screening using VIA test.

Level of Education

All the women in the study were literate. This means that the women sampled would easily understand any health education which would be given on reproductive health including prevention of cervical cancer using the VIA screening method.

Education is a key determinant to the life style and status an individual enjoys in society Glanz *et al* [9]. He goes on further to say it affects

many aspects of life including demographic and health behaviour. He further commented that low levels of education usually impact negatively on women's comprehension concerning necessity for preventative health care services such as cervical cancer screening. However, in this study being literate did not necessarily have a positive effect on cervical cancer screening behaviour. Many women still needed to be motivated on cervical cancer screening with VIA for prevention and early detection of cervical cancer.

Attitudes and perception

Of the 50 participants 34% had been screened for cervical cancer before. Of these 41.2% were screened using the VIA tests only. From the 66% who were not screened, 97% of them were willing to be screened using VIA. Those who had not been screened but were willing said that they had not been screened because of the following reasons;

- Did not know that they can be screened even if they were not ill (36.4%) ,
- Fear of results (27.3%) and fear of pain (3%)
- Embarrassment, (21.2%)
- Had not decided (12%)
- Were too busy and did not have the time (6.1%)
- Were awaiting approval by the husband (3%)

Responding to when one should be screened, the majority of the participants (96%) believed that women should be screened when they have symptoms while 4% thought that screening should be done routinely on every women who seeks medical care

The 41.6% who were VIA screened gave the following reasons for taking the VIA test;

- Pain. (70%)
- For peace of mind (20%)
- Advised by a health worker (10%).

The women who were VIA tested were assessed on whether they would like to do it again in the future. Majority of the participants (60%) indicated that they wanted to have the test done again in future for early detection of cervical cancer, (20%) would do it again as a good habit and the other (20%) for promoting their personal health.

Knowledge

The sampled women were assessed on their knowledge about cervical cancer and 66% of the women knew about cancer of the cervix but as much as 34% claimed that they never heard about cervical cancer. Of those who knew about cancer of the cervix, 39.4% cited the source of information as health workers, 36.4% friends, and 18.2% being informed through media, 3% from the church and 3% from their workplace.

The majority of the women who heard about cervical cancer (66.7%) knew that women should be screened for cervical cancer for early detection and (12.1%) knew that cervical cancer can kill if you delay getting help. Some of the women,3% heard that cervical cancer is occurs in women with HIV. About 50% of the participants knew about VIA as a screening test for cancer of the cervix. Of these, 92% knew where the screening was being done.

DISCUSSION

Age

All the age groups mentioned are within the chid bearing age or menopause meaning they were exposed to sexual activities exposing them to HPV which causes cervical cancer hence they should be targeted for VIA screening. Women in the age group 15 – 20 years may not perceive cervical cancer as serious because they are not fully mature hence they may not seek preventive measures like VIA screening. It is important that health education is targeted from as early as 15 years utilising schools and colleges.

In this study child bearing age did not necessarily have a positive influence on the cervical cancer screening behaviour as only 20% were VIA tested.

Marital status

A majority of the women (76%) in this study were married. Married women may think that they may not be at risk of developing cervical cancer and may not seek cervical cancer screening for that reason. However, Mutyaba *et al* [8], pointed out that not only promiscuous women are at risk of developing cervical cancer, even women whose husbands visit sex workers are at risk of being infected with HPV through their husbands. However in this study marriage did not have a positive influence on the cervical cancer screening behaviour. Even though married women may not view themselves as susceptible to cancer but according to WHO (2010), all women of child bearing age are at risk of getting cervical cancer, as attributable to HPV which is among the most sexually transmitted diseases. Marriage may actually have a small negative impact as some woman may need the husband permission to go for screening. Such women need to be empowered so that they regard their health as their own responsibility.

Level of Education

All the women in the study were literate. This means that the women sampled would easily understand any health education which would be given on reproductive health including prevention of cervical cancer using the VIA screening method. Education is a key determinant to the life style and status an individual enjoys in society Glanz *et al* [9]. He goes on further to say it affects many aspects of life including health behaviour. He further commented that low levels of education usually impact negatively on women's comprehension concerning necessity for preventative health care services such as cervical cancer screening. However, in this study being literate did not necessarily have a positive effect on cervical cancer screening behaviour. Many women still needed to be motivated on cervical cancer screening with VIA for prevention and early detection of cervical cancer. The education system needs to encompass such health issues in their programmes.

Knowledge

The women's knowledge on cervical cancer and VIA as cervical cancer screening tool were assessed in order to find out if they had a bearing on the attitudes and perceptions of women in VIA screening programme for cervical cancer.

Women's knowledge about cervical cancer

The study showed that 66% of the women had knowledge about cervical cancer meaning that these women were more likely to seek cervical cancer screening. However, despite their knowledge on cervical cancer they did not all utilise the screening service as evidenced by only 34% of the women in the study being screening for cervical cancer. This means that the knowledge of cervical cancer is not in consistency with cervical cancer screening.

In relation to cervical cancer, 34% of women in this study stated that they had never heard about cervical cancer. Usually women will seek health services including cervical cancer screening if they know about such services. This means that these women were not likely to seek cervical cancer screening services because they were not aware of the existence of such a condition.

Lack of knowledge about cervical cancer can be attributed to lack of health education by health care providers. Ackerson [10], noted that unhelpful attitudes of health professionals were an important barrier as they did not provide adequate information about cervical cancer screening. He also pointed out that the nurse's integral role was educating women regarding health preventive care especially importance of routine cervical cancer screening. The results may imply that the health workers are not doing a good job to bring awareness to the women. In this study, only 39% of the women in the study got to know about cervical cancer through the health workers. The health workers come in contact with these women as they seek other health services, such as antenatal care, delivery and immunization programmes and nurses are expected to disseminate information as they carry out routine work. However, the health care professionals need to intensify their efforts in educating women on cervical cancer and screening in order to gain big coverage of the women and be able to win the battle against cervical cancer.

In this study, friends contributed much to women's knowledge on cervical cancer, indicating that friends are a major source of information in people's lives. This means that women were likely to seek cervical cancer screening services as advised by friends.

Earlier findings in the study revealed that 100% of the sampled women belonged to religious groups. However, only 3% of the women heard about cervical cancer at church meaning that churches are underutilised for spreading information as many women are found to be Christians.

The study also revealed that cervical cancer information at workplaces was lacking considering that employed women spend most of their time at their workplaces hence such women can be easily reached and educated at work. There is need to encourage workplaces to have wellness clinics so that workers may access health information like cervical cancer screening

The majority of women (66.7%) heard that women should be screened for cervical cancer for early detection. Early detection leads to prevention although disease can be fatal if it progresses to invasive carcinoma. This is supported by WHO [5], bulletin which stated that cervical cancer is potentially preventable and that an effective screening program can bring a significant reduction in the morbidity and mortality associated with this type of cancer. This means that women, on hearing about such information, are more likely to utilise cervical cancer screening services to save their lives. However in this study, knowledge of screening for detection did not necessarily have positive influence on VIA screening even though the women knew that, *"cervical cancer can kill when one delays to seek help."* As stated by some of the women.

If women think that cervical cancer is a severe disease and believe that cervical cancer would have serious medical, social and economic consequences then they would be more likely to obtain a cervical cancer screening test like VIA test. According to WHO[5], bulletin the majority of cancer i.e. over (80%) in sub-Saharan Africa were detected in the late stages predominantly due to lack of information about cervical cancer and available preventive services. VIAC statistics at Kwekwe hospital indicated that 60% of the diagnosed cervical cancers were already in grade 3 and 4. With such statistics more need to be done to improve the reproductive health of women.

There is need to intensify health education on the seriousness of cervical cancer if not detected early so as to increase uptake of cervical cancer screening services using VIA method by women. Women who heard about cervical cancer presenting with sores and being painful accounted both for 3% of the participants. This means that these women have information about late signs and symptoms of cervical cancer and if more information is not disseminated about cervical cancer, they are likely to present at health facilities with late stages of cervical cancer. Women need to be motivated to seek cervical cancer screening services for prevention and early detection to be done through health education campaigns.

The development of cervical cancer is typically very slow, thus it occurs over a long period of time. The progression of cervical cancer begins with development of precancerous changes in normal cells [11]. When the cervix has cancerous sores and is painful it means the cancer is at an advanced stage and treatment of this stage is more palliative rather than curative. Pursuing care becomes expensive and inaccessible for many leading to high mortality rates. Unless the women are informed, they will only present with late signs and symptoms of cervical cancer.

There were very few participants (3) % who believed that cervical cancer occurs in women living with HIV infection. This result shows that very few know about the relationship between HIV and cervical cancer so women need information on prevention of HIV infection for example being faithful to one partner or use of condoms to reduce the incidence of cervical cancer since they are greatly linked. Research has shown that HIV positive patients have higher odds for development of cervical cancer than HIV negative women [12]. He further stated that most women with HIV infection are more likely to be infected with HPV and develop squamous Intraepithelial Lesions (SIL) or precancerous cell changes than negative women .He also found that HIV positive women demonstrate a faster rate of progression from preclinical stage to an advanced stage of experience recurrence of cervical cancer after treatment than HIV negative women .

However, the study result shows that fifty percent of the participants had not heard about VIA screening. This means that those women were not likely to get screened for cervical cancer using the VIA method. The result is supported by Wong *et al* [13],who stated that women lacked information about cervical cancer screening texts and the purpose of such screening. The women should be informed that VIA is affordable, feasible, acceptable and has shown to be effective in reducing cervical cancer cases [14].

The other sources were of community gatherings three responses and Church with two while one person got their information from the media. These sources indicated that they were lesser transmitters of such valuable information .Many people have access to these sources so it means that they should be utilised to maximum as healthy education is intensified and many women be reached hence increased uptake of VIA screening. Chizoma *et al* [15], stated that some women had increasing awareness of many health issues or services including HIV/AIDS because they are advertised on TV and radio meaning that the same can be done for VIA screening.

Most of the unscreened women (97%), indicated that they were willing to be screened for cervical cancer using VIA method. Those women were likely to be screened with VIA provided they were well motivated through education.

Three percent of the participants indicated unwillingness to have VIA screening. This shows that some women even if they have information may not have any intension of getting screened for different reasons, for example fear of knowing the results, cultural beliefs and even having misconceptions about the test. However these can be rectified through adequate health education.

Aruloquinet *et al* stated that 13,9% of women attributed non-use of screening services to fear of results, and supporting the above findings, Chizoma *et al* [15], said that some women said that they heard that cervical cancer screening destroys the mouth of the womb and the person would not be able to deliver a baby. All these fears and misconceptions should be corrected through health education to the community on cervical cancer and screening.

Perceptions and attitudes of women on VIAC

The results indicated that "*Lack of knowledge*" was the commonest reason (36.4 %). This means that it was the greatest hindrance among women for not seeking cervical cancer services. If women lack information about VIA test they were not likely to go for this test and utilise the screening services. Wong et al 2008 echoed this by saying women lacked information about cervical cancer screening tests and purpose of such screening. There is need to intensify health education on cervical cancer and it's prevention so that women would utilise screening.

The second most popular reason (27.3%) was "*fear of the results*" indicating that women had a negative attitude towards screening .They perceived the disease to be a death warrant. These women need elaborate information on cervical cancer screening using VIA and health workers have to work hard to dispel the women's fears.

"*Embarrassment during the procedure* "was mentioned by 12%. This means that some women did not go for VIA merely to avoid embarrassment during the VIA screening procedure which involves exposing one's private parts leading to low uptake of cervical cancer screening services. Such women risk developing cervical cancer as they are likely to present at health facilities when the disease is in advanced stage. These women should be reassured that it is done in privacy and that it is usually done by female nurses and that it does not take long meaning that they are exposed for a short time. This finding is supported by Kamphinda-Banda [16], who identified embarrassment as a barrier to cervical cancer screening programme. Such attitudes were also found in MOHCW (2000) study where women shy of being screened by male nurses whom they considered to be their sons.

Some participants, 12% claim that they "*had not made up one's mind".* These women were definitely likely to delay seeking cervical cancer screening and they need to be greatly motivated to change their minds quickly. In the VIA screening pilot study by ZMOHCW in 2000, some women perceived the absence of symptoms and pain as an indicator of well-being and health hence would believe that routine check-up and screening for cervical cancer were not necessary.

"*Lack of time,*" to go for cervical cancer screened was another reason for not going for screening mentioned by 6.1% of the participants. This means that women prioritise other issues in their lives more than preventive health issues and so would not go for the cervical cancer screening services. The other point is that women have so many responsibilities on daily basis such that cervical cancer screening would not be considered as a priority especially if the woman feels well. Women need to be motivated so that they can take care of their own health.

Three (3%) of the participants claim that "*fear of pain*" was the reason for not being screened. This means that there are some women who have heard about VIA but would not go for the test due to fear of imagined pain. Health workers should inform the women in the community that the test is painless.

Another 3% indicated that"*lack of approval by husband*" was necessary for them to be tested. This shows that there are some women who are not utilising health screening programmes as they are not liberated to make their own decision. This may imply that some cultural practises affect women's abilities to make decisions. This is similar to the findings of a study by WHO, IARC (2010) done in 6 African countries on VIA were 10% of the women postponed the procedure in order to seek permission from their husbands first. This is also echoed by Nene *et al* [17] who said there is often resistance to letting a woman go to a clinic to be screened while she is "feeling health" as she must convince her partner to give her money for transport to visit the health centre. Women must be empowered through health education to make decisions that promote their health.

As to when screening should be done, the majority of the participants (96%) indicated that women should be screened routinely for cervical cancer. This is a positive attitude and shows that most women would go for screening routinely if empowered with knowledge on cervical cancer and screening as according to Mathew, Karantza-Wadsworth, & White [18].

they would have perceived their susceptibility to cervical cancer. In their study, Were *et al* [19], found that perceptions of being at risk of cervical cancer were significantly associated with a felt need for screening.

Only 4% indicated that one should go for cervical cancer screening when having symptoms. This shows that some women did not have information about cervical cancer and its progression. Such women are not likely to present at a health facility in advanced stage of cervical cancer. Intensifying health education to the community would remove this adverse perception towards cervical cancer screening.

However, 70% of the women who were VIA tested claim that they took the test because they were in pain. This accounts for the 60% who were diagnosed when they were already in stage 3 and 4 as the women sought screening services when they already had symptoms. This is also supported by the ZMOHCW [20] study finding were women perceived the absence of symptoms and pain as an indicator of well-being and health hence routine check-up and screening were not done. On the other hand, 20% of the participants had VIA test because they wanted *peace of mind*. This shows that once women learn about cervical cancer they would be compelled to take action so they can have peace of mind. Kamphinda-Banda [16] found that having peace of mind was one of the benefits of cervical cancer screening.

Ten (10%) of the participants took the screening test upon advice from a health worker. This shows that perception are to some extend influenced by social contacts which could be in the form of advisory or motivational support. Studies have shown that social support from important people in an individual's life was essential and is a major component of health behaviour. Women normally would follow health worker's advice and this means that health workers should utilise the time that they spend with clients or patients to disseminate information.

CONCLUSION

Women of child bearing age are sexually active hence at risk of contracting HPV which causes cervical cancer. In this study, it was found that not many women were aware of cervical cancer screening using VIA test. This means that women lack knowledge on cervical cancer and screening procedures as a result they present at health facilities when they already have advanced symptoms of cervical cancer making cure unlikely .Such women consume a lot of resources be it human or material in their care and treatment modalities may prove to be expensive, ending up with increased morbidity and mortality of women due to cervical cancer. If the women are given information, the uptake rate of VIAC would increase from 0.01% and the mortality rate from cancer of the cervix will be reduced.

Acknowledgements

There searchers wish to acknowledge the Medical Superintendent of Kwekwe General Hospital for allowing us to conduct the research at Hospital and all the participants who took part in the study.

Conflict of interest: Nil.

Financial support and sponsorship: Nil.

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