

**KNOWLEDGE AND PERCEPTIONS OF WOMEN ON RISK FACTORS ASSOCIATED WITH
CANCER OF THE CERVIX IN AWKA SOUTH COUNCIL AREA OF ANAMBRA STATE,
NIGERIA**

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Abstract

The subjective nature of knowledge and perception often cast doubts on the bio-medical explanations of cancer. Some cancer types are influenced by non-medical factors such as age, gender, race, diet and other environmental factors. There are also several real or imaginary beliefs across societies about causes and risk factors associated with cancer. The study examined perceptions of women in Awka South council area of Anambra state of Nigeria on risk factors associated with Cancer of the Cervix. The social cognitive theory was used as the theoretical framework. A combination of cluster, purposive, convenient and accidental sampling techniques was adopted in selecting 398 respondents. However 385 copies of questionnaire were returned and analysed. Findings reveal that knowledge about the risk factors of cervical cancer was generally low. Their low knowledge of risk factors negatively influenced their perception of the disease. Among the proportion of women who claimed to have known about the features of cervical cancer disease, majority of them are aware of its causative organism as Human Papiloma Virus and also know that multiple sexual partners is a risk factor of the disease. However, apart from these two areas of knowledge, they seem to be ignorant or scored low in their knowledge of other risk factors. It was therefore recommended that the Anambra State Ministry of Health should develop aggressive cervical cancer awareness and sensitization programme for women in the area. She should also make available screening centres and start of HPV vaccination among young girls as prevention against cervical cancer.

Key words: Knowledge, Perceptions, Cancer, Cervix, Human Papiloma Virus

Introduction

The prevalence of cancer across the globe has become an issue of concern to international community and health organizations across the world. The incidence of cancer affects a significant number of people and amount to enormous economic cost. It is a serious disease affecting the health of women globally. According to Sakaranarayan (2014), cervical cancer is the fourth most common gynaecological cancers with 80 percent of the global burden in low and middle-income countries (LMICs).

In a comparative analysis of 20 global and African countries, trends of cervical cancer and incidence of cervical cancer was high in the African countries. For global mortality trends of cervical cancer, out of the 20 countries with High mortality, 18 were in Africa: while of the global mortality by absolute members, out of 20 to high mortality nations, 7 are African countries with Nigeria having the highest numbers. In 2012, Malawi had the highest rate of cervical cancer followed by Mozambique and Comoros. About 84% of cervical cancer cases occurred in less developed countries. According to the Committee Encouraging Corporate Philanthropy (2015), cervical cancer kills about one woman every hour in Nigeria. Women in

their 30s, 40s and 50s are the major victims of cervical cancer. Yet this is the age brackets that are expected to yield highest return for investments in their lives. The most distressing part is that these are avoidable deaths. Deaths that result from cancer have robbed and continued to rob the nation of the contributions of great women in their prime. Cervical cancer results in deaths of women when they are most strategically located to contribute greatly to women development and that of the larger society. Cervical cancer attacks both the rich and the poor and does not respect socio-economic position.

Many women who are infected by the disease do not actually have the knowledge of being infected. The pervading problem of late diagnoses leads to many regrettable and painful deaths of women. In fact, studies show that even health professionals in Nigeria have not embraced vaccination and screening practices in a measure expected of people that should know better (Oche, Kaoje, Gana, & Ango, 2013). This is despite the global efforts to control the spread of cervical cancer disease through knowledge of the disease and uptake of screening tests, many women are yet uninformed about the seriousness of the disease and many of them lack access to knowledge about the screening services due to various socio-cultural factors that constitute serious obstacles to it. The situation of rural women who are largely poor, ignorant and uneducated can only be worse in terms of knowledge of dangers of cervical cancer and attitude to its prevention. The case of rural women is also compounded because of the near total absence of facilities for screening and treatment. Indeed, studies carried out at different times across the country show low level of awareness on their part (Abiodun, Fatungase, & Olu-Abiodun, 2014).

As a result of the severity of this disease across the globe, many studies have been carried out regarding women's knowledge in relation to the uptake of the cervical cancer screening (Ahmed, Sabitu, Idris & Ahmed, 2013; Chika, Ekeleme, Iwuoha & Awa, 2017; Dulla, Daka & Wakgari, 2017; Tapera, Manyala, Erick, Maswabi, Tumoyagae, Letsholo & Mbongwe, 2017).

However, little is known about how knowledgeable women in Awka South L.G.A are with regards to the features (risks, signs and symptoms) of the cervical cancer disease; as well as the uptake level of the cervical cancer screening services. This is due to the fact that studies relating to these have remained unexplored within the context of Awka South L.G.A, as far as the researcher knows. It is therefore against this backdrop that this study is positioned to investigate the perceptions of women in Awka South LGA on risk factors associated with cancer of the cervix.

Research Question

What are the perceptions of women in Awka South LGA on risk factors associated with cancer of the cervix?

Study Hypothesis

There is a significant relationship between knowledge of risks associated with cervical cancer and uptake of cervical cancer screening among women of reproductive age in Awka South L.G.A, Anambra state.

Literature Review

Concept of Cervical Cancer This refers to cancer that arises from the cervix. It is a disease that is peculiar to women, and has adverse effect on their sexual and reproductive health as well as their general condition and family life (Obalase, Akindutire, Adelusi & Adegboro, 2017). It occurs due to the abnormal growth of cells that have the ability to invade or spread to other parts of the body. From the onset, no symptoms are seen; later on, symptoms may include abnormal vaginal bleeding, pelvic pain, or pain during sexual intercourse (National Cancer Institute, 2007). In advanced disease, metastases (cancer spread) may be present in the abdomen, lungs, or elsewhere ("Understanding Advanced Cancer," n.d). Wong, Wong, Low, Khoo and Shuib (2009) defined cervical cancer as a malignant disease of the cervix usually occurring in the 5th or 6th decade of life at a mean age of 54 years. According to Abotchie and Shokar (2009), the disease has a pre-malignant stage which usually occurs in younger women under the age of 40. They also maintained that deaths resulting from cervical cancer are tragic as this type of cancer develops slowly and has a

detectable precursor condition, known as carcinoma, which is treatable and can be prevented through screening

Risk Factors Associated With Cervical Cancer Risks of cervical cancer have been documented in extant literature. This sub-section contains scholars' views about the risk factors on cervical cancer. According to Chika, Ekeleme, Iwuoha and Awa (2017), not all risk factors of cervical cancer are known, but most cervical cancers are caused by Human Papilloma Virus (HPV) infection (a very common virus that infects the skin cells in the genital areas of men and women), with two prominent types, (16 and 18) which are responsible for about 70% of all cases infection with some types of HPV. This is followed by smoking and HIV infection (Gadducci, Barsotti, Cosio, Domenici & Riccardo, 2011). Women who have sex with men who have many other sexual partners or women who have many sexual partners have a greater risk of cervical cancer (Canavan & Doshi, 2005; Marrazzo, Koutsky, Kiviat, Kuypers & Stine, 2001).

Long-term use of oral contraceptives has also been associated with increased risk of cervical cancer. Women who have used oral contraceptives for 5 to 9 years have about three times the incidence of invasive cancer, and those who used them for 10 years or longer have about four times the risk (National Institutes of Health, National Cancer Institute, 2015).

Furthermore, having many pregnancies is associated with an increased risk of cervical cancer. Among HPV-infected women, those who have had seven or more full-term pregnancies have around four times the risk of cancer compared with women with no pregnancies, and two to three times the risk of women who have had one or two full-term pregnancies (National Institutes of Health, National Cancer Institute, 2015).

Cervical Cancer Screening Cervical cancer screening is used to find changes in the cells of the cervix that could lead to cancer. The cervix is the opening to the uterus and is located at the top of the vagina. Cancer of the cervix is a preventable disease and a key aspect of its prevention is the detection of the premalignant form by cervical screening; it is also one type of cancer that can be prevented and cured if detected early enough (Canavan & Doshi, 2000). This brings to fore the concept of cervical cancer screening. Research by American College of Obstetricians and Gynaecologists (2017) has shown that it usually takes 3–7 years for high grade changes in cervical cells to become cancer. Thus, cervical cancer screening may detect these changes before they become cancer. Women with low-grade changes can be tested more frequently to see if their cells go back to normal. Women with high-grade changes can get treatment to have the cells removed.

According to Centres for Disease Control and Prevention (CDC) (2016), cervical cancer screening is very important because cervical cancer often does not have symptoms until it is advanced. Hence it is very important that women get screened when they still feel healthy. This is why The American Cancer Society (2012) as cited in Chika et al. (2017) recommended that: all women should begin cervical screening at 21 years; a 3 year interval can be considered in the age group 21 to 29 years. Between 30-65 years women should have Pap test and HPV test every 5 years or preferably, to have Pap smear every 3 years. Women who have had the HPV vaccine should follow the screening recommendations for their age group.

Theoretical Framework

This theory was propounded by Bandura (1986). According to the theory, knowledge of health risks and benefits creates the precondition for change. If people lack knowledge about how their lifestyle habits affect their health, they have little reason to put themselves through the travail of changing the detrimental habits they enjoy (Bandura, 2004). However, additional self-influences are needed for most people to overcome the impediments to adopting new lifestyle habits and maintaining them. Beliefs of personal efficacy play a central role in personal change. This focal belief is the foundation of human motivation and action (Musa et al., 2017). Unless people believe they can produce desired effects by their actions, they have little incentive to act or to persevere in the face of difficulties. Whatever other factors may serve as guides and motivators, they are rooted in the core belief that one has the power to produce desired changes by one's actions.

According to Bandura, health behaviour is also affected by the outcomes people expect their actions to produce. The outcome expectations take several forms. The physical outcomes include the pleasurable and aversive effects of the behaviour and the accompanying material losses and benefits. Behaviour is also partly regulated by the social reactions it evokes. The social approval and disapproval the behaviour produces in one's interpersonal relationships is the second major class of outcomes. This third set of outcomes concerns the positive and negative self-evaluative reactions to one's health behaviour and health status. People adopt personal standards and regulate their behaviour by their self-evaluative reactions. They do things that give them self-satisfaction and self-worth and refrain from behaving in ways that breed self-dissatisfaction. In this premise, Bandura argued that even when the society puts efforts to get people to adopt healthful practices, she relies heavily on public health campaigns; these population-based approaches promote changes mainly in people with high perceived efficacy for self-management and positive expectations that the prescribed changes will improve their health.

Applying this theory to this discourse, it therefore goes to assume that women who have knowledge of health risks and benefits associated with cervical cancer screening, would likely opt for the screening compared to those who lack the knowledge. Also, knowledge only may not serve as a determinant of cervical cancer screening among many women. Those who have higher self-efficacy about handling the outcomes of the test may likely opt for the test compared to those with relatively lower self-efficacy.

This theory however has been criticised for its focus on the cognitive aspect of behaviour with respect to health seeking and ignoring the social-cultural and economic conditions that may inform women's choice of opting or not opting for cervical cancer screening such as perceived cost of the test, availability and access to health facilities, cultural values with regards to such diseases etc.

Method

The study investigated knowledge and perceptions of women on risk factors associated with cancer of the cervix. The research adopted mixed research approach (Kroll & Neri 2009), which is inclusive of quantitative and qualitative methods. The data were gathered concurrently as it enabled the researcher to gather a wide range of relevant data at specific point in time. The population of study was projected to the current year (i.e., 2019), the area has a population of 256,033. This is calculated using this formula: $N_t = P e^{(r * t)}$. The population for this study however were all females of reproductive age. The population was later sampled to 398 using the Yamane (1967) formula which provides a simplified method of calculating sample sized for finite (known) population using 95% confidence level and 5% or 0.05 margin of error

The study was conducted in Awka South Local Government Area (L.G.A) of Anambra State. It is one of the 21 L.G.As in Anambra state of Nigeria, strategically located midway between two major cities in Northern Igbo land, Onitsha and Enugu. The study combined cluster, purposive, convenient and accidental sampling techniques. The qualitative data for this study was collected through Focus Group Discussion (FGD) guide. This instrument was considered relevant for this study because it helped to obtain additional information that helped to give a clearer picture of the quantitative data, and it permit the exploration of other ideas on the research topic that the questionnaire may not sufficiently capture researcher purposefully selected 12 participants for two (2) different sessions of Focus Group Discussion. Some of the FGD questions include; one session was conducted in the semi-urban locations and another session will also be conducted in the rural locations. This helped to gain insights in the variation of attitudes, perceptions and experiences of women regarding cervical cancer screening within the semi-urban and rural locations. Also, four (4) health workers (2 from semi-urban health facilities and the other two from rural health facilities) were interviewed. The data were collected between May and July, 2020, and a sample size of 398 was drawn from the projected population women using Taro Yamane's (1967) guideline

The quantitative data collected was processed using the Statistical Package for Social Sciences (SPSS) statistical software. This software aided in quick processing and analysis of all essential statistics needed for

this study. However, descriptive statistics such as frequency counts and tables, simple percentages, and graphical illustrations were used to analyse, present and describe the data. Furthermore, the qualitative data was analysed using thematic content analysis method. In this method, the researcher read the field notes and transcripts to gain a deeper view of the body and content of the data collected. This was followed by coding and organizing the variables and ideas in the data under distinct themes. Each theme was discussed and necessary illustrative quotes were extracted to support the quantitative data

Findings

Table 1: Composite Data on the Socio-demographic Characteristics of the Respondents

Socio-Demographic Variables	Frequency	Percent	
Age Categories			
15 - 21 Years	96	24.9	
22 - 28 Years	108	28.1	
29 - 35 Years	105	27.3	
36 - 42 Years	52	13.5	
43 - 49 Years	24	6.2	
Total	385	100.0	
Marital Status			
Single	188	48.8	
Married	152	39.5	
Divorced	6	1.6	
Separated	14	3.6	
Widowed	25	6.5	
Total	385	100.0	
Educational Qualification			
No formal education	11	2.9	
First School leaving certificate	3	.8	
GCE/SSCE/WAEC	190	49.4	
OND/NCE	76	19.7	
HND/B.Sc	97	25.2	
M.Sc/Ph.d	8	2.1	
Total	385	100.0	
Occupational Status			
Unemployed	144	37.4	
Employed	241	62.6	
Total	385	100.0	
Nature of Job Employment			
Formal	Government/Public Service	46	11.9
	Private Sector	61	15.8
Informal	Self Employed (petty business/trading)	91	23.6
	Skilled Labour	36	9.4
	Others	7	1.8
Sub-Total	241	62.6	
Missing Values	144	37.4	
Total	385	100.0	

Researcher's Data Analysis, 2021

The table contains the summary of all the socio-demographic characteristics of the respondents as articulated in this present study. It was discovered that the minimum age in the present study’s samples was 15 years; while the maximum age was 49 years; with mean age of 28.6 years. However, a majority (28.1%) of the respondents were women aged between 22 – 28 years, 27.3% of them aged between 29-35 years; while the smallest proportion (6.2%) of them were older women aged between 43-49 years.

The samples comprised of 48.8% of single women and 39.5% of married women of reproductive ages. Respondents who were divorced or separated were approximately 5.2% of the sample (1.6% and 3.6% respectively). This shows that divorce and separation rate was somewhat low among women in Awka South L.G.A. In addition, data analysis showed that 6.5% of the women were widowed.

With regard to educational qualification, a majority (49.4%) of the respondents completed the secondary level of education. Approximately 47.0% of the respondents attended up to the tertiary level of education, out of which 19.7% of them only completed Diploma/NCE level, 25.2% of them completed up to the first degree level and only a very lower proportion (2.1%) of them completed up to the post-graduate level. This finding shows that female education in the present study area is somewhat impressive, even though about half proportion of them could not attend up to the higher education.

Data analysis shows that a relatively majority (62.6%) of the respondents were employed, while a lower proportion (37.4%) of them were unemployed. Among those who were employed, data analysis shows that they varied in their occupations. Among those who were employed, 11.9% of them were employed within the government/public services, 15.8% of them were employed within the private sector. Furthermore, those who were informally employed were approximately majority (34.9%) – comprising of 23.6% of them that were engaged in self-employed/petty businesses/trading, and 9.4% of them that were engaged in skilled labour, and 1.8% of them that were engaged in other employment activities.

Analysis of Research Question: What are the perceptions of women in Awka South LGA on risk factors associated with cancer of the cervix? This question was answered through the descriptive data analysis conducted on the responses of the respondents in relation to questionnaire item 8.

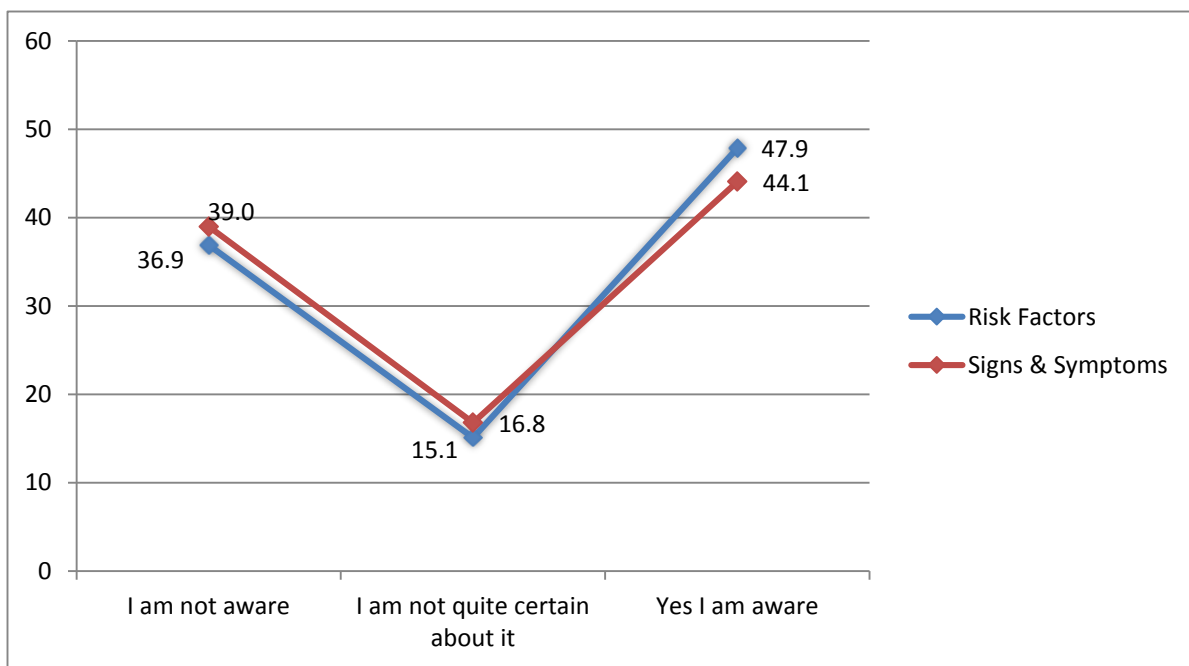
Table 2: Respondents’ Knowledge about risk of Cervical Cancer Disease

	I am not aware	I am not quite certain about it	Yes I am aware	Total
Knowledge about Risk Factors				
Human Papiloma Virus	53 (26.1%)	15 (7.4%)	135 (66.5%)	203 (100.0%)
Multiple sexual contact	57 (28.1%)	23 (11.3%)	123 (60.6%)	203 (100.0%)
Long term use of contraceptives	87 (42.9%)	36 (17.7%)	80 (39.4%)	203 (100.0%)
Smoking	81 (39.9%)	41 (20.2%)	81 (39.9%)	203 (100.0%)
HIV infection	95 (46.8%)	33 (16.3%)	75 (36.9%)	203 (100.0%)
Many pregnancies	77 (37.9%)	36 (17.7%)	90 (44.3%)	203 (100.0%)

Researcher’s Data Analysis, 2021

To further assess respondents’ knowledge about cervical cancer, those who claimed knowledge about the disease were asked to indicate what they knew about the risk factors, as well as the signs and symptoms of the disease. Analysis of data proved that a significant proportion (66.5%) of the respondents claimed they

knew that human papiloma virus is a major risk factor of the disease. Another significant proportion (60.6%) equally indicated that they were aware of the fact that multiple sexual partners is a significant risk factor of the disease. Knowledge about long term use of contraceptives as a risk factor of cervical cancer was somewhat low among the respondents, as only 39.4% of them indicated being aware of that fact, while a higher proportion (42.9%) indicated being unaware of that. Furthermore, the proportion (39.9%) of the respondents who indicated being aware that smoking is a risk factor of cervical cancer disease, was the same with the proportion (39.9%) of them who indicated being unaware of that fact. More so, the proportion (46.8%) of the respondents who indicated being unaware that HIV infection is a risk factor of cervical cancer, was greater than those who indicated being aware of such fact. This implies that a significant number of women are unaware that HIV infection is a risk factor towards cervical cancer disease.



Summative data Analysis on Respondents’ Knowledge about the Features of Cervical Cancer

The summed data analysis (all the items combined) showed that women’s knowledge about the features of cervical cancer was fairly impressive within the present study area. However, it only shows that only about half proportion (47.9%) of the women could tell about all the major risk factors of cervical cancer disease while about 39.0% of them were totally unaware about the risk factors. In addition, close to half proportion (44.1%) of the respondents could tell about the signs and symptoms of cervical cancer disease, while 36.9% of them could not tell about it. This finding implies that even though a significant number of women claimed to be aware of the features of cervical cancer disease, a significant proportion of them are equally ignorant about such features.

Test of Study Hypothesis

There is a significant relationship between knowledge of risks associated with cervical cancer and uptake of cervical cancer screening among women of reproductive age in Awka South L.G.A, Anambra State.

In testing the above hypothesis, the six items measuring knowledge about risk factors of cervical cancer as shown in Table 2 above, were summed together and used in cross tabulation with the data measuring uptake

of cervical cancer screening as contained in questionnaire item 16. Results of the statistical test are presented in table 3 below.

Table 3: Table of Binary Regression Showing the Relationship Between Knowledge of risks Associated with Cervical Cancer and Uptake of Cervical Cancer Screening Services

	B	S.E.	Wald	df	Sig.	Exp(B)	-2 Log likelihood	Nagelkerke R Square
Risk Factors of Cervical Cancer	.781	.321	5.925	1	.015	.781	165.668 ^a	.064
Constant	-3.143	.854	13.553	1	.000	.043		

The binary regression was performed to test if there was a relationship between women’s knowledge about the risks associated with cervical cancer disease and their propensity to opt for cervical cancer screening services in Awka South L.G.A. The model was statistically significant, $\chi^2(1) = 5.925, p = .015$. This implies that the stated alternate hypothesis is retained. In order words, the propensity to opt for cervical cancer screening would increase if women become knowledgeable about the risks associated with cervical cancer disease

Discussion

This study examined women’s knowledge and perception on the risk factors of cervical cancer. Knowledge about the risk factors of cervical cancer was found to be low among the proportion of women who claimed to have known about the features of the disease. Majority of them could only identify human papiloma virus and having multiple sexual partners as major risk factors of the disease. However, knowledge of other risk factors was low among them. Equally, a majority of them could only identify pain in the pelvis/during sexual intercourse and abnormal/heavy/irregular menstruation, as the major signs and symptoms of the disease. It must be noted that findings of this present study equally agreed with the findings of similar studies conducted at other parts of Nigeria most of, which also reported lower knowledge about cervical cancer and its features among their samples (Ahmed et al, 2013; Mbamara et al, 2011).

The policy implication of this finding therefore is that public health education need to be carried out on regular basis to control the menace of cervical cancer disease within the study area and across various geographical domains in Nigeria,. In particular, it must be emphasized that, the propensity to opt for cervical cancer screening would increase if women become knowledgeable about the risks associated with cervical cancer disease

Conclusion

The major objective of this study was to examine knowledge and perception of women on the uptake of cervical cancer screening services among women of reproductive ages in Awka South L.G.A, Anambra State, Nigeria. The study was set with the view that cervical cancer is a deadly disease that significant number of women may be unaware of, and lack of knowledge about the health risks of such disease could result in deaths that could have been prevented with just knowledge of its risks and preventive measures. Based on the various analysis conducted in line with the objectives set out in this study, the researcher therefore concludes that knowledge about cervical cancer and its features among women in the present study area remains minimal and this could be associated with certain socio-cultural and economic factors including lack of proper public sensitization about the dangers of the disease, lack of viable screening centres, perceived cost of the screening services, among others. In order to improve women’s knowledge about cervical cancer its features and encourage positive perception in Anambra State, particularly in Awka South L.G.A, government health institutions, the media, religious institutions and communities have significant roles to play. The members of the society need to be informed about these emerging forms of diseases because knowledge is key to decisions regarding healthcare. People do not often attach much importance to

issues they do not have proper information about. Against this backdrop, some recommendations are proffered in the following sub-section.

Recommendations

In view of the areas of gap in this study, the following are recommended.

1. Considering the fact that knowledge about cervical cancer and its features was found to be sub-optimal among women in the study area, it is recommended that Anambra State Ministry of Health should develop aggressive cervical cancer sensitization programmes, in partnership with various community groups, religious organization, as well as the media. Such programmes could be carried out using health talks in churches; community outreach programmes designed for the women and radio as well as television jingles.
2. It is equally important that the Ministry of Health ensures that every healthcare centres both public and private in the State, incorporate cervical cancer awareness and sensitization among women seeking healthcare in their routine healthcare activities.
3. There is equally the need for the establishment of a dedicated/central cervical care center that would only function for cervical testing as well as treatment. Services offered in such centres should e be subsidized to allow large proportion of women who may be constrained by lack of finance, to get involved in the testing procedures.

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