Knowledge, Beliefs About Cervical Cancer Among Women of Childbearing Age in Abia State

Elizabeth Chibuzor Okafor[1*]& E. S. Samuel[2]
[1, 2] Department of Human Kinetic and Health Education, University of Nigeria, Nsukka
* Corresponding Author

Abstract

The purpose of the study was to determine the knowledge, beliefs about cervical cancer among women of childbearing age (WCA) in Abia State. The descriptive survey research design was used for the study. The population of the study comprised of 766,723 WCA in Abia State. The sample size for the study consisted of 630 respondents, selected using multistage sampling procedure. The instruments for data collection were the researcher's structured questionnaire and focus group discussion guide which were validated by three research experts from Department of Human Kinetic and Health Education, University of Nigeria, Nsukka. The reliability of the instruments was also established and reliability co-efficient of .74 was obtained. Data collected were analysed using means, frequencies and percentages. The results of the findings showed that the level of knowledge of cervical cancer by WCA were low (39.18%). Majority (89.8%) of WCA did not believe that cervical cancer is for old women, is never curable, is caused by evil spirits, witchcrafts or enemies and that screening is for married women only. There was significant difference in the level of knowledge of cervical cancer by WCA based on age and level of education, ($p<0.05$). Based on the findings, conclusions were drawn and it was recommended that WCA should be educated on cervical cancer to create awareness using cervical cancer prevention programme (CCPP) developed by the author.

Keywords: *Cervical Cancer, Knowledge, Belief, Women of Childbearing Age*

Introduction

Cervical cancer is a serious public health problem facing women all over the world. It is even a more serious health problem in the developing countries like Nigeria as the incidence as fast growing in Sub-Sahara Africa (Alliance for Cervical Cancer Prevention ACCP, 2004). According to Sheries, Herdman and Elias (2001), the incidence of cervical cancer is highest in central and Latin America, South Asia, Sub-Sahara Africa and Melanesia. For instance, an incident rate of 54 per 100,000 and 46 per 100,000 is reported in Zimbabwe and Guinea respectively (Program for Appropriate Technology on Health- PATH 2000). It has become a rare disease in developed countries due to high level of awareness and screening programmes. Evidence of the decline in the incidence has been observed in countries like United State of America (USA) where there is established screening protocol (Ndikom and Ofi, 2012). China has observed an increased in the cervical cancer incidence rate in younger females (25-44years of age) within a context of a growing cancer burden (Hong, Zhang, Li, Lin&Liu, 2013). For instance, in China the incidence rate, of cervical cancer was 0.21 per 100,000 among women aged 20 to 24 from 1988 to 1992 but jumped to 1.35 per 100,000 from 1998 to 2002. The problems associated with cervical cancer incidence include late reporting, cultural issues, ignorance or lack of awareness, nonchalant attitude to health and financial constraint of women (Sue, 2006; Anorlu, 2008; Marliyya, 2010).

The true incidence of cervical cancer in many African countries is unknown as there is gross under reporting. Only very few countries have functional cancer registries and record keeping is minimal or non-existent in many countries. Some figures quoted in the literature are hospital based which represent a small fraction of women dying from cervical cancer as most women cannot access hospital care and die at home (Anorlu, 2008). A mortality rate of 35 per 100,000 is reported in Eastern Africa, the reported mortality rate in developed countries with successful screening programmes seldom exceed 5 per 100,000 women (Parkin, whelam & Ferley, 2002). McCarey, Pirek, Tebeu, Boulvain, Doh and Petignat (2011) observed that limited access to screening and treatment facilities is the main reason for high incidence of cervical cancer in low resource setting countries. They posited that countries that have organized screening programmes have substantially reduced cervical cancer incidence and mortality. The actual burden of the disease in Nigeria is unknown due to lack of

adequate cancer statistics. However, Ndikom and Ofi (2012) reported that records from cancer registry at University College Hospital (UCH), Ibadan indicated that the incidence is high. It was 353 out of 1942 of total malignancies in 2007 (Ndikom & Ofi, 2012).

The impact of cervical cancer in developing countries is huge. Cervical cancer is the leading cause of cancer death among women in developing countries (Ashford & Collymore, 2004). It is the second most common cancer in women worldwide and the most common in developing countries which bear eighty percent of the global burden of the disease (World Health Organization WHO, 2010). It is the second leading cancer among women after breast cancer in Nigeria (Anorlu, 2008). Marliyya (2010) stated that it is the commonest malignancy among women in Northern Nigeria. At Lagos University Teaching Hospital LUTH, 4-6 new cases of advanced cervical cancer are seen each week (Anorlu, 2008). Many of these women go untreated, mostly due to lack of access to health care and cultural constraints. Women in sub-Sahara Africa die more of cervical cancer than any other type of cancer (Anorlu, 2008). Unfortunately, it affects them at a time of life when they are socially and economically relevant to their families.

Globally, over a million women currently have cervical cancer (World Health Organisation, WHO, 2014). In 2012, 528,000 new cases were diagnosed and 266,000 women died from the disease and nearly 90 per cent are from developing countries. The situation is now complicated by high prevalence of Human Immuno Deficiency Virus (HIV) infection which is associated with rapid progression of invasive cervical cancer (Urasa & Darj, 2011). Cervical cancer is the single largest killer of middle age woman in Nigeria (Anorlu, 2008). The disease occurs in women thirty-five years and forty years, then reaches a maximum in women in their fifties and sixties (ACCP, 2004).

Cervical cancer is a disease that results from changes in the cells in the cervix which progress to become cancerous overtime and can invade nearby tissues and other organs. ACCP, (2004) defined cervical cancer as a disease that results from abnormal growth and division of cells at the cervix, if left untreated will become cancerous. Cervical cancer is a malignant disease that occurs at the cervix and metastasize (spread) to other parts and organs of the body (Monga & Dobbs, 2011). Obiekwe (2012) described cervical cancer as a malignant disease that occurs at the cells of cervix, the lower portion of the uterus that connects to the vagina. Cervical cancer is caused by Human Papilloma Virus – HPV (WHO, 2013). HPV is a virus that infect the skin and mucus membrane of humans and a variety of animals. HPV live only in squamous epithelial cells in the body (skin, cervix, vagina, anus, vulva, head of penis, mouth and throat). HPV is transmitted through sexual contact thus making it one of the most common causes of sexually transmitted infections (STls) in the world (Anorlu, 2008). It is associated with risk factors. Risk factors are anything that affects your chance of getting a disease, such as cancer, that encourages the occurrence or incidence of a diseases.

Risk factors identified are early age of sexual activity, multiple sexual partners, sexually transmitted infections (STs) such as Chlamydia infection, smoking, poor nutrition (lack of antioxidants like vitamin A & E in diet), long use of oral contraceptives low socio-economic status and parity, Human Immuno Deficiency Virus (sue, 2006; Anorlu, 2008;
Ademolekan, 2010). HIV and HPV act in synergy to cause cervical cancer (Eyo & Ekpo, 2014). HIV infection is associated with rapid progression of invasive cervical cancer. This was confirmed by (Urasa &Darj 2011) who stated that cervical cancer appears 10years earlier in HIV positive women and is at a more advance stage when diagnosed and more likely to cause death compared to HIV negative women; as symptoms do not manifest immediately.

Early sign of cervical cancer and pre-cancer are asymptomatic. Symptoms often do not begin until the cancer becomes invasive and grows to nearby tissues (National Cancer Institute of Health – NCIH (2012). It can only be defected with regular check-ups. The most common symptoms are abnormal vaginal bleeding, such as bleeding after vaginal intercourse, bleeding after menopause, bleeding and spotting between periods and having menstrual periods that are longer or heavier than usual (Anorlu, 2008). The author further outlined other possible signs of cervical cancer to include unusual vaginal discharge, pain during sexual intercourse, backache, pelvic pain and lower abdominal pain. Symptoms of advanced cervical cancer include loss of appetite, weight loss, fatigue, leg pain, single swollen leg, heavy bleeding from the vagina, leaking of urine or faces from vagina and bone fractures (Anorlu, 2008).

Women present with symptoms of advanced cervical cancer due to lack of knowledge on the preventive measures. Prevention is the act of stopping something bad from happening. It is the action

taken to forestalls the progress, of a disease. Prevention of cervical cancer is action taken to detect abnormal lesions or early cervical cancer to prevent it from progressing to invasive cancer. It is classified into three levels, namely, primary prevention, secondary prevention and tertiary prevention. Primary prevention of cervical cancer is the prevention of HPV infection (WHO, 2013), these includes education on lifestyle that minimizes the risk factors for HPV infection and cervical cancer and administration of vaccines to young girls. Secondary prevention of cervical cancer means preventing development of cervical cancer. It involves screening and treatment of precancerous lesions (WHO, 2013). The screening tests are pap smear or cytology test which is the most popular one and Visual Inspection with Acetic Acid (VIA) which is recommended for developing countries. Prevention of cervical cancer at the tertiary level is the diagnosis of cervical cancer and treatment. The treatment is based on the stage of the disease.

There are some socio-demographic factors that may influence women's knowledge of cervical cancer. These variables are age, level of education and among others. Urasa and Darj (2011) reported in their study of knowledge of cervical cancer and screening practices of nurses at a regional hospital in Tanzania that younger nurses (< 30 years) had more knowledge compared to those aged above 30 years. He explained that the younger nurses have recently come out of nursing school compared to older ones. The same observation was identified by Hong et al (2013) in their study of HPV and cervical cancer related knowledge and awareness and testing behaviours in a community of female sex workers in China, that knowledge was higher among younger female sex workers. Level of education is another variable that tend to influence women's knowledge of cervical cancer. Siddharhar, Rajkumar, and Devivasgam (2014) observed that level of education had a significant impact in the knowledge of screening of cervical cancer. This was identified in their study of women attending a tertiary care hospital in puduchery, India, that women who had tertiary education had more knowledge compared to those with lower education (Primary & secondary). Antic et al (2014) also found out that there is significant difference in level of education of knowledge of prevention of cervical cancer, that college educated women often go for preventive measure of cervical cancer in comparison with those with only primary school education. (OR =1.95% Cl 117-1.72).

Several studies have shown poor knowledge of the disease in Africa, which even cut across different literacy levels (Anorlu, Orakwe & Oyeneyi, 2004; Ebu, Mupepi, Siakwa & Sampselle, 2014). Anorlu (2008) reported that among 500 attendees of a maternal and child health clinic in Lagos, Nigeria, only 4.3 percent were found to be aware of cervical cancer. The author further reported that 81.7 per cent of 139 patients with advance cervical cancer in Lagos, Nigeria had never heard of cervical cancer before. A study conducted by Onwere, Okoro and Chigbu (2009) on knowledge and practice of cervical cancer screening using pap smear among 100 women attending antenatal clinic at Abia State University Teaching Hospital Aba, Abia State Nigeria showed only 30 per cent had heard of cervical cancer, 4 percent of the respondents had learned about pap smear and non knew what pap smear screened for. None of the respondent had done the test.

Knowledge is information or experiences one acquires to enable him resolve his health problems and health needs within his locality. Nnachi, (2007) defined knowledge as the accumulation of information for the solution of day to day human and environmental problem. Education on cervical cancer is important as knowledge gained will enable women of childbearing age to adopt preventive measures, since it affects women at a time they are socially or economically relevant to their families.

Women of childbearing age are women in their reproductive age. According to Nigeria Demographic and Health Survey, NDHS, 2008, Women of Childbearing Age (WCA) are females in the age of 15-49 years. Sichanh, Quet, Chanthavilay, Diendere, Latthapnasavang, Lengnet et al. (2014) observed that WCA are at risk of contracting cervical cancer and HIV because of biological, social and cultural factors. Biologically, WCA have unprotected sex and cervical cancer strike women in their reproductive age. Socially, poverty which is a risk factor for cervical cancer (Akwara, Madise & Hinde, 2003) is rampant in Nigeria. They stated that women with low socio-economic status are more likely to have unprotected sex and multiple sexual partners, hence exposing them to Human Papillomia Virus (HPV). Then culturally, polygamy is accepted in Nigeria, polygamous marriages expose WCA to HPV (Anorlu, 2008). However, some cultural issues tend to influence women's attitude towards cervical cancer. Some women have been influenced by their culture to belief that cervical cancer is caused by evil spirits, witchcrafts, or enemies.

Belief is a feeling that something is good, right or valuable. Belief is an assumed truth. Inozu (2011) defined belief as psychological prepositions about the world that are felt to be true. Formation of beliefs takes time and individuals attach great importance to their beliefs and act in accordance with it. WCA should be educated on cervical cancer since education improves knowledge and acceptability to scientific information against misconception of cervical cancer.

Research Question

Two questions and one hypothesis guided the study and they are;

1. What is the level of knowledge of cervical cancer by WCA in Abia State?
2. What is the belief of WCA about cervical cancer?

Hypothesis

There is no significant difference in the level of knowledge of cervical cancer by WCA according to age and level of education.

Methods

The descriptive survey research design was used for this study. Descriptive research design gathers data at a particular point in time with the intention of describing the existing condition. It describes conditions or situations of what is being investigated as they exist in their natural setting (Ali, 2006). The population for the study comprised 766,723 WCA in Abia State. A sample size of six hundred and thirty (630) WCA, determined using Cohen, Manion and Morison (2011). The multi-stage sampling procedure was employed to draw the sample for the study. The procedure involves four stages. In the first the stage, simple random sampling technique of nine (9) out of seventeen (17) Local Government Areas (LGAs) in Abia State through balloting without replacement. The second state involved systematic random sampling to select one in every ten autonomous communities each from three hundred and eighty-three (383) autonomous communities in the nine selected LGAs. This resulted to a total of thirty-five (35) autonomous communities, resulting in 208 villages. In another stage, purposive sampling technique was employed to draw two villages each from the thirty-five autonomous communities. The procedure provided a total of seventy (70) villages. The fourth stage involved picking of respondents through convenience sampling, that is, choosing the nearest study subjects to serve as respondents and continuing that process until the required sample has been obtained.

Two instruments were used for data collection: namely Cervical Cancer Knowledge and Beliefs Questionnaire (CCKBQ) and Focus Group Discussion Guide. (FGDG) CCKB was designed by the researcher to generate the quantitative data. The questionnaires were divided into three sections. Section A consisted of two items demanding the bio-data (age and level of education) of the respondents. Section B comprised of 42 items on knowledge of cervical cancer (concept, causative agent, mode of transmission, signs and symptoms, risk factors, preventive measures and screening). Section C contained 6 items on belief of WCA regarding cervical cancer. The FGDG consisted of open ended questions and was used to elicit the in depth qualitative information on cervical cancer knowledge and beliefs of WCA. Three experts in the department of Human Kinetics and Health Education, University of Nigeria Nsukka validated the instruments. Split-half methods was used to established the internal consistency of CCKBQ. Data generated were used to compute the Cronbach alpha coefficient using statistical package for social science (SPSS). A reliability coefficient index of .74 was obtained. This was considered high enough for the study. The distribution and collection of the questionnaires was facilitated by the assistance of three research assistants who were brief on the administration of the instrument and ensuring that the respondents responds to the items independently. The completed copies of the instrument were collected on the spot to ensure high return rate. Six hundred and five (605) were duly completed and returned. Mean, frequency and percentage were used for data analysis. Okafor's criteria (Okafor, 1997) were used to determine the level of knowledge of cervical cancer. By these criteria, below 40 percent score of the respondent was considered low knowledge, 40-59 percent was considered moderate knowledge, a score of 60-80 percent was considered high knowledge while 80 percent was considered very high knowledge. ANOVA statistic was used in testing the null hypotheses at .05 level of significance. This is because the data generated is a continuous data showing students' (WCA) scores graded over 100 percent.

Results

The data collected from the respondents were analyzed and the results were presented below as they relate to the research questions and hypothesis.

Table 1

Level of Knowledge of Cervical Cancer (n=605)

Items on Knowledge of Cervical Cancer	*X*
Meaning of cervical cancer	33.39
Causes of cervical cancer	36.69
Mode of transmission	41.65
Signs and symptoms	44.01
Risk factors	40.36
Preventive measures	40.63
Screening	37.60
Over all (%)	**39.18**

Key: Okafor (1997) 0 -20% = very low knowledge, 21-39% = low knowledge, 40-59% = moderate knowledge, 60-79% = high knowledge, 80% and above = very high knowledge.

Table 1 shows an overall mean score of 39.18 percent. This implies that the level of knowledge of cervical cancer of WCA was low. The Table further reveals that WCA had low level of knowledge of meaning of cervical cancer ($x = 33.39\%$), causative agent of cervical cancer ($x = 36.69\%$) and screening ($x = 37.60\%$). Furthermore, the Table shows that WCA had moderate level of knowledge of mode of transmission ($x = 41.65$), signs and symptoms ($x = 44.01\%$), risk factors (x= 40.36%) and preventive measures ($x = 40.63\%$), of cervical cancer respectively.

Table2

Belief of Cervical Cancer (n = 605)

	Believed		**Don't Believed**	
Statements	f	%	f	%
Cervical cancer is a disease of old women who are 65 years and above	83	13.7	522	86.3
Cervical cancer is never curable	138	22.8	467	77.2
Cervical cancer is caused by enemies	23	3.8	582	96.2
Cervical cancer is caused by evil spirit	23	3.8	582	96.2
Cervical cancer is caused by witchcraft	26	4.1	579	95.7
Cervical cancer screening should be for married women only.	77	12.7	528	87.3
Overall Percentage		**10.2**	**89.8**	

Table 2 shows an overall mean score of 10.2% of WCA who indicated their beliefs in the items contained in the Table. The table further shows very low proportions of WCA who believed that cervical cancer is caused by witchcraft (4.1%), cervical cancer is caused by evil spirit (3.8%), cervical cancer is caused by enemies (3.8%).

Table 3

Summary of ANOVA Testing of Null Hypothesis of No Significance Difference in the Level of Knowledge of Cervical Cancer by WCA According to Age (n=605)

Item		**Sum of squares**	**df**	**Mean squares**	**F-cal**	**P-value**
Causative agent	Between Groups	423394.463	2	11697.231	5.095	.006**
	Within Groups	1381993.967	602	2295.671		
	Total 1	1405388.430	604			

*Significant

Table 3 shows the F-calculated value and P-value for causative agent of cervical cancer (F-cal = 5.095, P = 0.006 <0.05) with P value less than 0.05 at 2 602 degree of freedom. The null hypothesis of no significant difference was rejected. This implies that the knowledge of causative agent, by WCA differed according to age.

Table 4
Summary of ANOVA Testing of Null Hypothesis of No Significant Difference in the Level of Knowledge of Cervical Cancer by WCA According to level of education (n = 605).

Item		Sum of squares	df	Mean squares	F-cal	P-value
Meaning of cervical cancer	Between Groups	27711.524	3	9237.175	4.029	.007**
	Within Groups	1377842.195	601	2292.583		
	Total	1405553.719	604			

*Significant

Table 4 shows the F-calculated values and the corresponding P-values for meaning of cervical cancer (F-cal = 4.029, P = .007, <0.05), with P value less than 0.05 at 3 and 601 degree of freedom. Since the P-value is less than 0.05, the null hypothesis of no significant difference was therefore rejected. This implies that the knowledge of this component by WCA differed according to their level of education.

Discussion

Results in table 1 shows that WCA demonstrated low knowledge (39.1%) of cervical cancer. The finding is expected and not surprising because there is no awareness on the existence of the disease. The government is yet to recognize cervical cancer as an important serious public health problem and accord it a priority status given to diseases such as malaria, tuberculosis, leprosy and HIV and AIDs. This result of low knowledge of cervical cancer by WCA agrees with the finding of Anorlu (2008) who found out that only 4.3 per cent of 500 attendees of maternal and child health clinic were aware of cervical cancer. The author reported that 81.7 per cent of 139 patients with advance cervical cancer in Lagos had never heard of cervical cancer before. The result also agrees with the finding of Wright et al (2010) in which market women demonstrated low knowledge of cervical cancer. Result in Table 1 is consistent with data from Focus Group Discussions (FGDs) which revealed that only few participants had heard of cervical cancer. Majority were ignorant of the existence of the disease. They participants stated that they were aware of breast cancer only. They did not know the meaning of cervical cancer nor the causative agent. The participants mentioned untreated infection and poor personal hygiene as causes of cervical cancer. The participants had no knowledge on the mode of transmission. They responded that cervical cancer could be contacted from toilet, during delivery or abortion if not attended by skilled attendant or when aseptic technique was not observed during delivery, dirtiness around the vagina. Only very few knew that cervical cancer can be contacted through sexual intercourse. The participants knowledge on the sign and symptoms was considered poor as majority of them could not name any symptom of cervical cancer and among the women who mentioned the symptoms, many had given wrong answers such as itching, frequent urination, rashes around the vagina. Although few mentioned vaginal discharge and vaginal bleeding but they were not able to differentiate the type of vaginal discharge, whether normal or abnormal (offensive, foul smell) vaginal discharge or the type of vaginal bleeding because vaginal discharge can be normal and bleeding can result from menstruation. The participants knowledge on the prevention of cervical cancer was very low. Majority did not know any of the preventive measures. Few of them mentioned use of condoms, maintaining one sexual partner and good personal hygiene. Only two participants said that one can prevent it by going for screening test and stated that information on screening test was giving to them at Abakaliki in Ebonyi State and Ikeja in Lagos State respectively, through health care professionals. None of the participants had heard of vaccination as a preventive measure. The researcher explained to the participants the age groups (9-13) qualified to receive the

vaccine. Majority rejected it and mentioned promiscuity and adverse reaction to the vaccine as a reason for not accepting the vaccine. All of them have no knowledge on risk factors of cervical cancer.

The result in Table 2 revealed that majority (81.6%) of WCA did not believe that cervical cancer is a disease of aged women, is never curable, is caused by evil spirits, witchcrafts, enemies and screening is for married women only. The result was expected and not surprising. Many WCA are now educated and education improves knowledge and acceptability to scientific information against misconceptions of cervical cancer. The respondents had the belief that cervical cancer could affect any woman, is curable and screening is for every woman whether there is presence of symptoms or not. The result agrees with the finding of Oche et al (2013) where the respondents were of the opinion that cervical cancer screening is for all women of reproductive age. The result also agrees with the finding of Naseema and Smith (2014) in which the respondents (44.7%) believed that cervical cancer is preventable and curable. Data from FGDs shows that majority (60) of WCA had a common opinion that witchcraft, evil spirit or enemies are not the cause of cervical cancer. Few participants (9) believed that they are the cause of cervical cancer and only two believed that an enemy can victimized the opponent through any means, therefore it can be caused by an enemy.

Result revealed that there was significant difference in the level of knowledge of cervical cancer based on age. (Table 3). The result was expected, intellectual functions go with age and it determines the state of individual mental alertness. Performance at very low age is significantly from performance at a matured age. The more mature the human organism, the more the intellectual efficiency (Nachi, 2007). This result agrees with the findings of Gan and Daluhi (2013) who reported that women aged 40-49 years were found more knowledgeable as compared to those in the age group of 20-29 years. However, it should be noted that this conclusion is not universally accepted considering observation of Hong et al (2013) that knowledge was higher among younger female sex workers.

The result in Table 4 revealed that there was significant difference in the level of knowledge of cervical cancer based on level of education. This was expecting but not suprising because education improves knowledge. This finding agrees with Siddhathar, Rajkumar and Devivasgama (2014) who observed in the study that women who has tertiary education has more knowledge compared to those with lower education (primary& secondary).

These findings also agree with Antic, *et al* (2014) who reported a significant difference in knowledge of prevention of cervical cancer, that college educated women often go for preventive measures of cervical cancer in the comparison with those with only primary and secondary education (OR = 1.95% Cl 117-1.72). The result disagrees with the finding of Ekpo and Eyo (2014) which showed no significant impact on knowledge of cervical cancer.

Conclusion

Based on the result of the study, it was concluded that women of child bearing age in Abia State have low knowledge of cervical cancer. Majority of WCA believe that cervical cancer can occur in any women of childbearing age, that it has a scientific cause and screening is not only for married women.

Recommendations

1. WCA should be educated on cervical cancer to create awareness.
2. Cervical cancer should be given a priority status in terms of finding and training of healthcare workers like in HIV and AIDS, malaria and tuberculosis.

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