

**Original Article**

**Knowledge and Awareness of Cervical Cancer Screening Among Women of Reproductive Age in Ikere Ekiti Local Government Area, Ekiti State, Nigeria**

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**Abstract**

Cervical cancer is a leading cause of cancer mortality in Nigeria. A study was conducted on the knowledge and awareness of cervical cancer screening among women of reproductive age in Ikere Local Government Area of Ekiti State. The study determined the sources of information on cervical cancer screening and how often they engaged in cervical cancer screening. The researchers generated three research questions and formulated three hypotheses to guide the study. The sample for the study was 220 respondents drawn from all the health facilities, churches, mosque and market places in Ikere Local Government area of Ekiti State. The instrument for the study was self structured questionnaire to elicit information on knowledge and awareness of the respondents on cervical cancer and cervical screening. The instrument was validated by experts and reliability coefficient using Pearson Product Moment Correlation coefficient was high enough and considered reliable for the study at 0.05 level of significance. The respondents had low knowledge about cervical cancer screening and all the health facilities in the areas do not carry out cervical screening. The risk factors for cervical cancer include age, religious factors, age factors, family type, parity among others.

**Key words:** knowledge, awareness, family type, parity, cervical cancer, Cervical cancer screening.

**Introduction**

A Women's Reproductive health needs are very important to the health of the family as women have important roles to play in their families. They need to be healthy in order to function optimally. Thus, women's health must be seen as a holistic concept that includes all biopsychosocial aspects of

the women's being (Pinn, 2008). A woman is healthy when she is free from organic disorders, diseases and deficiencies that interfere with sexual and reproductive functions (Baileff, 2000). Cervical cancer 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. Family type may be monogamy, polygamy or polyandry. In each case, the researchers wish to identify the possible risk factors that can emanate from a woman whose husband has unprotected multiple sexual partners or a woman with many husbands as in polyandry family type. This seems to be capable of causing recurrent sexually transmitted diseases and other genital warts which may predispose an individual to cervical cancer.

Parity means a number of pregnancies and deliveries or even abortion experienced by a woman in her life time, which are capable of weakening her immune system and increasing the chances of Human Papilloma Virus (HPV) which are the primary underlying cause of cervical cancer (Adewole, 2008). These and other risk factors are common in low rural resource setting of a developing countries like Nigeria.

According to Carr and Sellors (2004) the risk factors for cervical cancer include smoking, infection with HIV, lack of previous screening and multiple partners. Issues relating to women's health were the focus of the International Conference on Population and Development (ICPD) in 1994 which gave rise to the need for strategies to improve reproductive health globally (Mutuyaba, Faxelid, Mirembe, & Weiderpass, 2007).

In Nigeria, cervical cancer is a leading cause of cancer mortality, and it is the second most frequent cancer (Adewole, 2008). Each year approximately, 10,000 women develop cervical cancer, and about 8,000 women die from cervical cancer in Nigeria. Ayinde, Omigbadun & Ilesanmi (2004) affirm that cervical cancer is one of the commonest cancer affecting women in Nigeria while Ogundipe, and Obinna, (2008) document the incidence rate of cervical cancer as 25/1100,000. Evidence of decline in the incidence has been observed from countries like the United States where there are established screening protocols (Adewole, 2008). The problem of late reporting, ignorance and cultural issues relating to cervical cancer screening are major factors influencing the disease control in Nigeria (Adewole, 2008). The present study was carried out in low resource rural setting of Ekiti State, Nigeria. The prevalent rates are very high in the low resource rural setting of the country based

on the available statistics in the country (Curado et al, 2007).

Cervical cancer contributes to mortality among women especially those in developing countries (Adewole, 2008, Mutuyaba, Faxelid, Mirembe, & Weiderpass, 2007, WHO, 2004, Ayinde & Omigbadun, 2003). It is a preventable disease. At the present time cervical screening is acknowledged to be the most effective approach to controlling this type of cancer. According to Carr and Sellors (2004) "Cervical cancer is one of the leading causes of death for middle-aged women in the developing world", yet it is almost completely preventable, if precancerous lesions are identified and treated early (Baileff, 2000). There are various measures for reducing the risk of developing cervical cancer, which include lifestyle changes, Human Papilloma Virus (HPV) vaccination and screening for precancerous changes. Lifestyle changes like reducing number of partners, avoiding early initiation of sexual intercourse will help to reduce contact with the Human Papilloma Virus (HPV) which is the known causative agent for cervical cancer (Ogundipe & Obinna, 2008).

Also, this prevents HIV which increases the risk for malignant changes if there is contact with the HPV. The new drive of vaccinating girls with Human Papilloma Virus vaccine is the latest measure for the prevention of cervical cancer in adults. Presently the vaccination is yet to take off fully and even if it takes off fully many female adults have missed the opportunity, thus screening for early changes still remains an important preventive measure. Literate respondents in this study are those who had completed and exposed to formal learning and teaching practices in school environment while Illiterate are those who were not exposed to any formal education.

Screening that is being carried out in Nigeria is not a planned programme. It is done using opportunist method for those who visit certain clinics thus, counseling is not carried out appropriately. A screening programme should be an integrated system for all women utilizing reproductive health facility with sufficient coverage and satisfactory access to services. Where the services are available, many women seem not to be aware of the services since they are mainly available in some secondary and tertiary health facilities and

cost is also attached to the services, thus they are not accessible and affordable to many women.

### **Purpose of the Study**

To assess how often the woman of reproductive age carried out cervical cancer screening in Ikere Local Government area of Ekiti State, Nigeria. The study investigated the influence of demographic variables such as age, sex, religion, family type, location, parity and socioeconomic status on knowledge and awareness of cervical cancer among women of child bearing age.

### **Statement of Problem**

The researchers observed that despite a good number of health campaigns, warning labels, doctor's advice and pleadings, some women still seem to dismiss the empirical evidence of dangers of cervical cancer.

The location of women seems to be affecting their knowledge of cervical cancer screening for early detection. It seems that they still ignore the occurrence and the likelihood of cervical cancer prevalence among women. The women living in the rural area seem not to have enough understanding about cervical cancer screening centers and what they entail. Significant number of women, though aware of health risks in cervical cancer, still appears to ignore the preventive actions of cervical cancer screening (Mutya et al, 2007).

Failure of the early detection seems to have caused death in many instances which is more than deaths from other diseases. From all indications, the burden of cervical cancer is rising but with the early detection through screening, the disease needs not claim so many lives again (Ogundipe & Obinna, 2008). Religion of women seems not to allow them undergo the cervical cancer screening because of their beliefs. Some Nigerian women seem to present cases of cervical cancer at an advanced stage of the disease at which little or no therapy can be adopted.

The twenty countries globally affected by cervical cancer are majorly Africa countries led by Nigeria, then Ethiopia, Democratic Republic of Congo, South Africa, Tanzania Mozambique and Kenya. India, China, Indonesia and Brazil make up the top 5 with Nigeria as 5<sup>th</sup> globally (Africa

Health, WHO/ICO, 2010). Women in developing countries seem to utilize reproductive health services more during pregnancy.

They also use reproductive health services for post natal check up and family planning or when faced with various gynaecological problems. More so, a significant proportion of women with invasive cervical cancer are in the reproductive age group, pregnancy becomes a suitable time for screening, especially for women who do not undergo gynaecologic examination regularly. It is important to ensure high coverage of cervical cancer screening within the target group as several studies support the observation that the decrease in incidence rate is more evident in countries with organized screening programmes (Nygard, et al., 2006). The researchers had seen many cases of women of child bearing age that were diagnosed as having cervical cancer and majority have died from the condition in this study area. Current estimates indicate that every year 9922 women are diagnosed with cervical cancer and 8030 die from the disease, about 24.8% of women in the rural population are estimated to harbour cervical Human papilloma virus infection at a given time in a population (Adewole, 2008)

While it may be possible that some studies might have addressed some related problems of cervical cancer and survival in various parts of the world, no researcher had carried out any study on cervical cancer in Ikere Local Government Area of Ekiti State. Based on the above background there is need for this study in Ikere Local Government area of Ekiti State.

### **Research Questions.**

The following Research Questions were generated to guide the study

1. What are the sources of getting information about cervical cancer screening among women of Ikere Ekiti Local Government Area, Ekiti State?
2. What are the factors influencing women in subjecting themselves to cervical cancer screening?.
3. How often do the women conduct self and routine examination and cervical cancer screening examination?.

## Research Hypotheses

The following research hypotheses were formulated to guide the study and were tested at 0.05 level of significance.

1: There is no significant difference in family type of the respondents and their knowledge of cervical cancer screening

2: There is no significant difference in the influence of knowledge of cervical cancer screening on parity

3: Educational status will not significantly influence the knowledge of cervical screening among the respondents

## Significance of the Study

The findings from the study could be used in providing structured modules that will be used in various hospitals for improving awareness of cervical cancer among women. The availability of the modules will make cervical cancer information easier.

The literate women can read and acquire the information on their own while the illiterate ones can be assisted by their husbands or children in acquiring the information. Also written information can reach more people. The module could enable the health workers to give appropriate information to the women who come to receive care from them.

The findings from the study could create awareness to women about the need to get vaccinated themselves and their female children early enough. This study could determine various factors that influence cervical cancer screening.

Awareness of the factors will help in removing barriers to screening services. It will also provide information on the areas of difficulties encountered by women. It will help to enhance ways of providing antenatal information to women.

## Delimitation of the Study

The study was restricted to women using maternal health services in selected health facilities in Ikere Ekiti Local Government, Ekiti State. The population for the study was rural resource setting of Ekiti State.

## Research Method

### Research Design

A descriptive research of the survey type was used for this study. Survey design was considered appropriate and adopted because it will describe psychosocial factors and knowledge of cervical screening among women in Ikere Ekiti Local Government, Ekiti State, Nigeria. It was considered appropriate to discover the source of information, the level of cervical cancer knowledge and the trend of cervical cancer screening among women.

### Population

The target population for this study consisted of all women in Ikere Ekiti Local Government, Ekiti State. Women attending State General Hospital, Comprehensive Health Centre and Basic Health Centre, women in markets, churches and mosque. The age group of women under study will be 18 -50 years.

### Sample and Sampling Techniques

The sample for this study consisted of 220 women between 18 -50 years of age in Ikere Ekiti Local Government, Ekiti State selected using simple random sampling technique by balloting system.

### Research Instrument

A self designed questionnaire titled “Knowledge of Cervical Cancer Screening Questionnaire (KCCSQ)” was used to elicit information from respondents. The questionnaire consists of three sections, identified as A, B and C. Section A contains information on demographic characteristics of the respondents such as age - group, marital status, educational qualification, religion and economic status. The items in Section B were used to elicit information on the knowledge about cervical cancer screening. It also brought about information about women’s susceptibility to cervical cancer. The continuum to be used is an adapted four point Likert type scale (4 –frequently, 3 – occasionally, 2 –rarely, 1 –I don’t do it). Section C contains information about screening methods practiced by the respondents. It also enabled non –user of any type of screening method to tick from the Yes or No options. The instrument was self structured questionnaire designed in English Language and interpreted by

the researchers in a local dialect for illiterate respondents for better understanding and this increased their interest in the study which led to success recorded in the research work.

### **Validity of the Instrument**

The instrument was subjected to Face, Content and Construct validities. The Face validity was ensured by giving the instrument to experts in Obstetric and Gynaecology Department of Ondo State Specialist Hospital, experts in the Department of Human Kinetics and Health Education in Ekiti State University, Ado Ekiti and a specialist in Test and Measurement and two midwives who determined the face value of the instrument in measuring what it is meant to measure. The experts agreed that the instrument was capable of eliciting responses from the respondents on knowledge of cervical cancer screening and prevention among women

### **Reliability of the Instrument**

The reliability of the instrument was established using test-retest method. A trial testing was carried out on 20 women that are not part of the sample as subjects drawn from the Health Centre outside the study area. The instrument was administered on the subjects twice at two weeks interval. The scores from the two administrations were correlated using Pearson Product Moment Correlation analysis. The reliability coefficient was 0.81 and thereby considered high enough for establishing the reliability of the instrument.

### **Administration of the Instrument**

The instrument was administered to 220 respondents by the researchers. The researchers established rapport with the respondents before the administration of the instruments. They were also assured that the research is for academic purposes and has nothing to do with their personality and thereby assured them of confidentiality. The questionnaire was collected after completion and collated.

### **Data Analysis**

The data generated were analyzed using descriptive and inferential statistics. The descriptive statistics included frequency counts, percentages, mean and standard deviation which was used to answer the research questions and inferential

statistics was used to test the null hypotheses at 0.05 level of significance

### **Ethical Consideration**

All the respondents for this study were allowed to sign a consent form having explained the content of the study to them. They were assured of confidentiality, anonymity and they were informed that the study is for educational research purpose only.

### **Results and Discussion**

#### **Research Question 1**

What are the sources of getting information about cervical cancer screening among women of Ikere Ekiti Local Government, Ekiti State?

Table 1 shows that the major sources of information about cervical cancer screening is from health workers with 48.2%, followed by electronic media of 25.5%, social network of 11.4%, market places with 8.2%, place of worship 4.5% and the least area of source of information about cervical screening was from family members with 2.3%. In a similar study conducted by Poonam et al (2012) in Andhra Pradesh revealed that 47.5% had their source of information from teachers and 20% from newspaper. In this case, the teachers can be likened to the health workers because they teach at the health facilities.

#### **Research Question 2**

What are the factors influencing women in subjecting themselves to cervical cancer screening?

Table 2 revealed that educational status accounted for 25% factors influencing women to subject themselves to cervical cancer screening followed by parity which accounted for 18.18%, economic status 16.36%, age factor 13.64%, family history 10.9%, while family type and family history accounted for 11.36% and 10.9% respectively. This study was in agreement with the studies conducted by Poonam et al (2012) in Andhra Pradesh and Abiodun et al (2014) among rural Nigerian women. The following risk factors were identified age, marital status, level of education, economic status and knowledge of cervical cancer screening. Therefore, there is conformity in the present study with those previous studies but the

present study is able to identify other risk factors like family history, family type and parity as additional risk factors for cervical cancer.

### **Research Question 3**

How often do the women conduct self and routine examination and cervical cancer screening examination?

The table 3 above revealed how often the respondents subjected themselves to cervical cancer examination and screening for early detection .It was observed that 10 % of the respondents frequently do cervical self examination, 8.18% occasionally, 2.73% rarely do cervical self examination and 10.45% don't do it at all. In the same vein,18.18 % don't do routine cervical cancer examination, 5 % rarely do routine cervical examination ,3.64 % and 4.55% do routine cervical examination frequently and occasionally respectively. The table revealed further that 27.27 % don't do pap smear screening, 3.64% rarely,5.45% frequently and 0.91 % do it occasionally.

### **Hypotheses Testing**

There is no significant difference in family type of the respondents and their knowledge of cervical cancer screening.

The result from the table 4 above shows that family types has significant influence on the knowledge of women on cervical cancer screening as the t-calculated of 0.700 is greater than the t-table value of 485. Thus, there is an evidence strong enough to reject the null hypothesis. By implication, there is significant difference between the mean score in family type on knowledge of cervical cancer screening. This present study is in agreement with the study conducted by Adewole et al (2011) on cervical cancer screening among Nurses in Lagos State.

There is no significant difference in the influence of knowledge of cervical cancer screening on parity.

Table 5 above shows that the t-table of 0.828, probability level of 0.938 at alpha less than 0.05 and t-calculated of 0.828 less than critical value revealed that there is enough evidence to refuse to reject the null hypothesis. This implies that there is no significant difference in the influence of

knowledge of cervical cancer screening among the respondents on parity. This present study is in concordance with the study conducted in Kolkata, India among female students reflected low level of awareness and knowledge of cervical cancer and its risk factors and only 11% and 15% were aware of pap smear and HPV respectively (Saha et al, 2010).

Education will not significantly influence the knowledge of cervical screening among the respondents

The table 6 above shows that the t –cal of 2.880 is greater than t- table value of 0.097, therefore, the null hypothesis is hereby rejected. Thus, by implication there is significant influence of education on cervical screening knowledge among the respondents. Leung and Leung (2011), Awodele et al. (2011) found that the patient's level of education to be related to cervical cancer screening which is in conformity with this present study .In contrary this study disagrees with the study conducted by Abiodun et al (2014) where there is no significant influence on level of education of the respondents and their knowledge of cervical cancer screening.

### **Conclusion**

In conclusion, this study has shown that women of reproductive age in Ikere Local Government Area of Ekiti State has low knowledge of cervical cancer screening and prevention. The study shown that there is no significant difference in the influence of knowledge of cervical cancer screening among the respondents on parity. There is significant difference between the mean score of family type on knowledge of cervical cancer screening; parity, economic status and family type were implicated in the factors responsible for the causes of cervical cancer. Educational status has significant influence on knowledge of cervical cancer screening and control.

### **Recommendations**

Based on the findings, the following recommendations are made:

1. Education of the entire population to ensure participation in the screening programme through massive awareness campaign on mass media, electronic media and all platforms of

- media to sensitize the entire population of Ikere Local Government on Cervical Cancer Screening and prevention
2. There should be a referral pathway for treatment of patients and health care workers should be involved in training of people at local level.
  3. Seminar and workshop should be organized for all women of child bearing age in the whole Local Government area.
  4. Health workers should inculcate the habit of thorough health screening and good counseling techniques for all women of reproductive age utilizing health facilities in Ikere Local Government Area of Ekiti State.
  5. Government should establish high quality Laboratory services and cervical screening centers at Ikere Local Government, Ekiti State.
  6. There should be organized screening programme through an explicit policy from Federal Government of Nigeria with specified age categories and defined target population method and interval for screening of women of child bearing age.
  7. Religious leaders should ensure that they sensitize their members to engage in regular cervical cancer screening for early detection and to promote good prognosis.

**Table 1: Showing sources of getting information about Cervical Cancer Screening among Respondents**

<i>Sources of Information</i>	<i>Frequency</i>	<i>Percentage</i>
Family member	5	2.3
Health workers	106	48.2
Social Network	25	11.4
Electronic media	56	25.5
Place of worship	10	4.5
Market places	18	8.2

**Table 2: Showing factors influencing women in subjecting themselves to cervical cancer screening**

FACTORS	Frequency	percentage %
Family history	24	(10.9%)
Religious factor	10	(4.55%)
Economic status	36	(16.36%)
Age factor	30	(13.64%)
Educational status	55	(25%)
Family type	25	(11.36)
Parity	40	(18.18%)

**Table 3 Showing how often women conduct self and routine cervical cancer screening**

Type of examination	I don't do it	Rarely	Frequently	Occasionally
Self examination	23 (10.45%)	06 (2.73%)	22 (10%)	18 (8.18%)
Routine cervical examination	40 (18.18%)	11 (5%)	08 (3.64%)	10(4.55%)
Pap smear examination/screening	60 (27.27%)	08 (3.64%)	12 (5.45%)	02(0.91%)

**Table 4: Showing the influence of family type on knowledge of cervical cancer screening among the Respondents**

Items	X	S.D	N	Df	t.cal	Sig	Decision
Family type	2.7318	1.0538	220	219	0.700	.485	.Rej
Knowledge of cervical cancer screening	2.6545	1.0197	220	219	0.700	.485	Rej

P &lt; 0.05

**Table 5: Showing the influence of knowledge of cervical cancer screening among the Respondents on parity .**

Items	X	S.D	N	Df	t.cal	Sig	Decision
Parity	2.9091	0.9574	220	218	0.828	0.939	N.S
Knowledge of cervical cancer screening	3.0413	0.8103	220	218	0.828	0.939	N.S

P &lt; 0.05

**Table 6: Showing the influence of education on knowledge of cervical cancer screening among the Respondents**

Items	X	S.D	N	Df	t.cal	Sig	Decision
Literate	3.3837	0.6356	220	218	2.880	0.097	.Rej
Illiterate	2.6978	1.0524	220	218	2.880	0.097	Rej

P &lt; 0.05

## References

- Abiodun O.A, Fatungase O.K and Olu-Abiodun O.O.(2014).Knowledge, Perception and predictors of Uptakeof cervical screening among rural Nigerian women.Journal of Public Health and Epidemiology.6(3).119-124
- Adewole, I. F. (2008) Infection and Cancer: The Triumph of Science over Death 2<sup>nd</sup>DrChinyere Aneziokoro Memorial Lecture University of Ibadan
- Awodele O, Adeyomoye A.A.A, Awodele D.F, Kwashi V, Awodele I.O, Dolapo D.C (2011).A Study on Cervical cancer Screening Amongst Nurses in Lagos, Nigeria.Journal of Cancer Education;26:497-504
- Ayinde, O. A and Omigbodun A. O. (2003).Knowledge, Attitude and Practices Related to Prevention of Cancer of the Cervix among Female Health Workers in Ibadan .Journal of Obstetrics and Gynaecology .23 (1) 59- 62
- Ayinde, O. A. ,Omigbodun A. O. and Ilesanmi, A.O . (2004). Awareness of Cervical Cancer, papanicolaou’s Smear and Its Utilization Among Undergraduates in Ibadan. African Journal of Reproductive Health. 8 (3) 68- 80
- Baileff, A. (2000). Cervical Screening: Patients’ Negative Attitudes and Experiences. Nursing Standard 14 (44) 15 -20
- CuradoM.P,EdwardsB,Shin H.R, Storm H, Ferlay J, Heanue M, Boyle P eds(2007).Cancer Incidence in Five continents, vol ix. (IARC) International Agency for Research on Cancer press. Scientific Publications No 160 Lyon, France.
- Carr, K.C., and Sellors, J.W.(2004) .Cervical Cancer Screening in low Resource Setting Using visual Inspection with acetic acid. Journal of Midwifery Women’s Health; 49 (4) :329-337
- Leung .S.S.S and Leung .I.(2010).Cervical Cancer Screening:Knowledge, Health Perception and Attendance rate among Hong Kong Chinese women.International Journal of Women’s Health 2:221 -228
- Mutyaba, T, Faxelid, E. ,Mirembe, F., and Weiderpass, E (2007).Influences on Uptake of Reproductive Health Services on Nsangi Community of Uganda and Their Implications for Cervical Cancer Screening.Reproductive Health Journal, 4: 4
- Nygard J.F, Nygard M, Skare G.B. and Thoresam S.O.(2006).Pap Smear Screening in Women under in theNorwegian coordinated Cervical Cancer Screening Program, with a Comparism of immediate biopsy versus Pap Smear Triage of Moderate Dysplasia. Acta Cytology 50 (3): 295 -302
- Nygard, M, Daltveit A , Thoresen .S.O. and Nygard J.F. (2007).Effect of an Antepartum Pap Smear on the coverage of a Cervical Cancer Screening Programme: a population- based prospective study. GMC Health Services Research: 7 (10) Retrieved in July, 2016 from <http://www.biomedcentral.com>.
- Ogundipe, S. and Obinna , C (2008). Why Cancer is on the rise in Nigeria. Vanguard Media Limited
- Pinn, V.W. (2008). Women’s Health. The News. AMSA Focus Newsletter
- Poonam R.N, Nagaraj K, Abhay S.N (2012).Awareness of Cervical Cancer and Effectiveness of Educational Intervention Programme Among Nursing Students in a Rural Area of Andhra Pradesh. Journal of Health line 3(2);41 – 45 ISSN 2229- 337X
- Saha. A., Chaudhury. A. N.,Bhowmik, P, Chatterjee.R.(2010). Awareness of Cervical Cancer Among Female Students of Premier College in Kolkata, India .Asian Pacific. Journal of Cancer Prevention. 11:1085 -1090
- WHO (2004).Cervical Cancer Screening in Developing Countries. Report of a WHO Consultation, Geneva.World Health Organization.
- WHO/ ICO (2010).Information Centre on HPV and Cervical Cancer.Human Papilloma Virus and Related Cancer in Nigeria.Summary Report. World Health Organization, Geneva.