

Factors Contributing to Low Uptake of Cervical Screening in a Population at Risk

Kikelomo Adesina¹, Rakiya Saidu¹, Abiodun Aboyeji¹, Adegboyega Fawole¹, Adebunmi Olarinoye¹, Kazeem Ibrahim²

Departments of ¹Obstetrics and Gynaecology and ²Histopathology and Morbid Anatomy, University of Ilorin Teaching Hospital, Ilorin, Kwara State, Nigeria

Abstract

Introduction: Many factors have been attributed to the unacceptably high incidences of cervical cancer and deaths from cervical cancer in developing countries and include lack of organized cervical cancer screening services and especially lack of information on cervical cancer by women.

Aims and Objectives: This study aims to find the contributing factors to knowledge, attitude and practice of cervical screening in women.

Materials and Methods: This study was carried out using a self administered questionnaire filled by 271 women who attended gynaecological and family planning clinics.

Results: About 212 (78.2%) of the respondents have heard about cancer before, 144 (53.1%) of respondents were aware that cervical cancer can be prevented by screening. 187 (66.8%) have no idea about the cause of cervical cancer, 64.6% said they wish to be screened, but 242 (89.3%) have never been screened for cervical cancer.

Discussion: The respondents in this study have demonstrated a high level of awareness of cervical cancer but low uptake of cervical cancer screening services. There is therefore the need to improve on the knowledge of the disease and also to pass on correct messages concerning cervical cancer to the community using multiple channels of communication.

Key Words: Cervical Cancer, Screening, Prevention

Introduction

The burden of carcinoma of the uterine cervix is a global issue, especially in developing countries. It is the second most common cancer of women worldwide¹. Annually 500,000 cases are diagnosed worldwide with ranging incidences of 10 per 100,000 women in industrialized to 60 per 100,000 in the developing world^{2,3}. The incidence and mortalities in the developing countries remain unacceptably high when compared with the developed world. It is the leading cause of deaths due to cancer among women in Africa⁴.

In the developed world, the lower incidence of cervical cancer is due to well organized screening programmes which are lacking in most developing countries⁵. The natural progression of the disease is understood and the screening for its premalignant stage with screening methods (such as Papanicoulau's smear) and treatment prevents significantly progression into a carcinoma⁵.

Apart from the availability of organized

screening programmes, many other factors also contribute to uptake of screening programmes. Investigators have shown that education must precede it, if it is to succeed⁶. In another population (a cohort of health workers) where the knowledge of cervical screening is high, utilization was shown to be poor⁷. Others have identified factors such as cost, cultural beliefs, fear and lack of access to screening facilities to be responsible for poor uptake of screening services^{6,8}. There is need to address these issues as availability of cervical cancer screening alone does not equate utilization as demonstrated by Deschamps and other workers in the British Columbia⁹.

Generally, the awareness of cervical cancer is

Correspondence: Dr. Kike Adesina, Department of Obstetrics & Gynaecology, Faculty of Clinical Sciences, College of Health Sciences, University of Ilorin, Ilorin, Nigeria.
E-mail: teminikike@yahoo.com

Table 1 Socio- demographic status of respondents

VARIABLE	FREQUENCY (n = 271)	%
Age range		
15-24	16	5.9
25-34	135	49.8
35-44	85	31.4
45-54	26	9.6
55-64	8	3.0
..	1	0.4
Marital Status		
Married	237	87.5
Un-married	34	12.5
Educational Status		
ed Primary school	53	19.6
ed Secondary school	218	80.4
Ethnic Group		
Yoruba	214	79.0
Hausa	16	5.9
Igbo	25	9.2
Others	16	5.9
Religion		
Christianity	151	55.7
Islam	117	43.2
Others	3	1.1

increasing in Nigeria with regional variations and more screening programmes in the country are front lined by non- governmental organizations (NGOs), associations and religious bodies. The prevalence of the cancer in this region generates global interest; for instance carcinoma of the cervix accounts for 63.1% of histologically confirmed gynaecological cancers in the University of Ilorin Teaching Hospital, Ilorin, Nigeria ¹⁰. In view of this, many non-governmental organizations are making efforts at reducing mortality due to the cancer in Nigeria by organizing seminars and enlightenment campaigns since appropriate interventions will require understanding the disease. There is need to plan and organize strategies that will ensure effectiveness of programmes engendered towards preventions and early treatment. The baseline of planning is to determine the level of awareness among the population, deductions can then be made and interventions strategized.

Hence, this study aims at determining how knowledgeable of the disease women are and the contributing factors to knowledge, attitude and practice of cervical screening in women attending gynaecological and family planning clinics, in the University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Materials and Methods

The study was conducted at the gynaecology and family planning clinics of the department of Obstetrics and Gynaecology, University of Ilorin Teaching Hospital, Ilorin, Nigeria. The hospital serves as a referral centre for health facilities in the city and the surrounding towns. It is located in the North-central geopolitical zone of Nigeria; patients are also referred from some parts of south-west geopolitical zone of the country.

The subjects were patients/clients that presented on account of gynaecological complaints and for family planning services respectively; between September and October

Table 2: Knowledge of Cervical Cancer and Screening Among Respondents

VARIABLE	FREQUENCY (n=271)	%
Have you heard of cervical cancer?		
Yes	212	78.2
No	59	21.8
Do you know that cervical cancer can be prevented by screening?		
Yes	144	53.1
No	127	46.9
Methods of screening for cervical cancer		
I don't know	78	28.8
Physical examination	56	20.7
Specimen examination	70	25.8
Visual examination	29	10.7
Ultrasound scan	37	13.7
..	1	0.4
What causes cervical cancer		
I dont know	181	66.4
Infection	59	21.8
Child bearing	5	1.8
inherited	26	9.6
Do you know about a vaccine that prevents cervical cancer?		
Yes	24	8.9
No	247	91.9

2008. A survey of 271 women in the two clinics was done. A structured self-administered questionnaire was used. The questionnaire was administered to consenting consecutive patients that presented in these clinics. There was brief general information to patients before consent was sought. Literate patients filled the questionnaire themselves but were allowed to ask questions from researchers and most senior nursing staff in the clinics. The illiterate patients were led by the most senior nurses in the clinic. Contact was made with 300 clients patients while only 271 women filled the questionnaire. The information sought included the socio-demographic characteristics of the respondents, knowledge of carcinoma of the cervix and its prevention; knowledge, attitude and utilization

of Papanicoulau smear.

Statistical analyses were carried out with Epi-info version 6 and descriptive statistics such as means, frequency distribution, confidence interval and standard deviation were used to describe the findings. The test of association between responses to the variables was performed using Chi-squared tests where applicable (P<0.005).

Results

The questionnaire was completed by 271 women who attended the gynaecological and family planning clinics for various reasons. Table 1 describes the demographic status of the respondents. Their mean parity was 2.34 (range

TABLE 3: Attitude of respondents to cervical cancer screening.

VARIABLE	FREQUENCY (n=271)	%
Do you wish to be screened?		
Yes	175	64.5
No, I cant never have cancer	57	21.0
No, too costly	25	9.2
No, fear of detecting cancer	13	4.8
No, against my religion	1	0.4
If screening is free, would you screen?		
Yes	194	71.6
No	77	28.4
Have you advised anybody to screen in the last one year?		
Yes	58	21.4
No	213	78.6

0-7, SD=1.844). The mean age was 34.66 years (range 17-78 years, SD=8.499). The age group of 25-34 years was the largest age group with 135 (49.8%); while there was only one woman (0.4%) who was more than 65 years old. Of the 271 respondents, 237 women (86.7%) were married and 218 (80.4%) had secondary education and above. Yoruba is the most common (214, 79%) ethnic group among the respondents. One hundred and fifty one (55.7%) respondents were Christians while 117 (43.2%) were Muslims.

About 78 % (212) of the respondents have heard about cervical cancer before, from multiple sources of information including print and electronic media, seminars, workshops and friends. Previous knowledge of cervical cancer screening was volunteered by 144 (53.1%) of respondents were aware that cervical cancer can be prevented by screening. There is no significant difference between the age groups on their knowledge that cervical cancer can be prevented by screening ($p=0.37$) and also between the married and the unmarried women ($p=0.85$). However, those women who have secondary school education and above have a statistically significant higher awareness than those with lower level of education ($p=0.000$). Concerning the method of screening, 78 women (28.8%) had no idea how the screening is done, only 56 (20.8%) know that Pap smear is a method of screening, 70 (25.8%) mentioned speculum

examination, ultrasound scan by 37 (13.7%), vaginal examination by 29 (10.7%) and VIA by 1(0.4%). Various ages were given as the suggested appropriate time to start screening where 61 (22.5%) say they have no idea and another 61 (22.5%) said between the ages of 20-24. Yearly screening was proposed by 113 (41.7%) of the respondents. Only 24 (8.9%) have heard of a vaccine for prevention of cervical cancer. These are presented on Table 2.

When asked about the cause of cervical cancer, 187 (66.8%) had no idea about the cause, 59 (21.8%) thought it is caused by infection, 26 women (9.6%) thought it is inherited and 5 respondents (1.8%) thought childbearing is the cause.

On their attitude towards cervical cancer screening, 175 (64.6%) said they wish to be screened, 57 (21%) did not wish to be screened because they believed that they can never have cancer, 25 (9.2%) think that cervical screening is too expensive, 13 (4.8%) were afraid of detecting cancer and 1 (0.4%) because of religious belief. When asked if they wish to be screened if offered free screening, 77 (28.4%) would still not access screening, showing that for some of them that cited cost as a barrier to screening, other factors may be involved. Marital status did not influence these views on their attitude towards cervical cancer screening ($p=0.6$). Two hundred and thirteen (78.6%) women have not advised

Table 4: The practice of screening among the respondents

VARIABLE	FREQUENCY (n=271)	%
Have you been screened before?		
Never	242	89.7
Once	19	7.0
Twice	9	3.3
4 times	1	0.4

anyone to have cervical cancer screening in the last one year. Table 3 shows this clearly.

Table 4 shows that most of the respondents, 242 (89.3%) have never been screened for cervical cancer, while 29 (10.7%) had been screened before, where 7.0% were screened once, 3.3% were screened twice and 0.4% was screened 4 times. There was no statistically significant difference between those who were screened and those were not in terms of age range ($p=0.7$), marital status ($p=0.4$) and educational status ($p=0.3$).

Discussion

This study on cervical cancer knowledge, attitude and practice of screening methods, was carried out in north-central region of Nigeria. The mean age of respondents was 34.66 years (range 17-78 years, SD=8.499) and mean parity was 2.34 (0-7 years, SD=1.844). This agrees with the general representation of population at risk of the premalignant stage of the disease¹¹ and future risk of the malignancy. This is because cervical cancer is a slowly evolving disease that begins as a mild dysplasia and progresses over as long as 10 or more years to invasive carcinoma¹². Also, cervical cancer is most common in women above 40 years with highest mortalities among women in their 50s and 60s^{10,12}. Thus, the assessment of the knowledge, attitude and practice of cervical screening in this age group becomes relevant.

There was a high level of awareness of cervical cancer among the respondents. This is much higher when compared with findings of workers in Maiduguri, Nigeria⁶ (78.2% vs 9.8%) which may be explained by the fact that most of the respondents (80.4%) had at least secondary school education. Despite the fact that 78.2% of the respondents heard of cervical cancer before,

about 53.1% were aware that cervical cancer could be prevented and among all other demographic factors studied, this awareness is statistically higher in those women who had at least secondary school than those with lower level of education or no education at all ($p=0.000$). An even smaller proportion of the respondents, 26.2% knew that pap smear was a method of screening for cervical cancer. In fact, 28.8% did not know how cervical cancer screening is done despite the volunteered awareness of cervical cancer. High level of ignorance about screening for cervical cancer screening invariably signifies the absence of routine screening programmes⁶. The provision of services would go alongside with appropriate education of the population^{6,7,13}. Sources of information should include print and electronic media, seminars and workshops as indicated by the study; health talk topics should include carcinoma of cervix in various clinics involving sexually active women.

Cervical cancer is known to be an outcome of Human Papilloma Virus (HPV) infection which is mainly sexually transmitted, the invasive disease develops from the persistence of HPV DNA⁵. This has recently led to including as components of cervical cancer control, screening for the virus and HPV vaccination as components of cervical cancer control. This vast knowledge among the scientific community has not been transferred to the community as 66.8% of the women did not know the cause of the malignancy, and only 21.8% thought it is caused by infection.

Only 8.9% of the women have heard of a vaccine for the prevention of cervical cancer. Hence, provision, acceptability and proper use of HPV vaccine in this environment might be hindered by the level of ignorance about its role in younger women/girls that are not sexually active. For the

vast majority of women who have already been infected, however, continued screening and resection need to be emphasized¹⁴.

The attitude of the respondents towards cervical cancer screening was also determined and it was found that 64.6% wished to be screened for cancer while 35.4% did not. About 21% of the respondents believed that they can never have cancer. This was also documented in a similar study conducted among female health workers^{7,15}, a population with a presumed high level of awareness and assumed to be 'role models' in health matters. Fear of detection of cancer and the high cost of screening have also been identified as barriers to screening in this study as had been demonstrated in similar studies in this environment^{6,7,13}. In as much as cost may determine the utilization of cervical screening services¹³, when asked if they will utilize the service if made free, 28.4% would still not be screened. This shows that, it is important to address other factors as making this service free and available may not translate to utilization. Health education, improvements in sensitivity of staff and atmosphere at screening sites could help increase cervical cancer screening rates^{16,17,18}.

Despite this high level of awareness of cervical cancer among the respondents, (78.2%), only 10.7% had been screened before. Educational

status, marital status and age did not significantly affect whether the respondents were screened or not. The disparity between the level of awareness of cervical cancer and the practice of cancer screening among the women was wide (78.2% and 10.3% respectively). This is not unexpected in this study as 53.1% of the women were aware of cervical cancer screening, and only about 26% knew the correct screening methods showing either inadequate information or passing around of wrong information in the community.

The practice and utilization of cervical cancer screening is poor when compared with the level of awareness of cervical cancer demonstrated by this study population.

The respondents have demonstrated a high level of awareness of cervical cancer but low uptake of cervical cancer screening services due to poor knowledge of the disease and its prevention, fear of cancer and cost of screening services; those in the majority have shown that mass education is desired in the community. Efforts should be made to increase the awareness and uptake through health education, provision of screening and treatment facilities for screen positive women. The contending issues around making screening programmes successful need to be addressed individually and strategies mounted collectively.

References

1. Parkin DM, Pisani P, Ferlay J: Estimates of the worldwide incidence of eighteen major cancers in 1985. *International Journal of Cancer*, 1993, 53: 594-606.
2. Parkin DM, Bray F: The burden of HPV-related cancers. *Vaccine* 2006; 24: 11-25.
3. Waggoner SE. Cervical cancer. *Lancet*. 2003; 361: 2217-2225.
4. Parkin DM, Sitas F, Chirenje M, Sterin L, Abratt R, Wabinga H, Part I: *Cancer In*.
5. Shafi MI: Premalignant and Malignant disease of the cervix. In: Dewhurst textbook of Obstetrics and Gynaecology. Edmonds DK (Ed). 7th ed 2007: 614-624.
6. Audu BM, El-Nafaty AU, Khalil M, Otubu JAM: Knowledge and attitude to cervical cancer screening among women in Maiduguri, Nigeria. *Journal of Obstetrics and Gynaecology*, 1999, 19: 295-297.
7. Aboyeji PA, Ijaiya MA, Jimoh AAG. Knowledge, attitude and practice of cervical smear as a screening procedure for cervical cancer in Ilorin, Nigeria. *Trop. J. Obstet Gynaecol*. 2004; 21: 114-117.
8. Nieminen P, Kallio M, Hakama M. The effect of mass screening on incidence and mortality of squamous and adenocarcinoma of the cervix uteri. *Obstet Gynaecol* 1995; 85: 1017-1020.
9. Deschamps MB, Itislop TG, Clerke HF, Smith SM, To Yee Ng V. Barriers to cervical cytology screening in native women in British Columbia *Cancer Detection and Prevention* 1992, 16: 337-339.
10. Ijaiya MA, Aboyeji PA, Buhari MO. Cancer of the cervix in Ilorin, Nigeria. *W A J M* 2001; 23: 319-321.
11. Comprehensive cervical cancer control: a guide to essential practice. *WHO* 2006: 79-117.
12. Schwarts PE, Hadjimicheal O, Lowel DM, Merino MJ and Janerich D: Rapidly progressive cervical cancer: The Connecticut experience. *Am. J. Obstet. Gynaecol* 1996; 175: 1105.
13. Ajayi IO, Adewole IF. Determinants of utilization of cervical cancer screening facility in a low socio-economic setting in Nigeria. *Journal of Obstetrics and Gynaecology* 1998; 18: 154-158.
14. Behtash N, Mehrdad N. Cervical cancer: Screening and prevention *Asian Pac J Cancer Prev* 2006; 7: 683-6.
15. Babarinsa IA, Adewole IF: Knowledge and attitude to utilization of cervical cytology screening by female workers in a Nigerian Teaching Hospital. *Nig. Med. Pract.*
16. Udigwe GO: Knowledge, attitude and practice of cervical cancer screening (pap smear) among female nurses in Nnewi, South Eastern Nigeria *Niger J Clin Pract* 2006; 9: 40-3.
17. Akujobi CN, Ikechibelu JI, Onunkwo I, Onyiaorah IV: Knowledge, attitude and practice of screening for cervical cancer among female students of a tertiary institution in South Eastern Nigeria. *Niger J Clin Pract* 2008; 11: 216-9.
18. Yu CK, Rymer J. Women's attitudes to and awareness of smear testing for cervical cancer. *Br. J Fam Plann* 1998; 23: 127-33.