

Cervical Cancer Screening by Female Workers in South East Nigeria

*Eke NO¹, Eke CO², Nwosu BO¹, Akabuike JC¹, Ezeigwe CO¹, Okoye SC¹

ABSTRACT

Introduction: *Cervical cancer is one of the commonest female cancers especially in developing countries. Efforts towards its prevention worldwide have focused on screening women at risk of disease using Pap smears and treating pre-cancerous lesions. A good knowledge and understanding of the level of practice of cervical cancer screening among female workers in south east Nigeria will help in creating population-specific healthcare programs and interventions aimed at improving women's health.*

Objectives: *To determine the perception and practice of cervical cancer screening among female workers in south east Nigeria as well as ascertain the influence of age, educational status and marital status on the practice of cervical cancer screening among this group.*

Method: *A cross-sectional descriptive study carried out among female workers in Nnewi who were selected using multi-stage approach between December 2007 and January 2008. Tests of statistical significance were done using chi square test at 95% confidence interval.*

Results: *A total of 172 females responded. The mean age was 29.7 ± 8.8 years and the ages ranged from 15 to 65 years. One hundred and twenty-three respondents (71.5%) knew about cervical cancer screening. Only 12 (9.8%) of the respondents who were aware of Pap smear had done the test, of which 9 (75.0%) had disease detected. There was no statistically significant association between educational level, age and marital status respectively and the practice of cervical cancer screening.*

Conclusion: *There is a very low level of practice of cervical cancer screening in this group. Educational level, age and marital status were found not to affect the practice of cervical cancer screening.*

Key words: *Cervical cancer, workers, practice, Nigeria.*

INTRODUCTION

The maintenance of good health is essential for every individual. Life expectancy has improved in both developed and developing countries over the past decades and is expected to continue to rise. This would be enabled by improvement on practice of periodic

health check up¹. These check ups are necessary to detect problems such as cancers and other diseases².

Cervical cancer is the commonest genital tract cancer worldwide and one of the leading causes of death from cancer among women in developing countries^{3,5}. It is therefore a major female reproductive health problem. Roughly 80% of newly diagnosed cases of cervical cancer are in developing countries. Rates are highest in Central America, Sub-Saharan Africa and Melanasia⁴. There are approximately 1500 deaths in England and Wales yearly from cancer of the cervix⁶. Cervical cancer is the leading cause of cancer-related death in the Socialist Republic of Vietnam and the leading cause of mortality in women over 35 in Chile⁷. It is the most common cancer among women in Thailand and in India, with approximately 71,600 new cases occurring each year in India⁸. Among Filipino women, the incidence is 9.6 per 100,000⁹. In South Africa, cervical cancer is the most common cancer among women and accounts for about 25% of cancer deaths among black South African women⁷. Hospital based registries in Kenya indicate that cervical cancer accounts for 8 - 20% of all cancer cases from 1981 to 1990⁷. It is the commonest malignancy of women in Uganda⁹.

A study done at Ibadan, Nigeria⁵, designed at finding out the level of knowledge of female health workers about cervical cancer and the level of utilization of preventive measures showed that Knowledge about the condition was high among doctors, inadequate among nurses and poor among hospital maids. It also showed 93.2% of respondents have never had Pap smears performed. The poor utilization of the cervical screening test was independent of respondent's profession, marital status or hospital.

Cervical cancer is one type of cancer that can be prevented and, if detected early enough, cured^{4,10}. It is known that pre-cancerous lesions are detectable for 10 years or more before cancer develops⁹. Cervical cancer prevention efforts worldwide have focused on screening women at risk of disease using pap smears and treating pre-cancerous lesions⁴. Pap smear test is considered the best approach to reduce cervical cancer incidence worldwide¹¹. In the United States, the number of cervical cancer deaths decreased from 70% between 1950 and 1970 and by more than 40% between 1970 to 1999¹⁰. This is largely attributable to Papanicolau (Pap) smear test for cervical cancer screening¹⁰. Most developing countries including Nigeria have been unable to implement comprehensive Pap smear screening-based programs⁴. However, in countries where screening quality and coverage have been high, these have reduced invasive cervical cancer by as much as 90%⁴.

¹ Department of Obstetrics and Gynaecology, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria

² Department of Haematology, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria

An important reason for the much higher cervical cancer incidence in developing countries such as Nigeria is lack of effective screening programs aimed at detecting pre-cancerous conditions and treating them before they progress⁴. It is estimated that only about 5% of women in developing countries have been screened for cervical dysplasia in the past 5 years, compared with some 40 - 50% in developed countries⁴. Screening programs such as those for cervical cancer are paradigmatic of the regulatory impulse represented by systematic and periodic check ups. The ideal age for screening should be 30 - 40 years, which is the age when women are at highest risk, and also in the younger women especially the sexually active ones⁹.

The Human Papilloma virus (HPV) has been implicated to be the probable cause of almost all cervical cancers worldwide, as recent study estimates HPV prevalence in cervical cancers at 99.7%⁴. Primary prevention of HPV infection would greatly reduce cervical cancer mortality⁴. Visual Inspection with Acetic acid (VIA) is also in use as a measure for early detection of cervical cancers¹².

The women constitute a significant economically active population in south east Nigeria, and majority is of age at risk of cervical cancer. This makes their preventive health behavior an important issue of public health concern. Little work has been done to ascertain the preventive health behavior of female workers in south east Nigeria, with respect to cervical cancer. The findings from this study will therefore help in creating population-specific health programs and interventions aimed at improving the preventive health behavior and quality of life of female workers in Nigeria.

METHODOLOGY

This is a cross-sectional descriptive study done among female workers in Nnewi, south east Nigeria from December 2007 to January 2008. Multi-stage approach was used to select females in Nnewi North Local Government Area, who work in hospitals, banks, secondary schools and the local government area secretariat at their various places of work and included in the study. Consent to answer the questionnaire was sought from the individuals, after due explanations to them, as well as assuring them of the confidentiality in answering the questionnaires. The questionnaires were handed over to the individuals who gave their

consent and collected back once the individuals had completed their questionnaires. The data obtained were analyzed using Epi info software, version 2000. Tests of statistical association were done using the chi square test at 95% confidence interval.

RESULTS

A total of 172 females responded and were included in the study. The mean age of the respondents was 29.7± 8.8 years. The predominant age group was 26-35 years (40.1%). Majority of them were married (56.4%). Most of the respondents (93.0%) had post secondary school education. Majority of them were health workers (42.4%), then teachers (27.9%). The respondents were predominantly Catholics (42.4%), then Anglicans (34.9%). The socio-demographic characteristics of the respondents are shown on table I.

A total of 123 respondents (71.5%) knew about cervical cancer screening. Majority of the respondents (40.7%) felt Pap smear should be done twice yearly, followed by yearly (37.4%). However the majority of health workers felt it should be done yearly (39.3%) followed by twice yearly (35.7%). Majority of the non health workers feel it should be done twice yearly (44.8%), and 35.8%, yearly (table II).

Of the respondents who were aware of cervical cancer screening, only 12 (9.8%) had gone for Pap smear. The age group with least level of practice is 36-45 years (4.5%). The workers with highest level of practice were bankers (44.4%) followed by teachers (11.1%). Only 5.4% of health workers had practiced such. No company worker had undergone Pap smear. No respondent with secondary level of education had undergone Pap smear. Only 12 (10.1%) of respondents with post secondary school level of education had undergone such. Only 7 (14.0%) of married respondents and 5 (6.8%) of single respondents had undergone Pap smear. See table III.

Only 3, (25.0%) of respondents who have undergone Pap smear did so within the preceding 6 months (table IV). Majority of the respondents who had not undergone Pap smear had no reason (40.5%). Others felt it was not necessary (18.9%) and some others had no time (14.4%). Of the respondents who had undergone Pap smear test, 9 (75.0%) had detected disease through screening.

Table 1: Socio-demographic characteristics [n=172]

VARIABLE	NUMBER	PERCENTAGE
AGE		
15-25 years	67	39.0
26-35 years	69	40.1
36-45 years	31	18.0
46-55 years	2	1.2
≥ 56 years	3	1.7
MARITAL STATUS		
Single	97	56.4
Married	75	43.6
EDUCATIONAL LEVEL		
Secondary	12	7.0
Tertiary	84	48.8
University Degree	60	34.9
Post-Graduate Degree	16	9.3
OCCUPATION		
Health Worker	69	40.1
Civil Servant	31	18.0
Teacher	48	27.9
Banker	18	10.5
Company Worker	6	3.5
RELIGION		
Catholic	73	42.4
Anglican	60	34.9
Methodist	1	0.6
Pentecostal	37	21.5
Muslim	1	0.6

TABLE II
How Often Cervical Cancer Screening Should Be Done

[N=123]

INTERVAL	HEALTH WORKERS [n=56]		OTHERS [n=67]		TOTAL [N=123]	
	NUMBER	%	NUMBER	%	NUMBER	%
Monthly	7	12.5	3	4.5	10	8.1
6 months	20	35.7	30	44.8	50	40.7
1 year	22	39.3	24	35.8	46	37.4
2 years	2	3.6	3	4.5	5	4.1
3-5 years	1	1.8	0	0	1	0.8
Don't know	4	7.1	7	10.4	11	8.9

Table III: Practice of cervical cancer screening

VARIABLES	YES		NO	
	NUMBER	%	NUMBER	%
AGE GROUP				
15 – 25 yrs [n=54]	3	5.6	51	94.4
26 -35 yrs [n=43]	6	14.0	37	86.0
36 – 45 yrs [n=22]	1	4.5	21	95.5
46 – 55 yrs [n=2]	2	100	0	0
56 yrs & above [n=2]	0	0	2	100
OCCUPATION				
Health worker [n=56]	3	5.4	53	94.6
Civil servant [n=19]	1	5.3	18	94.7
Teacher [n=36]	4	11.1	32	88.9
Banker [n=9]	4	44.4	5	55.6
Company worker [3]	0	0	3	100
EDUCATIONAL LEVEL				
Secondary [n=4]	0	0	4	100
post – secondary [n=119]	12	10.1	107	89.9
MARITAL STATUS				
Single [n=73]	5	6.8	68	93.2
Married [n=50]	7	14.0	43	86.0
TOTAL [n=123]	12	9.8	111	90.2

**TABLE IV
How Long Ago Respondents Had Their Last Pap Smear**

HOW LONG AGO	NUMBER	PERCENTAGE
<6 months	3	25.0
6 months – 1 yr	4	33.3
1-2 years	1	8.3
>2years	4	33.3
TOTAL	12	100

DISCUSSION

Knowledge of Pap smear was generally high among the respondents (71.5%). This is not surprising as most respondents had post secondary levels of education. This is in keeping with findings of a study done in Benin, Nigeria¹¹ and among Filipino women¹³.

Only very few (9.8%) of respondents who knew about Pap smear had undergone the screening. This is very poor and in keeping with findings in a work done in Benin Nigeria¹¹. The level of practice is much less than that found in a study among Filipino women¹³ and in Uganda⁹. Age was found not to have any direct

relationship with level of practice [$\chi^2=0.1171$; $df=$; $p>0.05$]. Surprisingly, the level of practice was much higher among bankers (44.4%) than health workers (5.4%). The very low level of practice among health workers is in keeping with the findings in a study done at Ibadan, Nigeria⁴ and in Benin, Nigeria¹¹. The level of practice is much less in studies carried out in Kano, Nigeria¹⁴ and in the United Arab Emirates (UAE)¹⁵.

Not surprisingly, only respondents with post secondary school levels of education had undergone Pap smear. Educational level was however, not found to significantly affect the practice of Pap smear

$[\chi^2=0.4466; df=1; p >0.05]$. Practice of Pap smear is found to be higher among married respondents (14.0%) than the single ones (6.8%). This difference is however, not statistically significant $[\chi^2= 1.72; df=1; p>0.05]$. This slight difference may be due to the fact that married respondents are usually older and are more likely to be sent for the screening by physicians.

Only 25% of the respondents who had undergone Pap smear did so within the preceding 6 months. Majority of the respondents who do not practice Pap smear screening do not have any reason (40.5%). This suggests a poor knowledge of the benefits of cervical cancer screening.

Majority of respondents (75%) who have practiced Pap smear had detected disease through the screening. This suggests that majority of the patients that had undergone Pap smear might have presented symptomatically to a physician and were subsequently sent for the screening.

CONCLUSION

This study revealed a high level of awareness of cervical cancer screening and a very poor level of practice of the screening test. Educational status, age and marital status did not influence on the practice of cervical cancer screening.

Effort should be made by the government and other health agencies to encourage female workers to practice cervical cancer screening as well as educate them on the various risk factors. Health information dissemination as regards medical check up and cervical cancer screening should be improved by appropriate authorities to enhance the practice of cervical cancer screening. Female education should be encouraged by the government as it will help improve the knowledge and practice of cervical cancer screening, as well as preventive health behavior in general.

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