

Knowledge, Attitude and Cervical Cancer Screening Among Female Secondary School Teachers in Osogbo, Southwest Nigeria

D.A. Adekanle, A.S. Adeyemi and A.F. Afolabi

Department of Obstetrics and Gynaecology, College of Health Sciences, Ladoke Akintola, University of Technology, P.M.B. 4400, Osogbo, Osun State, Nigeria

Abstract: Cervical cancer is the second cause of cancer death after breast cancer among Nigerian women till date which is not in developed world due to availability of screening and its high uptake in these regions of the world. Various studies have been carried out across different ethnic and professional groups except among the teachers in high schools which can be classified as elites in the society. Results revealed that there is high awareness of the screening with low uptake. However, those with better knowledge of the disease had significant higher uptake of the screening compared with those with lower knowledge. Though the overall uptake is still low. The study had demonstrated the effect of health education on disease prevention. The morbidity and mortality associated with this condition can be greatly reduced if not completely eliminated provided that the policy makers in our country make it a priority through family life education at all levels of our educational systems coupled with availability of the screening in all health facilities and school clinics.

Key words: Cervical cancer • Screening • Uptake • Secondary school teachers

INTRODUCTION

Carcinoma of the cervix is a major public health problem throughout the world, [1,2]. It is the commonest gynaecological cancer and second only to cancer of the breast as a leading cause of cancer death world-wide [3,4]. WHO estimated that the contribution of cervical cancer to adult female death is 35% [5-7]. It remains the most common malignancy among women in Nigeria [8]. About 370-500,000 cases are newly diagnosed annually with 80% of it being from developing countries [2,9]. Cancers of the cervix account for about 20-33 % of the gynaecologic clinic population at Ladoke Akintola University of Technology Teaching Hospital Osogbo, Nigeria and majority, over 80% of them presented at advanced late stage of the disease. Studies have been conducted on cervical cancer screening uptake among the University undergraduates, Market women and female health workers, however, the awareness of the disease was high 40.8-71.0%, but the screening uptake was abysmally low (0.3-8.3%), [1,4,10,11].

Female secondary school teachers represent the educated sector as well as a port of entry to the

adolescent population, their students. They are thus another important target population. The aims of our study were to determine their level of awareness on cervical cancer, its screening and the level of screening uptake.

Methodology Study Area: The study was carried out in Osogbo metropolis, southwest Nigeria. It is a state capital, located at the western region of the country. It is made up of two local governments, Olorunda and Osogbo local governments with a population of 794 female teachers: 359 and 435 respectively according to Teaching service commission (TESCOM) 2006 records. Osogbo metropolis has twenty seven secondary schools out of which 15 schools were randomly selected.

Target Population: Female Secondary School Teachers in Osogbo metropolis.

Study Design: Descriptive cross-sectional study.

Sample Size: The sample size was calculated.

Corresponding Author: D.A. Adekanle, Department of Obstetrics and Gynaecology, College of Health Sciences, Ladoke Akintola, University of Technology, P.M.B. 4400, Osogbo, Osun State, Nigeria.
Tel: +2348035379325.

$$\text{Using } N = Z^2 Pq / d^2$$

Where Z is a constant = 1.96

P = prevalence of knowledge of cancer of cervix in previous study was 60%

$$q = 1 - p$$

$$d = \text{normal deviation} = 0.05$$

$$\text{therefore } N = \frac{(1.96)^2 \times 0.6 \times 0.4}{(0.05)^2} = 368.79$$

None response rate of 20% was added to the sample size i.e. $369 + 74 = 443$. Therefore a sample size of 443 respondents was used. However, only 407 (91.9%) were suitable for analysis.

Sample Technique: Multistage sampling technique was used.

Data Collection: The survey instrument was a 27 item self administered structured questionnaire. Purpose of the study was explained and verbal consent obtained ethical approval was also obtained from Osun State Ministry of education. A pre-test of the questionnaire was carried out among fifteen Secondary School Teachers attending antenatal and Gynaecologic clinic of Ladoke Akintola University of Technology Teaching Hospital before the final version of the questionnaire was developed. The questionnaire contained both closed and open ended questions that addressed personal data, depth of knowledge about cancer of the cervix, human papilloma virus, papanicolaou test and its utilization.

A short enlightenment programme on this subject was also staged in each staff room immediately after collection of the filled questionnaire forms.

Data Management: Information obtained was entered into SPSS version 14. Frequency was used for categorical variables, mean and standard deviation for continuous variables. Measure of association was carried out using chi-square and student t-test, all put at P value of less than 5%. In knowledge scoring, correct knowledge was scored one while incorrect answer was scored zero.

RESULTS

Mean age of respondents in this study was 38.8 years (± 8.25). Most of the respondents, 181(44.5%) were certain that cervical cancer is common, 62(15.2%) were not

while, 164(40.3%) were unsure. Twenty two (5.4%) had pap smear at the time the study was carried out. Lack of awareness of the test, 238(58.5%) and where it could be done, 50(12.5%) were major reasons for failure to have the screening done. There were 11(2.7%) respondents within age range of 20-24 years, 44(10.8%) for 25-29 years, 72(17.7%) for age range 30-34 years, 66(16.2%) for 35-39 years and 77(18.9%) for 40-44 age range. 22(5.4%) did not indicate their age while 115(28.3%) were aged 45 years and above. Most were married 343(84.3%) while 50(12.3%) were still single. Eight (2.0%) were divorced, 3(0.7%) were widowed, 1(0.2%) was separated from her husband while 2(0.5%) did not indicate their marital status.

Table 1: Socio-Demographic Characteristics

| Variables | Number | Percentages |
|-------------------------------------|--------|-------------|
| Marital Status | | |
| Single | 50 | 12.3 |
| Married | 343 | 84.3 |
| Separated | 1 | 0.2 |
| Divorced | 8 | 2.0 |
| Widowed | 3 | 0.7 |
| Not indicated | 2 | 0.5 |
| Ethnic Tribe | | |
| Yoruba | 375 | 92.1 |
| Ibo | 6 | 1.5 |
| Hausa | 3 | 0.7 |
| Other tribes | 20 | 4.9 |
| Not indicated | 3 | 0.7 |
| Educational Status | | |
| National Certificate of Education | 101 | 13.8 |
| Higher National Diploma | 39 | 9.6 |
| University Education(First degree) | 244 | 60.0 |
| University education(Second degree) | 11 | 2.7 |
| Not indicated | 12 | 2.9 |
| Disciplines | | |
| Pure and applied Sciences | 62 | 15.7 |
| Biological science | 40 | 9.8 |
| Engineering | 13 | 3.2 |
| Social sciences | 100 | 24.6 |
| Humanity | 56 | 13.8 |
| Not indicated | 1 | 0.2 |
| Family Types | | |
| Monogamy | 328 | 80.6 |
| Polygamy | 25 | 6.1 |
| Not applicable | 54 | 13.3 |
| Sex Partners | | |
| Nil | 56 | 13.7 |
| Single | 264 | 64.9 |
| Multiple = 2 | 87 | 21.4 |
| Currently Smoking | | |
| NO | 394 | 96.8 |
| YES | 2 | 0.3 |
| Not indicated | 11 | 2.7 |
| Ever Smoked | | |
| NO | 391 | 96.1 |
| YES | 5 | 1.2 |
| Not indicated | 11 | 2.7 |

Table 2: Factors Influencing Screening Uptake

| VARIABLES | HAD PAP SMERS NUMBER (%) | NO PAP SMEAR NUMBER (%) | χ^2 | DF | P VALUE |
|---------------------------|--------------------------|-------------------------|----------|-----|---------|
| Marriage | | | | | |
| Married | 20(6.0) | 312(94.0) | F | | 0.552 |
| Single/Separated/Divorced | 2(3.1) | 63(96.9) | | | |
| Family Types | | | | | |
| Monogamy | 17(5.2) | 311(94.8) | 4.85 | 1 | 0.028 |
| Polygamy | 4(16.0) | 21(84.0) | | | |
| Coitacheal age(years) | | | | | |
| < 20 | 6(8.7) | 63(91.3) | 1.60 | 1 | 0.282 |
| = 20 | 15(5.3) | 269(94.7) | | | |
| Sex partners | | | | | |
| Null | 1(1.8) | 55(98.2) | 3.998 | 2 | 0.135 |
| Single | 13(4.9) | 251(95.1) | | | |
| Multiple = 2 | 28(9.2) | 79(90.8) | | | |
| Knowledge Score | | | | | |
| Mean Score | 2.45 | 1.87 | t= 3.712 | 394 | < 0.001 |

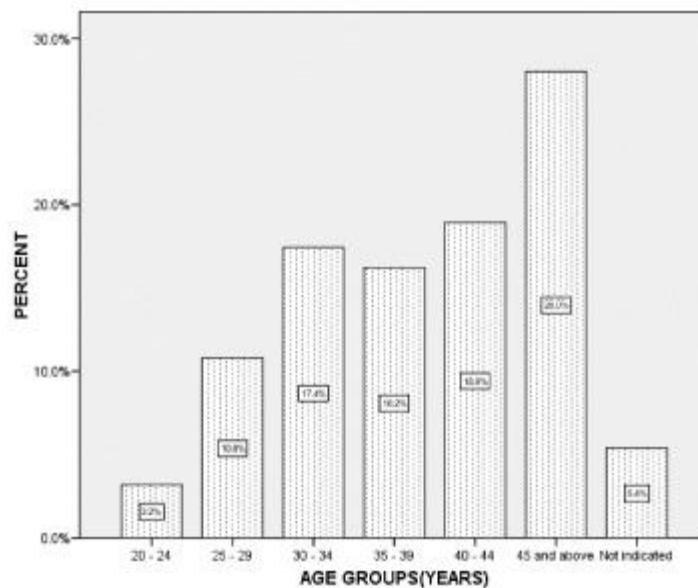


Fig. 1:

Of the three main tribes in Nigeria, majority of respondents were from Yoruba tribe 375(92.1%), 6(1.5%) from Ibo extraction while 3(0.7%) were from Hausa ethnic group. Three (0.7%) did not indicate their tribe, while 20(4.9%) were from minority tribes in Nigeria. Eleven (2.7%) respondents had Masters Degree while the majority 244(60.0%) had university first degree certificate. Thirty-nine (9.6%) had Higher National Diploma certificate, 101(24.8%) had National certificate of Education and 12(%) did not indicate their level of education.

Most of the respondents 264(64.9%) had only one sex partner up to the time the study was carried out and 87(21.4%) had multiple sex partners. Fifty-six (13.8%) of them however never had not been sexually exposed. A hundred (24.6%) of the respondents studied Social

sciences, 62(15.2%) read Pure and applied sciences and 56(13.8%) graduated in Humanity. Thirteen (3.2%) Engineering sciences, 40(9.8%) Biological sciences and rest 135(33.2%) other disciplines such as education. One (0.2%) respondent did not indicate her discipline.

Two (0.5%) were still smoking at the time of the study, majority 394(96.8%) were not smoking and 11(2.7%) respondents were silent about their smoking status. Five (1.2%) respondents had ever smoked, majority 391(96.1%) never did and 11(2.7%) respondents did not comment on this. Twenty five (6.1%) of them were from polygamous union, 54 (13.3%) did not indicate while the majority 328(80.6%) were in monogamous union (Table1).

There is no significant association between marital status, Educational level, discipline, contraceptive use and utilization of papanicolaou smear.

However, those who had good knowledge of cervical cancer screening 12.8% had higher rate of pap smear uptake than those with poor knowledge 4.6% and this is statistically significant ($\chi^2=4.638$, $p=0.031$); though the average uptake was very low, which was 5.4% over all. Likewise, respondents with multiple sex partners {9.2%} had more papanicolaou smear uptake than those with single sex partner {4.9%}; but this was not statistically significant ($\chi^2=3.998$, $p=0.135$).

Those respondents in polygamous union {16.0%} had higher uptake of cervical cancer screening than those in monogamous union [5.2%] which is statically significant ($\chi^2=4.853$, $p=0.0028$). Those who initiated sexual intercourse at age below 20years had higher cervical cancer screening uptake (8.7%) than those who initiated sex above 20years of age (5.3%); though this is not statistically significant ($\chi^2=1.160$, $p=0.282$), (Table 2).

DISCUSSION

Cervical cancer will remain one of the commonest female genital cancer in Nigeria for decades to come if concerted and sustained efforts are not geared towards preventive measures. This study has shown abysmal low uptake of cervical cancer screening, 5.5% despite significant awareness level of the disease, 44.5%, which agrees with several studies in our environment but in different subject groups [1,12-16]. Cervical cancer screening centres are still very few in our environment, mostly concentrated in urban areas and hospital-based [17,18], this might account for low awareness of where the screening can be obtained as demonstrated in this study which also contributes to low uptake. However, other reasons for the low uptake identified in this study were cost, indifference and socio-cultural beliefs that it does not run in their families and they cannot be a victim of the disease despite their high level of formal education which support findings in other studies in this environment [13,14]. This portends a grave danger to prevention of cervical cancer if this group of people are not adequately informed for attitudinal changes, not only that they have risk factors to developing cervical cancer, but also have great influence on the adolescents under their tutelage and other female adults that may depend on them for health related informations. The role of professional and public education combined with availability of treatment of early stage of invasive cervical cancer cannot be overemphasized as this have been shown to reduce morbidity and mortality associated with the disease [19].

This study has demonstrated that those with better knowledge of cervical cancer had higher uptake of the screening though the overall uptake was low, this supports the role of education in disease prevention [19-20].

In African setting, polygamy is still widely practiced even among the elites as shown in this study, however, those in monogamous union had significant less uptake of screening even though their male partners may have other sex partners which is an acceptable norm in our environment while those in polygamy might have considered themselves at risk and since in this type of union every woman takes care of herself and her children thus probably increase their uptake of the screening.

CONCLUSION

Cervical smear uptake is still generally low among the teachers in the secondary schools. However, it is lower among those with low knowledge and those in monogamous union. Health education combined with availability of the screening at affordable cost are major factors in reducing the scourge of the disease in this part of the world.

REFERENCES

1. Ayinde, O.A. and A.O. Omigbodun, 2003. Knowledge, attitude and practices related to prevention of cancer of the cervix among female health workers in Ibadan. *J. Obstet Gynaecol.*, 23(1): 55-58.
2. Edozein, L.C. and I.F. Adewole, 1993. Cervical cancer in Nigeria a need for early detection. *Afr J. Med. Sci.*, 22: 87-92.
3. Aseven, M.I. and S. Ahamanimugan, 1997. Review of cervical cancer at the University of Benin Teaching Hospital, Benin-City, In: *Obstetric and Gynaecology in developing countries*, Proceeding of an International conference. Society of Obstetrician and Gynaecologists of Nigeria.
4. Ogunbode, O.O. and O.A. Ayinde, 2005. Awareness of cervical cancer and screening in a Nigerian female market population. *Annals of African Medicine*, 4(4): 160-163.
5. WHO, 1986. Control of cancer of the cervix uteri, *Bull.*, 64: 607-618.
6. Stanley, K.S. and V. Koroltch, 1987. Women and cancer. *World Health Stat Quart.*, pp: 267-268.

7. WHO, 2002. Exploring adolescent reproductive health research on reproductive Health at WHO: 2000, 2001. Biennial Report, pp: 43-45.
8. Bassey, E.A., M.D. Ekpo and A. Abasiatai, 2007. Female genital tract malignancies in Uyo, South-South Nigeria. *Niger Postgrad. Med. J.*, 14(2): 134-6.
9. Ekanen, E. and R. Abidoyeji, 1987. Some epidemiological and clinical features of cervical cancer in Lagos. *Nigeria Public Health*, 101: 123-128.
10. Arowojolu, A.O., A.O. Ilesanmi, O.A. Roberts and M.A. Okunola, 2002. Sexuality, contraceptive choice and AIDS awareness among Nigeria undergraduates. *Afr. J. Reprod. Health*, 6(2): 60-70.
11. Aboyeji, P.A., A.M. Ijaiya and A.A. Jimoh, 2004. Knowledge, Attitude and Practice of Cervical Smear as a Screening Procedure for Cervical Cancer in Ilorin. Nigeria. *Trop. J. Obstet Gynaecol.*, 21(2): 164-167.
12. Ayinde, O.A., A.O. Omigbodun and A.O. Ilesanmi, 2004. Awareness of cervical cancer, Papanicolaou's smear and its utilisation among female undergraduates in Ibadan. *Afr J. Reprod. Health*, 8(3): 68-80.
13. Udigwe, G.O., 2006. Knowledge, attitude and practice of cervical cancer screening (pap smear) among female nurses in Nnewi. South Eastern Nigeria, *Niger J. Clin. Pract.*, 9(1): 40-3.
14. Gharoro, E.P. and E.N. Ikeanyi, 2006. An appraisal of the level of awareness and utilization of the Pap smear as a cervical cancer screening test among female health workers in a tertiary health institution. *Int. J. Gynecol. Cancer*, 16(3): 1063-8.
15. Nwobodo, E.I. and S.A. Malami, 2005. Knowledge and practice of cervical screening among female health workers in Sokoto, North Western Nigeria. *Niger Postgrad Med. J.*, 12(4): 255-7.
16. Anya, S.E., D.C. Oshi, S.O. Nwosu and A.E. Anya, 2005. Knowledge, attitude and practice of female health professionals regarding cervical cancer and Pap smear, *Niger J. Med.*, 14(3): 283-6.
17. Anorlu, R.I., K.A. Ribiu, O.O. Abudu and E.R. Ola, 2007. Cervical cancer screening practices among general practitioners in Lagos Nigeria. *J. Obstet Gynaecol.*, 27(2): 181-4.
18. Adesina, O.A., I.A. Babarinsa, O.A. Fawole, A. Oladokun, A.R. Adeniji and I.F. Adewole, 2003. Cervical cytology service in Nigeria: providers' perspective. *J. Obstet Gynaecol.*, 23(4): 416-8.
19. Ajayi, I.O. and I.F. Adewole, 1998. Determinants of utilisation of cervical cancer screening facility in low socio-economic setting in Nigeria. *J. Obstet. Gynaecol.*, 18(2): 154-158.
20. Oladepo, O., O.L. Ricketts and Y. John-Akinola, 2008-2009. Knowledge and utilization of cervical cancer screening services among Nigerian students. *Intl. Quarterly of Community Health Edu.*, 29(3): 293-304.