

## **AWARENESS OF CERVICAL CANCER AND ITS PREVENTION AMONG YOUNG WOMEN IN EKITI STATE, SOUTH-WEST NIGERIA.**

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### **ABSTRACT**

**Background:** Cancer of the cervix is a major public health issue in the developing countries. The burden of the disease is considerable with associated morbidity and mortality among women in their productive years. The lack of awareness and adequate information about cervical cancer and its prevention may be responsible for the large burden of cervical cancer on the developing countries.

**Objective:** To assess the knowledge of cervical cancer, its risk factors and prevention among young women in Ekiti State.

**Methods:** This was a descriptive cross-sectional questionnaire based survey of young women aged 15-24 years in randomly selected local government areas in Ekiti State in June 2013. Means, frequencies and percentages were determined and frequency tables were generated using SPSS software version 16.0.

**Results:** A total of 444 young females participated in this study. Among the respondents, 69.4% were sexually active with only a quarter consistently using condom. Only 54.3% had heard cervical cancer, 2.9% knew the risk factors and a quarter knew no risk factor for cervical cancer. A tenth of the respondents knew about human papilloma virus (HPV) and a similar number knew about the HPV vaccine. Only 9% have heard about Pap smear while 1.4% have had pap smear at least once.

**Conclusion:** Our study revealed poor knowledge of cervical cancer and its prevention among young women in this environment. There is a need for increase in public awareness of cervical cancer and its prevention. Provision of adequate information, community mobilization, proper service delivery, women empowerment and political will are essential in reducing this burden in the developing world.

### **INTRODUCTION**

Cancer of the cervix is the most common female genital tract cancer and the incidence is disproportionately high in developing countries. Above 300,000 new cases are diagnosed annually and 85% are from the developing countries<sup>1</sup>. The lower burden in the developed countries is a reflection of the

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established screening protocol in those countries and the lack of such in the developing countries is most likely responsible for the high prevalence of cervical cancer in such countries. This preventable disease is a major contributor to mortality in the female population worldwide.<sup>2,3</sup>

Human Papilloma Viruses are a prime etiologic factor in the development of CIN and cervical cancer, with HPV DNA found in 99.7% of cervical cancers.<sup>4</sup> HPV is the most common sexually transmitted infection worldwide; 60-80% of sexually active women are infected at least once in their lifetime,<sup>5,6</sup> with peak incidence between 22 and 25 years due to the high risk behavior of adolescents and young adults. The risk factors for cervical cancer include immunosuppression, infection with HIV, a history of other sexually transmitted diseases, multiple sexual partners in the woman or her partner, early coitarche, uncircumcised male partners, tobacco use, high parity, and oral contraceptive use.

Research among university undergraduates has shown there is poor knowledge of HPV and related cervical cancer risks among young females.<sup>7-9</sup> The documented risky sexual behavior of young adults and lack of knowledge of cervical cancer and its preventive measures such as pap smear and HPV DNA testing could set a platform for development of cervical cancer later in life. It is therefore essential that if the menace of cervical cancer would be curbed, then the education of the adolescents and young adults on prevention and screening for cervical cancer should be put in place as a protective measure for the future generation.

This study was carried out to assess the knowledge of the risk factors associated with

cervical cancer and the knowledge and attitude of females aged 15-24 years in Ekiti State, South-west Nigeria towards cervical cytology. This would help define the need for awareness and sensitization about the disease among the future generation of women with the aim of reducing the burden of the disease in future.

## **MATERIALS AND METHODS**

This was a descriptive cross-sectional study carried out between May and June 2013 among females aged 15-24 years within randomly selected communities in Ekiti State. The sample size was calculated using the fisher formula, assuming 50% of the females in this age group had sufficient knowledge of cervical cancer. A sample size of 384 was determined to be adequate. A total of 460 females were randomly selected to improve the power of the study and make provision for non-response.

A semi-structured pilot tested questionnaire was used in conducting this study. The questionnaire included questions on awareness of cervical cancer, risk factors, human papilloma virus and cervical cancer screening. The questionnaire was composed in English Language and the questions were simple and concise.

The objectives of the study were stated at the introductory portion of the questionnaire, and consent was demonstrated by signing an allotted part of the questionnaire and completing the questionnaire. The questionnaire was self-administered and anonymity was ensured.

Permission to conduct the study was obtained from the research regulatory body of the Ekiti State Ministry of health.

Data obtained from completed questionnaires were entered into Microsoft excel 2010 spreadsheet and imported to SPSS software

version 16 for analysis. Data obtained at the end of the study were analyzed using the computer software SPSS version 16. Means, frequencies and percentages were determined and frequency tables were generated.

**RESULTS**

A total of 444 females completed the survey questionnaires, giving a response rate of 96.5% (N=460). The mean age of the study population was 20.8± 3.75years. Majority of the respondents, 69.4%, were currently involved in sexually activity, and the average age at sexual debut 17.2 years. (Table 1)

Only a quarter of those who are sexually active reported consistent use of condoms while 22.1% stated they hardly ever use or never use condoms during sexual intercourse. The major reasons stated for non-use were pain (47.1%) and poor sexual satisfaction (42.6%). Other reasons stated include inconvenience, difficulty with purchase, unpleasant smell, irritation.

In assessing knowledge about cervical cancer and its risk factors, 54.3% of participants had heard about cervical cancer and about a quarter reported that it is the most common female genital tract malignancy. The major sources of information were the media (34%), doctors/nurses (27.4%) and other healthcare providers including community health workers (18.7%). Other sources of information were parents, friends, religious bodies and outreaches. Most of the respondents, 75.7%, knew at least one risk factor for cervical cancer, while 42.3% knew only one risk factor, only thirteen (2.9%) respondents knew all the risk factors. The most commonly mentioned risk factor was smoking. Very few respondents, 10.4% have heard about human papilloma virus and its role in cervical cancer. (Table 2)

Almost half of the respondents think cervical cancer can be prevented. Abstinence/mutual fidelity (19.3%), HPV vaccination (13%) and Pap smear (6.8%) were the most common means of prevention reported by the study population.(Table 3) Only 9% of the respondents have heard about Pap smear and six(1.4%) of the respondents has ever had a pap smear done. About a third of the participants said they were not interested in the procedure; while a quarter felt it was an unnecessary test since they were not ill. More importantly, 13.5% of the respondents would love to have a pap smear done, but do not have access to the test. (Table 4)

**Table 1:** Characteristics of Respondents

Variable	Frequency	Percentage(%)
(N=444)		
<b>Age(years)</b>		
<b>Mean age= 20.8± 3.75</b>		
15-19	145	32.7
20-24	299	67.3
<b>Sexual activity</b>		
Yes	308	69.4
No	127	28.6
No response	9	2.0
<b>Age at sexual debut(years)*</b>		
<b>Mean age= 17.2± 2.82</b>		
10-19	88	28.6
>=20	60	19.5
No response	160	51.9

\*N= number of sexually active respondents=308

**Table 2:** Respondents Knowledge of Cervical Cancer and Its Risk Factors

Variable	Frequency (N=444)	Percentage (%)
Heard about cervical cancer	241	54.3
It is the commonest Female Genital Malignancy	109	24.5
Heard about Human Papilloma Virus	46	10.4
Risk factors		
Multiple sexual partners	163	36.7
Early coitarche	107	24.1
Long term use of COCP	90	20.3
Genital wart	62	14.0
Smoking	286	64.4
Others*	50	11.3
No idea	108	24.3

\*includes none use of condom, HIV infection

**Table 3:** Respondents Knowledge of Methods of Prevention

Variable	Frequency	Percentage (%)
Can cervical cancer be prevented?	192	43.2
Methods of prevention		
Health education	11	5.7
Abstinence/mutual fidelity	37	19.3
Use of condoms	4	2.1
HPV vaccine	25	13.0
Pap smear	13	6.8
Others*	11	5.7

\*avoidance of smoking, dietary modification, prompt treatment of wart

**Table 4:** Practice of Pap smear Among the Respondents

Variable	Frequency (N=444)	Percentage (%)
Know about pap smear	40	9.0
Ever had a pap smear	6	1.4
Reasons stated for not doing pap smear		
Not necessary, since I'm not ill	109	24.5
No access to the procedure	60	13.5
Not interested	140	31.5
Fear of the procedure	4	0.9
Discouraged by partner/friends	3	0.6
Because I don't know anything about pap- smear	128	28.8

## DISCUSSION

Cervical cancer is the second most common malignancy affecting women worldwide and it is the leading cause of cancer-related deaths among women in sub-Saharan Africa.<sup>2</sup> It has been predicted that by the year 2020, the incidence of cervical cancer will rise to above 10 million and deaths could rise to 7.5 million with young women accounting for 35-45% of these deaths. Women of reproductive age group are most exposed to the risk factors predisposing to this disease. The reducing age at sexual debut and sexual permissiveness are the proposed causes of the increasing burden, especially because the causative agent, human papilloma virus, is sexually transmitted.

Findings from our study suggest a high level of sexual activity among adolescents and young adults in Ekiti state. About 70% of the respondents are sexually active; this is comparable to the findings from a similar study in Uganda,<sup>10</sup> but higher than 54% reported in Ibadan<sup>11</sup> and 51% from South Africa,<sup>9</sup> although the latter studies were limited to

undergraduates. Although it was not assessed in this survey, sexual practices among adolescents and youths are usually characterized by multiple, short-term sexual relationships coupled with the inconsistent or non-use of condoms observed from this survey puts these young women at high risk of sexually transmitted infection, including HPV infection. This high-risk sexual behavior has been reported by previous studies<sup>9,11-13</sup> and sets a platform for future development of cervical cancer. The protective effect of condom use against human papilloma virus infection has been documented<sup>14</sup>, we however found inconsistent or non-use of condoms in majority of respondents. This is consistent with the findings of Ayinde et al in Ibadan<sup>15</sup> and Unuigbo and Ogbuide in Benin.<sup>16</sup>

About half of the respondents had heard about cancer of the cervix, this is less than 71% from the study carried out in Ibadan,<sup>15</sup> but higher than 43% from a South African<sup>9</sup> survey among females of similar age groups. Only thirteen(2.9%) of the respondents ticked all the risk factors for cervical cancer correctly, while about a quarter knew no risk factor for cervical cancer. Knowledge about the risk factors for cervical cancer is extremely low, further emphasized by the fact that almost half (42.3%) of the participants knew only a single risk factor. This may be a strong reason behind their practice, with respect to cervical cancer prevention.

Only a few respondents (9%) knew about pap smear and despite the prevalence of sexual activity only 6(1.4%) respondents have ever had a pap smear. These values are much less than 33.5% and 41.9% knowledge of Pap smear reported from Ibadan<sup>15</sup> and South Africa<sup>9</sup> respectively among university undergraduates.

The significantly low percentage that has had a pap smear is also less than 8.3% reported from Ibadan, Nigeria<sup>15</sup> and much less than 76% and 59% reported in Canada<sup>17</sup> and Hong-Kong<sup>18</sup> respectively, further emphasizing the reason for the disproportionate burden of the disease in this environment. This low level of knowledge of Pap smear is a major source of concern as it implies the role of Pap smear in cervical cancer prevention is not known to the population especially the youth. It is essential to note, that about a sixth of the participants would probably have done a pap smear if they had access to the test.

Only a modest tenth of the study population was aware of human papilloma virus, the sexually transmitted virus which has been implicated in development of cervical cancer. There is also a comparable percentage that believes the HPV vaccine can prevent against cervical cancer. This is not surprising, since the vaccine is relatively new, especially to this environment, and is not readily accessible either for lack of knowledge of its existence, availability or cost. There are two approved HPV vaccines, Gardasil and Cervarix. It is recommended that the vaccines should be given to girls between the ages of 10 and 12 years before they are sexually exposed. There have been advocates for the administration of the vaccine to boys of similar age, since HPV also has an effect of men, in the form of penile warts and cancers and especially because the males could be carriers of the virus.

It is obvious from this survey that there is a need for improved awareness on cervical cancer and its prevention among the youths in our environment, and even the population at large. Reproductive health education in schools is an idea that has been considered very often but is yet to be established in our environment. We

believe this could serve as a source of correct information to our adolescents and youth, especially since studies have shown that these age groups usually get their information on sexual matters from their peers and entertainment media, which are both uncertified sources. Research has however shown that both parents and teachers are often too embarrassed or factually ill-prepared to broach discussion on sexual health.<sup>19</sup>

The role of media cannot be underplayed. Citing HIV/AIDS as an example, an average Nigerian youth has heard about this infection, quite commonly through different forms of media. This can be considered in promoting cervical cancer knowledge, its risk factors and prevention. Research has shown improved uptake of cervical cancer screening services following media intervention.<sup>20</sup>

It is important that adolescent and youth friendly reproductive health services and well-women clinics be established in our environment. There has been a plea for involvement of youth in planning, implementing and evaluating programs that directly impact their lives, cervical cancer prevention being one of them.<sup>21</sup> This will probably take care of women who intend to have cervical screening, but for lack of information as to how and where it can be done are not able to access such services. This would also promote safe sex among our youths and adolescent, especially as sexual intercourse has been shown to be an integral factor in the development of cervical cancer and barrier contraception offer significant protection.

The major barrier to uptake of cervical cancer preventive methods among the youths and adolescents is the unfounded perception of low risk for cervical cancer in them. Many of the

respondents in our survey have not had a pap smear done either because they have no prior knowledge of the procedure, lack interest in screening, or believe they don't need any test since they are not ill. In order to tackle this barrier, the promotion of cervical cancer prevention and early detection should be integrated into public education about women health, especially stating that screening is done in the seemingly healthy woman and not after onset of illness.

The risk of developing cervical cancer is particularly high in sub-Saharan Africa due to the low socioeconomic characteristics, illiteracy, low prevalence of condom use, high parity and poor utilization of screening facilities.<sup>22</sup> These identified problems have been further highlighted by findings from this study. The success of a screening program can only be assessed by a decline in the incidence of a disease. Until the target or at-risk population can be reached, a reduction in incidence of cervical cancer would only remain a wish. It is therefore important that a comprehensive cervical cancer screening strategy be put in place in order to improve community awareness and access to cervical cancer screening and its benefits.

In conclusion, our study reveals that knowledge of cervical cancer, its risk factors and prevention among young women in this environment is poor. We have also demonstrated that lack of information, absence of reproductive health and sexual education, accessibility of the pap smear and the misconception of wellness with respect to perceived risk of cervical cancer are major factors limiting uptake of preventive measures. There is a need for increase in public awareness of cervical cancer and its prevention by educating young women about risk factors for cervical cancer and practicing preventive

behaviour. The health care providers, health educators, media, government, non-governmental organizations and other stakeholders should work in unison to curb the prevalence of cervical cancer and deaths that constitute a public health problem in the middle and low resource countries.

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