



Awareness of cervical cancer amongst female adolescents: A Nigerian study

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Abstract

Background: Cervical cancer is the commonest genital tract malignancy in Nigeria. Due to no organized screening modalities in this part of the world and late presentation mortality from cervical cancer is high. Awareness of cervical cancer as preventive measures amongst adolescents will curtail the disease burden and mortality in the developing countries of the world.

Aim: To determine the awareness of cervical cancer amongst adolescents in south and eastern Nigeria.

Method: The survey was a six-week cross sectional study conducted among 240 female adolescents attending a holiday camp meeting in Rivers state, Nigeria. The subjects were from ten secondary schools in the state and undergraduates from five universities in South and Eastern Nigeria. Permission for the study was granted by office of the Director of Public Health, Rivers State Ministry of Health. The information was coded and analysed using SPSS version 25.

Results: The study involved 240 subjects. The mean age was 15 years. Forty-three (17.9%) of the adolescents were below 13 years, 124 (51.6%) were between age 14 – 16 years, 73 (30.5%) were between ages 17 – 19 years. Thirty-six (15%) of the adolescents were in their junior secondary while 134 (55.8%) were in senior secondary and undergraduates were 70 (29.2%) of the adolescents. The awareness of cervical cancer amongst the subjects was 108 (45%). The awareness of cervical cancer according to educational categories of the adolescents were as follows, undergraduates were 54 (22.5%), senior secondary 23 (9.6%) and junior secondary 19 (7.9%). The commonest means of information about the cervical cancer was the media 120 (50%), followed by school 72 (30%), hospital 24 (10%) and others 24 (10%).

Conclusion: The study revealed the awareness of cervical cancer as 45% amongst female adolescents in south and eastern Nigeria. This is worrisome due to the number of morbidities and mortalities of cervical cancer in the developing countries of the world. Enlightenment and advocacy campaigns should be stepped-up amongst adolescents in these regions and in Nigeria as a country.

Keywords: Awareness; Cervical cancer; Adolescents; Nigeria

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1. Introduction

Cervical cancer is a common genital tract malignancy of public health importance globally.¹⁻⁶ Cervical cancer is the commonest genital tract malignancy in Nigeria.[1] Worldwide out of a total of 4.1 million cancer mortalities, approximately 311, 000 is contributed to by cervical cancer each year.[2] Data has revealed that nearly 570, 000 new cases are diagnosed worldwide every year ranking it as the fourth most prevalent cancer.[2,3] Researcher have shown that cervical cancer deaths are skewed towards developing countries of the world.[4,5] Sexually transmitted human papilloma Virus (HPV) 16, 18 are the prime aetiological agents for cervical cancer[1,2]

The high incidence of cervical cancer in developing countries due to low median age of marriage, prior or opportunities screening modalities in the vulnerable female population, poor or inadequate knowledge of cervical cancer and its' preventive measures.[4]

In the developed countries of the world taking the US as a case study cervical cancer screening programs have successfully reduced the incidence of invasive lesions up to 80%.⁶ Several studies across the Kingdom of Saudi Arabia (KSA) have reported lack of proper awareness and knowledge of cervical cancer, its aetiology, risk factors and the availability of any national screening testing and vaccines.[6]

The overall consequences of cancer of the cervix if not treated has a negative effect on the health of the woman.[3] To address this regular screening and timely Human papilloma Virus (HPV) Vaccination are proven to be key interventions for effective cancer control.[4-6] The World Health Organization (WHO) recommended multi age cohort HPV vaccine targeting 9 - 14years pre-pubertal girls, extending to 26 years of age before coitarche as a primary prevention measure.[4-9] In many developing countries there is sub optimal uptake of screening modalities; with less than 20% of females vaccinated against HPV.[3]

Cervical cancer is asymptomatic in the early stage and thus curable [1,2] It is therefore important to incorporate awareness of cervical cancer and preventive modalities into the school health programme as an integral part of reproductive health especially amongst adolescents. Thus the reason for this research work on the awareness of cervical cancer amongst adolescents in south and Eastern Nigeria.

Aim

To determine the awareness of cervical cancer amongst adolescents in south and eastern, Nigeria.

2. Materials and Methods

The survey was a cross sectional study conducted among 240 female adolescents attending a camp meeting in Rivers state. The subjects were from ten secondary schools in the state and undergraduates from five universities in South and Eastern Nigeria. Permission for the study was granted by office of the Director of Public Health, Rivers State Ministry of Health. The information was coded and analysed using SPSS version 25.

2.1. Study site

The study was conducted in a private secondary school in Port Harcourt, Rivers state. Ten secondary schools and five universities in south and eastern Nigeria enrolled for the holiday camp. This was organised by non- governmental organization in partnership with the Public Health department of the Rivers state ministry of health.

2.2. Study Population

These were adolescents from 10 secondary schools and 5 universities in south and eastern Nigeria.

2.3. Data Collection

There was only English version of the questionnaire since these adolescents communicated in English language in their various schools. The data was collected by trained research assistants. Human Papilloma Virus (HPV) disease is a transmitted sexually which can result in cervical cancer. The symptoms were used to describe the disease rather than the word cervical cancer this was to ensure that the adolescents understood the disease.

2.4. Data analysis

After collection of information. The data were computed and analysed using SPSS version 25. The level of significance for all statistical analysis was $P < 0.05$.

3. Results

Table 1 The number of female adolescents recruited for the study, their mean age, the level of awareness of cervical cancer and the commonest means of awareness of awareness of cervical cancer vaccination and educational category with highest awareness

Number of Adolescents recruited	240
Mean age	15 years
Level of awareness	108 (45%)
Commonest mode of information media	120 (50%)

Table 2 Distribution of age and frequencies of female adolescents

Age (years)	Frequency (n)	Percentage (%)
< 13	43	17.9
14 - 16	124	51.6
17 - 19	73	30.5
	240	100

Table 3 Distribution of female adolescents according to their educational categories

Educational category	Frequency (n)	Percentage (%)
Junior secondary	36	15
Senior secondary	134	55.8
Undergraduate	70	29.2
	240	100

Table 4 Distribution of awareness of cervical cancer amongst female adolescents with respect to their educational categories

Educational category	Frequency (n)	Percentage (n)
Undergraduate	60	25
Senior secondary	27	11.25
Junior secondary	21	8.75
	108	45

The study involved 240 subjects. The mean age was 15 years. Forty-three (17.9%) of the adolescents were below 13 years, 124 (51.6%) were between age 14 – 16 years, 73 (30.5%) were between ages 17 – 19 years. Thirty-six (15%) of the adolescents were in their junior secondary while 134 (55.8%) were in senior secondary and undergraduates were

70 (29.2%) of the adolescents. The awareness of cervical cancer amongst the subjects was 108 (45%). The awareness of cervical cancer according to educational categories of the adolescents were as follows, undergraduates were 54 (22.5%), senior secondary 23 (9.6%) and junior secondary 19 (7.9%). The commonest means of information about the cervical cancer was the media 120 (50%), followed by school 72 (30%), hospital 24 (10%) and others 24 (10%).

Table 5 Means of information of cervical cancer vaccination awareness amongst female adolescents

Mode of information	Frequency (n)	Percentage (n)
Media	120	50
School	72	30
Hospital	24	10
Others	24	10
	240	100

4. Discussion

The level of awareness of cervical cancer amongst adolescent from our study was 45% (table 1). This is worrisome taking into consideration that cervical cancer is a sexually transmitted infection and adolescents are vulnerable persons.[1] The level of awareness was lower than that of Aga SS et al study who had a figure of 70% among health workers and allied students.[5] This could be viewed from the perspective that these group of persons were within the health sectors hence the above average in the level of awareness of cervical cancer. However, in a study by Ken- Amoah S et al the level of awareness of cervical cancer in rural women population was approximately 48% this was 3% higher than that obtained in our study.[9]

This study further revealed that undergraduate adolescents were more aware of cervical cancer, as shown by 25% of the subjects when compared to their Senior Secondary (11.25%) and Junior Secondary (8.75%) counterparts respectively. This was not in agreement with a study by Egbon M et al showed the mean knowledge score amongst junior secondary school aged girls was 66.05% while for the senior secondary was 96.25%.[5] However, 5% lower than the study done by Mac-Fiberesima G.[9-11]

In a research by Mac-Fiberesima G in Port Harcourt, Nigeria among 330 female students the level of awareness of cervical cancer was 50.9%.[10] This figure was higher than the one obtainable in our study which was 45%. The possible explanation was that in their population the age range was 18-21 years (30.7%) compared to our study population of between 11 and 19 years (30.5%) refer to table 2.

As a follow-up study by Lackshmi V et al in a cross-sectional study among 256 Government female school teachers aged 22-60 years in Salem city, Tamil Nadu.[1] The level of awareness of cervical cancer was 60%. This study was also not in agreement with our study of 45% cervical cancer awareness.[1]

From our study revealed that the media was the most common means by which the adolescent had information of cervical cancer, of which 50% of the respondents obtained this information (see table 5). This was not in agreement with the study by Aga SS though the media contributed 8.9% of the information for their study.[6]

5. Conclusion

This study revealed that the awareness of cervical cancer amongst adolescents in southern and eastern Nigeria was 45%. Cervical cancer is the 4th most common genital tract malignancy globally and the commonest genital tract malignancy in Nigeria. Awareness and preventive measures of cervical cancer through screening and vaccination is key especially among vulnerable persons especially adolescents.

Compliance with ethical standards

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Disclosure of conflict of interest

There was no conflict of interest.

Statement of ethical approval

Permission for the study was granted by office of the Director of Public Health, Rivers State Ministry of Health.

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Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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