

ORIGINAL ARTICLE

Cervical Cancer Awareness, Knowledge and Risk Factors Among Health Care Students in a Nigerian University

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Abstract

Aim of study: Cervical cancer is the 4th women killer disease in the world, especially in sub-Saharan Africa. Although the disease is preventable if detected early, many women still die from it. This study was to evaluate cervical cancer awareness, knowledge and risk factors among health care students of Olabisi Onabanjo University, Sagamu Campus, Ogun State, Nigeria. This was a cross-sectional study carried out among Pharmacy and Medical 4th and 5th year students. Males were 127 (50.8%). Majority 226 (90.4%) of the respondents heard of cervical cancer, those who knew it affects mainly female gender were 217 (86.8%). Those who knew the stages of cervical cancer were 81 (32.4%). While 96 (38.4%) heard of Pap test, those who knew that Pap test is important for women of their age were 10 (4.0%) and those who see it as necessary even if there has not been family history of cancer were 234 (93.6%). The following believed that the below listed factors could increase the chances of getting cervical cancer. They include, infection with Human papillomavirus 222 (88.8%), weakened immune system 223 (89.2%), long-term use of contraceptive pills, 186 (74.4%) and having many sexual partners 211 (84.4%). $P < 0.000$. Awareness of cervical cancer and knowledge of its risk factors were appreciably high while that of Pap test was below average.

Keywords: Cervical cancer, Health care students, Knowledge, Pap test, Risk factors.

Introduction

About 260,000 women die from Cervical Cancer (CC) globally out of the more than 500,000 who come down annually with the disease¹ and majority of the cases in Africa are in sub-Saharan Africa. The high risk Human papillomavirus (HPV) genotypes 16 and 18 have been found to be the main causative organisms of CC.^{2,3} In sub-Saharan Africa, there is high cancer mortality arising from low public

awareness and knowledge about the disease as well as among primary health-care providers.^{4,5} These are needed for timely uptake for cancer screening and early detection in order to decrease the huge cancer burden currently being recorded.^{4,5} All these negatively impact on accurate diagnosis as well as delays when the need for referrals arises. The reduced cancer incidence and mortality recorded in the developed countries is said to be due but not

limited to cancer awareness, recognition of its symptoms and risk factors among the general populace,^{6,7} especially in those countries where intensive screening and aggressive preventive methods have been adopted.⁸ The objective of this study was to evaluate cervical cancer awareness, knowledge and risk factors among health sciences students of Olabisi Onabanjo University (OOU), Ogun State, Nigeria. The information gathered could be added to the data base for the control of cervical cancer.

Materials and Methods

We carried out a cross-sectional survey between July-October, 2015 among 4th-5th year students of Faculty of Pharmacy and Obafemi Awolowo College of health sciences, OOU, Ogun State, Nigeriato assess cervical cancer awareness, knowledge and risk factors. The two faculties as well as a teaching hospital (Olabisi Onabanjo University Teaching Hospital[OOUTH]) are located at the Sagamu campus, Ogun State, Nigeria. Sagamu town, a local government headquarters has a population of about 3,751,140 inhabitants as projected from 2016 census figure. We enrolled those who gave their consent to participate in the study by signing the informed consent form after the purpose of the study was explained to them. We distributed among the students 260 copies of self-administered questionnaire comprising four sections namely: socio-demographic characteristics, CC awareness, knowledge of CC testand knowledge of CC risk factors. The questionnaire was previously read and corrected by two expert Gynaecologists in the department of Obstetrics and Gynaecology, OOUTH for consistency after which it was pretested among non-health care students to ensure its clarity before administration.

Data analysis

Responses to the questionnaire and other data collected were checked for accuracy before being coded and entered into Microsoft Excel for sorting. Statistical Package for Social Sciences (SPSS) software, version 16, (Chicago, Illinois) was used for further analysis. Data were analyzed using descriptive and comparative analyses. Chi-square and Fisher's exact tests were used for the comparison of proportions. P-value of less than 0.05 was considered statistically significant association among different variables.

Results

Out of the 260 copies administered questionnaire, 250 (96.2% response rate) were correctly filled and used for the analysis. Males were 127 (50.8%). Students within 21-26 years of age were in the majority 182 (72.8%), Pharmacy students were 170 (68.0%) and singles 229 (91.6%) (Table 1).

Table 1: Socio-Demographic characteristics of respondents (N=250)

Variables	Frequency	Percentage (%)	P- Value
Gender			
Male	127	50.8	0.877
Female	123	49.2	
Age			
14-20	34	13.6	
21-26	182	72.8	< 0.000*
27-30	16	6.4	
>30	18	7.2	
Course of study			
Medicine	80	32.0	< 0.000*
Pharmacy	170	68.0	
Marital status			
Single	229	91.6	< 0.000*
Married	21	8.4	

***= Statistically significant**

We featured five questions to assess the awareness level of the respondents. The respondents were asked to choose between "Yes and No" options in response to the questions. Those who have heard of CC were 226 (90.4%), it affects any part other than the cervix 133 (53.2%), affects mainly female gender 217 (86.8%), adult population most susceptible 218 (87.2%), those who knew the stages of CC 81 (32.4%). We included a question on their sources of information regarding CC, where 109 (43.6) chose electronic media (television, radio, internet) but this question was not included in any of the tables because it was not a question with "Yes or No" option as others displayed (Table 2).

Table 2: Awareness of CC among respondents (N=250)

Those who gave right answers Variables	Frequency (%)	P-value
Have you heard of CC?	226 (90.4)	< 0.000*
Does it affect any part other than the cervix?	133 (53.2)	0.439
What gender does it affect?	217 (86.8)	< 0.000*
What population is susceptible?	218 (87.2)	< 0.000*
How many stages of CC do you know?	81 (32.4)	< 0.000*

***= Statistically significant**

In the section that assessed knowledge of (A) Pap test and (B) CC risk factors, the respondents were asked to indicate their right option from “Yes and No” in response to the presented questions. Below average number 96 (38.4%) of the respondents had heard of Pap smear test, while 39(15.6%) indicated that healthy adult women should have Pap test at three yearly intervals. Those who knew that Pap test is for detection of early signs of CC were 61 (24.4%), while 234 (93.6%) agreed that Pap test is necessary even when one does not have any family history of cancer. As per what could increase the chances of having CC, the following were their responses: infection with HPV 222 (88.8%), weakened immune system 223 (89.2%), infection with Chlamydia 218 (87.2%), having many sexual partners 211 (84.4%) and having many children 114 (45.6%) (Table 3).

Table 3: Knowledge of Pap test and CC risk factors (N=250)

Those who gave right answers		
A. Knowledge of Pap test	Frequency	P-Value
Have heard of Pap smear test?	96 (38.4)	0.003*
Healthy adult women should have Pap test every three years?	39 (15.6)	< 0.000*
Pap test is important for women at my age	10 (4.0)	< 0.000*
The purpose of Pap test is to detect early signs of CC	61 (24.4)	< 0.000*
Only women who have had many sexual partners need Pap test	58 (23.2)	< 0.000*
I have not had problems, but still need a Pap test	58 (23.2)	< 0.000*
Pap test is necessary even if there is no family history of cancer	234 (93.6)	< 0.000*

B. Knowledge of CC risk factors.	Frequency	P-Value
The following can increase the chances of getting CC:		
Infection with HPV	222 (88.8)	< 0.000*
Being a smoker	148 (59.2)	0.020*
Having a weakened immune system	223 (89.2)	< 0.000*
Having a sexual partner with many previous partners	210 (84.0)	< 0.000*
Long-term use of contraceptive pill	186 (74.4)	< 0.000*
Infection with Chlamydia (a sexually transmitted infection)	218 (87.2)	< 0.000*
Starting to have sex at a young age (before age 17)	218 (87.2)	< 0.000*
Having many sexual partners	211 (84.4)	< 0.000*
Having many children	114 (45.6)	0.278

*= Statistically significant

Discussion

We assessed CC awareness, knowledge of Pap test and risk factors among health care students who were considered health care professionals in the making. Our results showed no significant

difference in gender but there was in age, as 21-26 years was the major group in our study population. This is similar to that found in earlier studies^{8,9} but lower than that in another.¹⁰ Majority of our respondents had heard of CC which could be considered encouraging although slightly lower than an earlier obtained result in Nigeria¹¹ and Malaysia.⁸ This same result could also be considered low when compared to that found among low socio-economic women living in an informal settlement in Uganda, where their tertiary educational level respondents constituted just 5.1%, and they used the same mode of hearing (the electronic media).¹² This is in the light of considering the fact that these students were about rounding up their studies. Previous works^{13,14} found low CC knowledge of health professionals in sub-Saharan Africa led to wrong diagnosis and delayed treatment of cancer patients in the region. Majority of our respondents did not know the number of CC stages. The reason for this could be their sources of information were not detailed enough to cover vital areas in this field. This calls for all encompassing knowledge and enriched curriculum for all health care undergraduates which could aid in preparing them for effective health care delivery.

The number of respondents that had heard of Pap smear test in this study was minimal. Their lack of knowledge with regards to the fact that early detection and prevention of CC could be achieved through Pap smear test impacted negatively in two other areas of their knowledge namely: area regarding healthy women needing Pap test every 3 years, as well as the one indicating that Pap test was not meant for their age. This poor test response compares with that of a previous work,¹⁵ which found only 24.4% of the respondents correctly identified Pap test as being used for CC detection. These students could be said to be deficient in knowledge regarding cancer test especially when compared with previous studies.¹¹⁻¹² According to World Health Organization (WHO),¹⁶ Pap smear test is the most effective and reliable screening tool that can be used in the early detection and prevention of CC. Earlier researches^{11,17} also identified lack of interest in Pap smear test utilization as also seen in this study with the common assumption that they cannot be at risk at that age. Our findings corroborate previous studies^{13,14} which also found that late treatment and advanced stages of CC in sub

Saharan Africa were due to wrong diagnosis by healthcare professionals and the self-perceived low risk by women. Prompt screening and timely detection of CC could prevent the adverse effects of the disease.

Previous works^{2,3} pinpointed HPV infection to be the main cause of the killer CC disease. Having knowledge according to Bosch, *et al*¹⁸ of the relationship between HPV and CC is crucial in winning this war. This of course has helped in the fight against CC in the developed world but much is yet to be done to stem the tide in the developing parts of the world especially in sub-Saharan Africa region. It is therefore imperative that our health care students be armed with adequate knowledge in all areas of training for effective disease control and treatment management.

Knowledge of risk factors in this study was higher than 74% in 7 of the 9 featured risk factor related questions and specifically higher than 80% as per sexual behavioural associated questions. On the overall, knowledge of risk factors was appreciably higher than that found in awareness and Pap test sections.

Conclusion

Cervical cancer could be prevented if the concept of early screening is adopted and risk factors highly minimized in our society through the efforts of the government, health care professionals and women themselves. Our health care students should therefore be adequately prepared for both disease prevention and treatment practices. A low knowledge of Pap test found in this study could be bridged through educational interventions as well as boost CC knowledge across board among these students.

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