

KNOWLEDGE, ATTITUDE AND PRACTICE OF SCREENING FOR CERVICAL CANCER AMONG FEMALE STUDENTS OF A TERTIARY INSTITUTION IN SOUTH EASTERN NIGERIA.

*C.N. Akujobi, **J.I. Ikechebelu, I. Onunkwo, ****I.V. Onyiaorah

Departments of * Medical Microbiology, **Obstetrics & Gynaecology, and, ****Histopathology. Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State.

ABSTRACT

Background: Cervical cancer is the second commonest cancer of females worldwide and the commonest cancer of the female genital tract in our environment. It can be prevented through early detection by cervical screening (Pap smear).

Objective: The objective of this study is to determine the knowledge, attitude and practice of cervical cancer screening among female undergraduates.

Method: A pre tested questionnaire was administered to third and fourth year female students of the Faculty of Natural Sciences, Nnamdi Azikiwe University Awka, Nigeria.

Result: Out of the 220 students involved in the study, 134 (60.9) had knowledge of cervical cancer and 118 (53.6%) were sexually active with the average age at sexual debut being 21.2 years. The mean age of the students was 23.8 years and the age range was 17 to 39 years with 175 (80%) in the age range of 20-29 years. About 2/3 of the students did not know about Pap smear and worse still, none of them had undergone a Pap screening test before. This low participation in screening for cervical cancer was attributed to several reasons including ignorance of the existence of such a test, lack of awareness of centers where such services are obtainable, ignorance of the importance of screening and the risk factors to the development of cervical cancer.

Conclusion: There is good level of awareness of cervical cancer among the female undergraduates but poor knowledge and participation in cervical cancer screening. The development of a comprehensive cervical cancer screening strategy is being recommended to improve participation with a view to prevent cervical cancer by early detection and treatment of the pre-malignant stages.

Key words: Cervical cancer, screening, female undergraduates.

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INTRODUCTION

Cancer is the common term for all malignant tumors¹. The origin of the term is somewhat uncertain; it is probably derived from the Latin word for crab cancer-presumably because a cancer adheres to any part that it seizes upon in an obstinate manner like the crab¹. The term tumor is equated with neoplasm which means new growth. A neoplasm is an abnormal mass of tissue, the growth of which exceeds and is uncoordinated with that of the normal tissues and persists in the same excessive manner after cessation of the stimuli which evoked the change².

Cancer of the cervix is a malignant neoplasm of the uterine cervix in females. It is the second most common cancer of females' worldwide³ and the most common cancer of the female genital tract in our environment⁴. It is the only cancer that can theoretically be prevented. This is because cervical cancer occurs almost exclusively among women who are, or have been sexually active. There is increasing evidence to show that infection by certain strains of the sexually transmitted human papilloma virus (HPV, particularly HPV 16 and 18) is a factor⁵⁻⁸.

The risk of infection by the virus increases with increase in the number of sexual partners and early age of onset of sexual intercourse. Smoking and immune suppression are also factors which act as co-agents after initial problems that may stem from HPV infection.

The incidence of cervical cancer is higher in developing countries than in developed ones³. In underdeveloped countries, most women with cancer of the cervix usually present late to the hospital unlike in the developed countries where most of the women present early and cure can be realistically expected³. This is partly due to education and empowerment of women so that in developed countries, they present early once there are symptoms or as part of screening programmes for cervical cancer.

Cervical cytological screening test is designed to detect over 90 percent of cytological abnormalities of the cervix and fulfills many of the criteria of a successful screening procedure. Regular cervical screening will decrease the incidence of cancer of the cervix in our environment as has been demonstrated in most developed countries³. The Papanicolaou test (Pap smear) is an exfoliative cervical cytology developed by Papanicolaou to collect the cells that had been shed from the skin of the cervix, spread

Correspondence: Dr CNAkujobi
E-mail: adakujobi@yahoo.com

them on a glass slide and stain them using a specially developed technique⁶. Originally, this was done by washing the cells from the vagina and then collecting them from the posterior fornix. Presently, it involves scraping the cervix to collect cells and cervical mucus directly; this is a more efficient technique⁵. Many studies have been carried out worldwide on this matter⁹⁻¹⁴ however, little is available in the literature concerning such works in our environment¹⁵, hence the decision to do the study in Nnamdi Azikiwe University Awka.

SUBJECTS AND METHODS

Study Design: This survey was conducted using a pre-tested questionnaire. The questionnaire was close ended. The target population was female students of Nnamdi Azikiwe University Awka. Simple random sampling was used to select the faculty as well as the students to be studied. The target population was chosen because of their vulnerability to the risk factors to cancer of the cervix

Ethical Issues: The respondents were informed about the research and its objectives. They were assured that confidentiality will be maintained during and after the study and information given will be used only for research purposes. There was no extra cost to the participants. Participation was voluntary and participants had the option of withdrawing at any point.

Study Population: Third year and fourth year female students of the Faculty of Natural Sciences were chosen for the study because they are more likely to understand the subject matter and therefore, more likely to provide appropriate answers.

Sample Size: Using the worldwide prevalence of cancer of the cervix as 7.79%, the minimum sample size was calculated using the formula¹⁵:

$$n = \frac{z^2 \times p(1-p)}{d^2} \quad n = \frac{1.96^2 \times 0.0779(1-0.0779)}{0.05^2} \quad n = 110.4$$

Where n = minimum sample size
z = standard normal deviant at 95% confidence level i.e. 1.96.
p = prevalence i.e. 7.79%
d = sampling margin of error of 5% (0.05)

The calculated sample size is 110, however it was doubled to 220 in order to have a more statistical power considering the nature of the study.

RESULTS

Out of the 220 students recruited for the study, 175 (80%) were in the age range of 20-29 years. The mean age of the students was 23.8 years and the age range, 17 to 39 years as shown in table 1.

The age of onset of sexual intercourse among the 118 (53.6%) respondents who are sexually active is as follows: 40 (33.9%) became sexually active between the ages of 15-20 years, 76 (64.4%) became sexually active between the ages of 21-25 years while 2 (1.7%) became sexually active between the ages of 26-30 years. The average age at sexual debut is therefore 21.2 years. Only 74 (33.6%) of the respondents admitted using any form of contraceptive.

One hundred and thirty four respondents (60.9%) had knowledge of cervical cancer. Table 2 shows their first source of information about cervical cancer. The health care workers (n = 48; 35.8%) were the commonest source of information for the students followed by the print media (n = 38; 28.4%) while the least source is radio (n = 2; 1.5%).

None the respondents had undergone a Pap screening test before. The reasons for this is seen in Table 3, with the commonest reason being ignorance (n = 132, 60%) and the least is fear of pain or discomfort.

Table 4 illustrates the respondents' knowledge of risk factors to the development of cancer of the cervix. Early commencement of sexual intercourse had the highest frequency (n = 88, 40%) as a risk factor while the least was abstinence (n = 6, 2.7%). Having only one faithful sexual partner was not considered a risk factor by all the respondents.

Table 1: Age Distribution of the Respondents.

Age (Yrs)	Frequency	Percentage (%)
< 20	36	16.4
20 – 29	176	80
30 – 39	8	3.6
40 – 49	0	0
Total	220	100.0

Table 2: First Sources of Information on Cervical Cancer for Those Who Had Knowledge of Cervical Cancer

Sources of information	Frequency	Percentage (%)
Friends	12	9.0
Mother	4	3.0
Magazines/books/ News papers	38	28.4
Health workers	48	35.8
Television	4	3.0
Radio	2	1.5
No response	26	19.4
Total	134	100.0

Table 3: Reasons for Not Having Gone For Pap Smear.

Reason	Frequency	Percentage (%)
Concern about embarrassment of cancer being discovered	6	2.7
Have not heard of it	132	60
Do not know where to go for the test	34	15.5
Think it is not necessary	10	4.6
Fear pain or discomfort	2	0.9
Have no time	6	2.7
No reason	30	13.6
Total	220	100.0

Table 4: Knowledge of Risk Factors to the Development of Cancer of the Cervix

Risk factors	Frequency	Percentage (%)
Early age of onset of sexual activity.	88	40
Having more than one sexual partner	58	26.4
Having a sexual partner who has or has had other sexual partners	34	15.5
Unprotected sex/not using condoms	34	15.5
Not going for pap smear testing	26	11.8
Practice of abstinence	6	2.7
Having only one faithful sexual partner	0	0

DISCUSSION

Cancer of the cervix is the second commonest cancer of the females worldwide³. Women of the reproductive age group are most exposed to the risk factors that predispose to development of the disease. Many of the respondents (60.9%) had knowledge of cervical cancer. This level of awareness may be due to the educational status of the respondents and the influence of the print media and health sector in the creation of awareness of the disease among the populace. However, there is obviously very little knowledge of cervical cancer screening among respondents which explains the very low level of practice of the test. Low levels of participation in cervical cancer screening programmes have been reported by Coory et al¹⁷ in Australia where 58.6% had never undergone a Pap smear; by Maaita and Barakat¹⁸ in Jordan where 75% of the participants had never had a Pap smear and by Udigwe¹⁴ in Anambra State, Nigeria, among nurses where only 5.7% of the participants were reported to have undergone a pap smear. The reasons for the very low level of attendance to screening in this study were due to lack of knowledge about Pap smear, lack of knowledge of where to obtain screening services, the belief that screening was unnecessary and concern about embarrassment of cancer being discovered. However, these findings are not consistent with those of Hislop et al¹⁹ among Chinese Canadian women and Twinn et al²⁰ among

Hong Kong Chinese women, where attendance to screening was 76% and 59% respectively.

In this study, the educational attainment of the women, their spouses and marriage did not have a positive impact as regards undergoing a Pap smear, contrary to reports from Australia¹¹, America¹² and Mexico¹³ where these factors were shown to have increased the likelihood of undergoing a Pap smear. Nulliparity is known to influence participation in screening as was the findings in Mexico⁹, America¹² and Dar es Salaam¹⁴. In the study however, conclusive deductions could not be made because even the respondents who were parous never had Pap smears. Knowledge of risk factors to the development of cervical cancer was low as factors such as early age of sexual activity, having multiple sexual partners, unprotected sexual intercourse, having a sexual partner with multiple sexual partners and not having a Pap smear done was very poor. This may be a strong reason for the poor attendance to Pap testing among the respondents. This is in keeping with reports of Maaita and Barakat¹⁸ in Jordan where 77% of the respondents were not aware of the causes of cervical cancer. It is also consistent with that of Twinn et al²⁰, in which women's knowledge of risk factors to cervical cancer was a significant factor in participation in screening programme in Hong Kong. In this study, 53.6% of the respondents were sexually active. The use of any form of contraceptive method was very low (33.6%). These findings lend great

weight to the seriousness of the problem of cervical cancer in the underdeveloped countries which have a higher incidence of cervical cancer when compared to the developed countries³. These young girls are very vulnerable to Human papilloma virus infection and those who develop cervical intraepithelial neoplasia (CIN) and subsequently cervical cancer are unlikely to be detected early³.

We concluded that there is a high level of awareness of cervical cancer among female undergraduates of Nnamdi Azikiwe University Awka, but poor knowledge and participation in cervical cancer screening among the students. Participation in screening for cervical cancer has been low due to lack of awareness of the availability of such services, lack of awareness of centers where such services are obtainable, ignorance of the importance of screening and the risk factors to the development of cervical cancer. The development of a comprehensive cervical cancer screening strategy is being recommended to improve participation in cervical cancer screening.

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