

Female Adolescents' Knowledge on Cervical Cancer Screening and Immunization

Connaissance des adolescentes sur le dépistage du cancer du col utérin et la vaccination

Ruth Ochanya Adio-Moses*

Correspondance

Ruth Ochanya Adio-Moses
Department of Human Kinetics and Health Education,
University of Ibadan, Nigeria
Email: ochanyaadiomoses@gmail.com

Résumé

Contexte & objectif : Quoique pouvant être contractées à n'importe quel âge, les nouvelles infections au papilloma virus humain (VPH) sont cependant prépondérantes chez les femmes de moins de 25 ans. La présente étude évalue le niveau de connaissances des adolescents en milieu scolaire sur la prévention et le dépistage du cancer du col utérin.

Méthodes : Etude transversale basée sur l'interview de 240 adolescentes (d'âge entre 15 et 20 ans) recrutées de manière aléatoire, selon un échantillonnage à plusieurs degrés, dans quatre écoles péri-urbaines d'Ibadan au Nigeria. Les questions de l'enquête concernaient la terminologie et les connaissances générales sur le dépistage du cancer du col utérin et de l'immunisation.

Résultats : Le taux global de réponse a été de 83,3%. Près d'1 répondant sur 2 (54,4%) a affirmé ne pas savoir que le dépistage de l'infection à VPH est important et disponible pour la femme de tout âge. Quasi tous les participants (82,5%) pensaient que le vaccin anti VPH ne peut être utilisé chez la jeune fille avant l'âge de 15 ans.

Conclusion : Une adolescente sur deux dans cette enquête a un niveau de connaissances faible sur le dépistage du cancer du col et sur l'immunisation. Cette situation justifie la promotion des programmes d'éducation sur le dépistage et la prévention du cancer du col utérin en milieu scolaire.

Mots-clés : Adolescentes, connaissances, Cancer du col de l'utérus, dépistage, Immunisation

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* Department of Human Kinetics and Health Education,
University of Ibadan, Nigeria
Email: ochanyaadiomoses@gmail.com

Summary

Context and purpose: Although the new infections of human papilloma virus (HPV) can be acquired at any age, women's less than 25 years predominated. The present study investigated the knowledge of school adolescents on prevention and screening of cervical cancer.

Method: In a cross-sectional study, 240 female adolescents (aged 15-20 years) randomly enrolled using a multistage sampling technique in four peri-urban schools, were interviewed in Ibanda, Nigeria. Survey questions addressed terminology and general knowledge of cervical cancer screening and immunization. **Results:** The overall response rate was 83.3%. 54.4% of the respondents did not know that screening for HPV is important and available for all females. 82.5% indicated that the HVP vaccines are not for females of age less than 15 years. **Conclusion:** More than half female adolescents in this survey had poor knowledge of cervical cancer screening and immunization and this has serious implications for school health and safety education as well as cervical cancer prevention programmes.

Keywords: Female, Adolescents, Knowledge, Cervical Cancer, Screening, Immunization

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Introduction

The causes of serious ill-health in the world are changing as communicable diseases are now reducing and giving way to non-communicable diseases such as cardiovascular diseases and cancers. Cancer is a complex genetic disease and cancer causing agents (carcinogens) can be present in the environment (water, air and sunlight) including food and chemicals that people are exposed to. Cancer has been defined as a potentially fatal disease caused mainly by environmental factors that mutate genes encoding critical cell-regulatory proteins (1). The resultant aberrant cell behavior leads to expansive masses of abnormal cells that destroy surrounding normal tissue and can spread to vital organs resulting in disseminated disease, commonly a harbinger of imminent death.

Cancer known medically as a malignant neoplasm is a broad group of various diseases all involving unregulated cell growth. In cancer, cells divide and grow uncontrollably, forming malignant tumors, and invade nearby parts of the body. Cancer may also spread to more distant parts of the body through the lymphatic system or blood stream. There are over 200 different known cancers that afflict humans (2). Many factors are known to increase the risk of cancer, including tobacco use, certain infections, radiation, lack of physical activity, obesity, and environmental pollutants. Cancer can be detected in a number of ways, including the presence of certain signs and symptoms, screening test or medical imaging. The chances of surviving the disease vary greatly by the type and location of the cancer (3).

Cervical cancer is one of the common cancers found in women. It is described as the uncontrolled growth and spread of abnormal cells in a woman's cervix (the narrow opening of the womb into the vagina) and caused by the Human Papilloma Virus (HPV) which is transmitted through sexual intercourse (4). It is the second most frequent cancer among women in Nigeria following breast cancer, with about 9,659 women dying of cervical cancer annually and about 24.8 percent of women in the general population harbour the HPV. Cervical cancer, unlike other gynecological cancers is a preventable disease because it has a pre invasive phase that can be detected and treated if women are screened for it (5). New HPV infections can be acquired at any age and prevalence of infection is greatest in women less than 25 years of age but its morbidity and mortality in Nigeria could be greatly reduced using preventive health methods and promoting safe sexual practice. Recent trend such as screening and immunization especially before sexual debut and the use of other scientific approach in cervical cancer prevention, indicates that scientific methods must be applied with greater vigor and imagination to the behavioral aspect of our life and culture.

Studies conducted across Nigeria shows that knowledge about sexually transmitted infections and cervical cancer is very poor among adolescents. There is also poor Knowledge of pap smear tests among women (6, 7). A vivid picture of the problem of cervical cancer in Nigeria revealed that less than 2% of the female population have ever been screened, less than 10% of female health workers and less than 20% of female doctors have ever been screened. It has also been reported that less than 1% of the Nigerian female population are aware of the existence of this silent killer (8). Consequently, cervical cancer kills a woman every hour in the country. Although 100 per cent preventable, women aged 15 years and older are at risk of developing cervical cancer. Worse still, about 23.7 per cent of women in the general population are estimated to harbour cervical HPV infection at a given time (8).

Response to screening programmes are however low due to ignorance about cervical cancer, lack of awareness that some screening methods were available for some cancers, cultural reliance on traditional healers, prejudice about orthodox health services and reluctance of women to have a stranger examining their genitalia because of cultural and religious inhibitions. Cervical cancer is a critical public health problem, a comprehensive strategy is needed to address universal access to Prevention, Screening and Treatment services. Cancer Screening and HPV Vaccination are cost effective strategies. The logistics and economics of introducing HPV vaccines into Africa are formidable; the benefits to women (and men) will be significant (9).

As part of a preventive strategy, it is important to vaccinate girls between the ages of 9 and 15 with the Human Papilloma Virus (HPV) Vaccines as part of a national strategy to reduce the mortality associated with cervical cancer. The human papilloma virus (HPV) vaccine prevents infection with certain species of human papillomavirus associated with the development of cervical cancer, genital warts, and some less common cancers. Two HPV vaccines are

currently on the market in Nigeria; Gardasil and Cervaris. Both vaccines protect against the two HPV types (HPV-16 and HPV-18) that cause 70% of cervical cancers, 80% of anal cancers, 60% of vaginal cancers, and 40% of vulvar cancers. Both vaccines have been shown to prevent potentially precancerous lesions of the cervix (10).

It has been suggested that women should get regular Pap smear screening even after immunization since the vaccine only covers some high-risk types of HPV (11, 12). Experience from developed countries has shown that well organized health education programmes will bridge the gap in knowledge of preventive strategies (especially screening and immunization programs for adolescent girls and women “at risk” group) and could significantly reduce the number of new cases of cervical cancer and the mortality rate associated with it. Indeed the adolescent population in Nigeria is increasing steadily with its associated problem. This period is linked to experimentation especially in with regards to sexual activities. Preventing cervical cancer in this age cohort is of importance to public health. This study investigated the knowledge of cervical cancer screening and immunization among females in secondary schools in Ibadan metropolis.

Methods

In a cross-sectional survey, 240 female adolescents were drawn using stratified random sampling from four semi-urban schools. We selected 4 public secondary schools out of six in Ibadan North West Local Government Area of Oyo State Nigeria. The purposive and simple

random sampling was used to draw 60 female adolescents from each school as respondents for the study. The following research questions were answered:

- Do in-school female adolescents in Ibadan North-West LGA have knowledge of cervical cancer screening?
- Do in-school female adolescents in Ibadan North-West LGA have knowledge of cervical cancer immunization?

In order to answer the two research questions for the study, questionnaire was used for data collection. A 10-item 4-point likert type questionnaire was self-developed. The sub-scale of the questionnaire consists of items on knowledge of cervical cancer screening and knowledge of cervical cancer immunization. The instrument was validated by experts in psychometrics and the reliability coefficient of 0.80 on the Cronbach alpha scale was obtained. An overall response rate of 83.3 percent was obtained across the 4 strata, with 200 questionnaire returned. All of participants gave written inform consent. Our Institutional Review Board approved the protocol.

Statistical methods

The completed questionnaire was analyzed using descriptive statistics of frequency counts and percentages.

Disclosure

Author declared no competing interests

Results

Table 1 shows knowledge of cervical cancer screening of all participants. 54.4% of the respondents did not know that screening for HPV is important and available for all females.

Table 1: Knowledge of Cervical Cancer Screening

Statements	Strongly agree n (%)	Agree n (%)	Disagree n (%)	Strongly disagree n (%)
Screening for HPV is important and available for all females	46 (23.0)	45 (22.5)	60 (30.0)	49 (24.5)
A pap tests is a method of screening for cervical cancer	40 (20.0)	49 (24.5)	57 (28.5)	54 (27.0)
Age 21 is the ideal age for the first pap test	45 (22.5)	45 (22.5)	59 (29.5)	51 (25.5)
Screening can identify abnormal and pre-cancerous cells on the cervix	49 (24.5)	49 (24.5)	67 (33.5)	35 (17.5)
Regular screening can prevent cervical cancer	50 (25.0)	54 (27.0)	56 (28.0)	40 (20.0)

Knowledge of cervical cancer immunization is indicated in table 2. Also, only one of four participants did not think (strongly disagree) that the HPV vaccine cannot be taken after after sexual debute. 82.5% of participants indicated that the HPV vaccines are not for females of ages less than 15 years.

Table 2: Knowledge of Cervical Cancer Immunization

Statements	Strongly agree n (%)	Agree n (%)	Disagree n (%)	Strongly disagree n (%)
There is no immunization against cervical cancer	56 (28.0)	50 (25.0)	80 (40.0)	14 (7.0)
I have never heard of the existence of the HPV vaccine.	60 (30.0)	80 (40.0)	30 (15.0)	30 (15.0)
There are no preventive measures for cervical cancer	67 (33.5)	54 (27.0)	50 (25.0)	29 (14.5)
Cervical cancer vaccines are not for girls of ages less than 15	80 (40.0)	85 (42.5)	35 (17.5)	0
The HPV vaccine cannot be taken after sexual debute	60 (30.0)	45 (22.5)	45 (22.5)	50 (25.0)

Discussion

This study was conducted among in-school adolescents in order to assess their knowledge regarding screening and immunization as methods of preventing cervical cancer. The findings of this study revealed that knowledge of cervical cancer screening was low, 54.4% of the respondents do not know that screening for HPV is important and available for all females. A study by Ajenifuja and Adepiti (5) reported that awareness of Pap smear was low as only 85

(19.5%) of their respondents have ever heard of Pap smear in the previous 5 years. Knowledge of cervical cancer immunization among female adolescents in this study was also very low. The table showed that about 82.5% indicated that the HPV vaccines are not for females of ages less than 15 years. This result is in line with an earlier finding by Basu and Chowdhury (12) who reported low knowledge of HPV vaccines among their respondents.

Indeed, knowledge of screening and immunization are key factors in preventing cervical

cancers. In bridging science and humanity Health education should be used as an important tool in increasing awareness of early detection and the benefits of the HPV vaccine in preventing cervical cancer through age-appropriate and conscious programmes. Health education will interpret scientific processes and break down complex information to simple. Health Education is cost effective and should not in any way be a barrier limiting cervical cancer educational intervention. Appropriate means should be employed to inform adolescent females concerning their degree of risk of developing carcinoma of the cervix and to persuade all women at risk to participate in cervical screening programmes. It is also imperative for the Nigerian government to support health information programmes to educate the girl child, parents and health providers about the benefits of the HPV vaccine in preventing cervical cancer. School teachers should also be educated to provide information to their female students about the benefits of the HPV vaccine.

Conclusion: This present study showed that female adolescents had poor knowledge of cervical cancer screening and immunization.

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