Journal of Capital Development in Behavioural Sciences Vol. 13 Issue 1 (March, 2025)
Faculty of Arts & Education, Lead City University, Ibadan, Nigeria
***ISSN Online:** 2449-0679 **ISSN Print:** 2354-3981*

Knowledge and Practice of Pap-smear among Female Students of Lead City University, Ibadan

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Abstract

Globally, cervical cancer is a public health concern which responsible for high mortality among women, it can be detected early with Pap smear screening for sexually and non-sexually active women. Many women do not undergo this due to lack of knowledge. This study assessed the Knowledge and Practice of Pap smear among female students in Lead City University, Ibadan.

A descriptive cross-sectional research design was adopted and 119 respondents of Lead City University students were used for the study. A self-developed, validated and structured questionnaire was used. The data collected was analyzed using descriptive and inferential statistics and $p<0.05$ level of significance.

Findings showed that 43.6% were between the ages of 17-20 and 56.4% were between the ages of 21-25. Majority, 81.8% agreed to have heard about a Pap smear test before. 53.6% agreed that Pap smear can prevent cervical cancer. Majority about 84.5% have never had the test before. There is a significant relationship between educational status and knowledge of Pap smear among female students (200-500 levels) in Lead City University ($p<0.05$).

In conclusion, the knowledge was high and the practice of Pap smear was significantly low. It was recommended that health professionals should bring about strategies that would increase the practice of Pap smear testing.

Keywords: Cervical cancer, Female students, Pap smear, Screening

Word Count: 200 words

Introduction

A pap smear is an effective tool used in screening procedure to detect precancerous and cancerous changes in the cervix caused by Human Papilloma Virus (HPV) at an early stage, and despite its limitations, the effect of Pap smear testing on lowering cervical cancer mortality is a significant advancement in gynecological health. It tests for the presence of precancerous or cancerous cells on the cervix which is the opening of the uterus (Healthline, 2021). The use of the Papanicolaou (Pap) smear as a screening tool for cervical cancer caused by the papillomavirus is largely responsible for the significant decline in the incidence of cervical cancer in the developed world. HPV is transmitted sexually and it is the leading cause of cervical cancer. The success of Pap smear testing in the developed world is largely due to extensive screening programmes and public awareness of the importance of the test in preventing cervical cancer (Khan, Zafar, Muneer & Siddiqui, 2018).

Cancer is a large group of diseases that occur when abnormal cells divide rapidly and can spread to other tissue and organs. These

rapidly growing cells may cause tumors and could disrupt the body's regular function. It is the leading cause of death in the world (Hobbs and Selchick, 2022). The biggest cause of cancer-related mortality among women in underdeveloped countries is Cervical Cancer. Cervical cancer is a tumor at the cervix the lower part of the uterus and it occurs when cells change in the women's cervix which connects the uterus and vagina. It affects deeper tissues of the cervix and spread to other parts of the body often the lungs, liver, bladder, vagina and rectum (National Cancer Institute, 2020).

In order to provide more rapid, affordable, and sensitive cervical cancer screening and treatment, new technologies have been developed (Bedell, Goldstein, Goldstein & Goldstein, 2020). Adenocarcinoma and squamous cell carcinoma are the two histological types of the malignant tumor that develops in the cervix and are both considered to be forms of cervical cancer (Hull et al, 2020). Cervical cancer is the fourth most frequently diagnosed cancer and the fourth main cause of cancer death in women globally in 2018, with an expected 570,000 cases and 311,000 deaths. However, 85% of cervical cancer fatalities worldwide may occur in developing or undeveloped nations, and the mortality rate is 18 times greater in low- and middle-income nations compared to wealthy nations in same regions (Zhang, Xu, Zhang & Qiao, 2020). Every year, about 528,000 women worldwide are affected by cervical cancer, with developing nations accounting for 80% of these cases. Through coordinated cervical screening programmes developed countries have successfully lowered the incidence of cervical cancer by 70% (Shuaibu, Grema, & Michael, 2018).

The Human Papilloma Virus, which is transmitted through intercourse, is the most frequent cause of cervical cancer (Hull, Mbele, Makhafola, Hicks, Wang, Reis, Mehrotra, Mkhize-kwitshana, Kibiki, Bates & Dlamini, 2020). As long as it is identified early on and treated properly, cervical cancer is one of the most successfully treatable types of cancer when it is recognized. A coordinated approach to prevention,

screening, and therapy can help control cancers that are diagnosed in the late stages with the right treatment and palliative care. Within a generation, cervical cancer as a public health issue can be resolved (World Health Organization, 2022). The discovery that persistent Human Papilloma Virus (HPV) infection is the leading cause of cervical cancer has resulted in the development of prophylactic vaccines to prevent HPV infection as well as HPV assays that detect virus nuclei acids. WHO has launched a global initiative to increase preventive, screening, and treatment interventions in order to eliminate cervical cancer as a public health problem in the twenty-first century (Arbyn, Weiderpass, Bruni, Sanjose, Ferley, Saraiya & Bray, 2020).

In prevention of cervical cancer, there are two very effective cervical cancer prevention strategies: vaccination against the Human Papilloma Virus (HPV) and cervical screening with primary HPV testing followed by treatment of precancerous lesions. The World Health Organization called for action in 2018 to achieve global cervical cancer elimination. The practice of regular cervical cancer screening with Pap smear has significantly reduced both the incidence and burden of cervical cancer in the developed world. Unfortunately, cervical cancer remains the most common gynecological cancer and the second leading cause of female cancer mortality in Nigeria, with up to 80% of women diagnosed dying from the disease (Okunowo, Daramola, Soibi- Harry, Ezenwankwo, Kuku, Okunade & Anorlu, 2018). In Nigeria, up to 50.3 million women aged 15 years and above are at risk of getting cervical cancer with current 2017 estimates which shows that 14,089 women are diagnosed yearly and of which 8240 die (Ifediora and Azuike, 2018). Cancer of the cervix causes a huge problem in Nigeria and it accounts for 63% of genital cancer and 30-40% of uterine cancers among women aged 15 years and above (Amu, Ndugba & Olatona, 2019).

In Africa, awareness and comprehension of the disease are relatively low, and disease mortality remains extremely high (Tomen, Yohanna & Obilom, 2019). Early cervical cancer screening is an

important intervention in reducing maternal mortality. Women's cervical cancer screening practices can be improved with the help of health professionals. Their attitude and behavior towards such an issue may have an impact on the people with whom they are in contact, both positively and negatively (Awoyesuku, Altraide & Macpepple, 2019).
Lack of awareness, lack of knowledge, lack of adequate health care facilities, lack of symptoms, not feeling at risk and social stigma were identified as important factors affecting utilization of cervical cancer screening services (George, 2021). A pap smear, also called a pap test is a procedure to test for cervical cancer in women. A pap smear involves collecting cells from the cervix- the lower, narrow end of the vagina. Detecting cervical cancer early with a pap smear gives a greater chance at a cure.

This study was carried out to assess knowledge and practice of Pap smear with certain factors that influence it among females in Lead City University, Ibadan.

Statement of the Problem

Cervical cancer is a health concern among women worldwide, presently ranking as the second to fourth common cancer type among women in different parts of the world (Nwabichie, Manaf and Ismail, 2018). Cervical cancer is a prevailing cause of death in women but can be prevented through screening, early diagnosis and treatment; unfortunately, limited awareness, late diagnosis and a number of factors affecting the screening has brought about a high rise in the number of cases making it difficult to treat thereby resulting in high mortality amongst women and young adults. It is therefore necessary to know the knowledge and practice of Pap smear among female students of Lead City University, Ibadan to bring about prompt strategies to aid awareness for the benefit of all.

A study conducted by Ijezie and Johnson (2019) on knowledge of cervical cancer and the uptake of the Papanicolaou smear test among public secondary school teachers in Akwa Ibom State, Nigeria. It was a

cross-sectional descriptive study among 370 female teachers in Akwa Ibom State. Data was collected with a self-administered questionnaire and were analyzed. More than two-third (71.0%) of the respondents had low knowledge of cervical cancer risk factors whereas 168 (57.9%) respondents had low knowledge of the symptoms. Among the 226 (77.9%) respondents who knew that cervical cancer have preventive measures. About 42.2% of respondents were aware of the Pap smear test and only 8.4% had ever had a Pap smear test. In conclusion. The levels of knowledge of risk factors, symptoms and methods of prevention of cervical cancer were low in this study, making it necessary to conduct this study.

Objectives of the Study

The broad objective of this study is Knowledge and Practice of Pap Smear among Female Students of Lead City University, Ibadan.

Specific objectives were to:

1. assess the knowledge and practice of pap smear among female students of Lead city university, Ibadan.
2. determine the practice of pap smear pap smear among female students of Lead city university, Ibadan.

Research Questions

1. What is the knowledge of pap smear among female students of Lead city university, Ibadan.
2. What is the practice of pap smear pap smear among female students of Lead city university, Ibadan.

Methodology

This study adopted a quantitative descriptive cross-sectional research design which was used to determine the knowledge and practice of Pap smear among female students in Lead City University, Ibadan. The research was carried out in Lead City University, Ibadan which is a private university. The target population for this study was the female

students of Lead City University in Ibadan, Oyo State and the study population was 119 respondents. The inclusion criteria were the female undergraduates of Lead City University and the exclusion criteria were females who were not students of Lead City University. A probability simple random sampling technique was used to select the respondents. The instrument for this study was a validated structured self-developed questionnaire which was used to gather information about knowledge and practice of Pap smear among female students in Lead City University, Ibadan. The questionnaire was divided into three Sections A, B, C. Section A contained information on the demographic data of the respondents with (10) questions. Section B contained (14) items on the knowledge of the respondents on Pap smear and their awareness of cervical cancer. Section C contained (7) items on the practice of Pap smear among the respondents. The research instrument was validated for construct, content and face validity and correct version was administered to female students of Lead City University, Ibadan. All comments were used to modify the final draft of the instruments before administration. A field testing was carried out using test retest method to test the reliability in order to check how well the instrument was to be applied. Data management was done using SPSS version 23. Data was summarised, using descriptive statistics of frequency counts and percentages according to the research questions and objectives. Questionnaires were administered with the help of two (2) research assistants. Alpha level was set at $p<0.05$. The research committee of Lead City University (LCU- REC) was consulted for ethical approval.

Results and Discussion

Table 1: Responses on Socio-Demographic Characteristics of Respondents

Table 1: Respondents' Socio-Demographic Characteristics

Socio-demographic Data	Frequency	Percentage (%)
Age		
17-20	48	43.6
21-25	62	56.36
26-30	0	0
Total	**110**	**100**
Education Status		
200L	10	9.1
300L	15	13.6
400L	26	23.6
500L	59	53.6
Total	**110**	**100**
Religion		
Christianity	86	78.2
Islam	24	21.8
Total	**110**	**100**
Ethnicity		
Yoruba	78	70.9
Igbo	27	24.5
Others	5	4.5
Total	**110**	**100**
Marital Status		
Single	110	110

Married	0	0
Divorced	0	0
Widowed	0	0
Total	**110**	**100**
	Yes	**No**
Have you heard of Pap smear test before?	90 (81.8%)	20 (18.2%)
If yes, what's your main source of health information		
Health Personnel	72	65.5
Family/Friend	5	4.5
TV/Radios	0	0
Internet	28	25.5
Sub-Total	105	95.5
Missing	**5**	**4.5**
Total	**110**	**100**
	Yes	**No**
Have you undergone a Pap Smear test before?	10 (9.1%)	100 (90.9%)
Do you have a relative or family member who has undergone a Pap Smear test before?	33 (30.0)	77 (70.0%)
Have you received sensitization on Pap Smear test before? **Missing System = 6 (5.5%)**	37 (33.6%)	67 (60.9%)

Table 1 shows the social-demographic variables of respondents, age range 17-20 years (43.6%) were between, 56.4% were between 21-25 years. Majority, 53.6% were 500L 23.6% were 400L 13.6% were 300L and 9.1% were 200 level students. Mostly 78.2% were practicing Christianity, while 21.8% were practicing Islamic religion. Majority 70.9% were Yoruba, 24.5% were Igbo while 4.5% were from other ethnicity. All the respondents were single 100%. Mostly 81.8% agreed that they have heard about Pap smear test before. 68.6% said their main source of health information was from health personnel, while 25.5% also said internet was their main source of health information. 70% disagreed that none of their family or relative members had undergone a Pap smear test before. 60.9% disagreed that they have not received sensitization on Pap smear test before while 33.6% agreed to have received sensitization on Pap smear test before.

This research study focuses on Knowledge and Practices on Pap smear among female students of Lead City University, Ibadan. The socio-demographic findings showed that the age of the respondents. Majority 51.25 were between age ranged of 21-25 years, while 43.6% were between the ranges of 17 - 20 years. Based on educational status, majority 53.6% were 500 level student, 23.6% were 400 level student, 13.6 were 300 level student, while 9.1% were 200 level student. Majority 78.2% were practicing Christianity, while 21.8% practice Islamic religion. Majority 70.9% were Yoruba, while 24.5% were Igbo. All 100% were single. 81.8% agreed that they had heard of Pap smear test while 18.2% seems not to have heard of Pap smear test. 65.5% agreed that their main source of health information came from health personnel while 25.5% are from internet. 90.9% disagree that they have not undergone Pap smear test before. 70% also disagreed not to have any relative or family who has undergone a Pap smear test. 60.9% disagreed that they have not received sensitization on Pap smear test.

Table 2: Responses on Research Question Two

Table 2: Analysis on Knowledge of Pap Smear

S/N	ITEMS	YES F(%)	NO F(%)	I DON'T KNOW F(%)
1.	A Pap smear is also called a Pap test.	81 (73.6%)	11 (10%)	18 (16.4%)
2.	Pap smear test could be used for the detection of cervical cancer.	105 (95.5%)	0 (0%)	5 (4.5%)
3.	All women > 21 years should get the Pap smear test.	85 (77.3%)	0 (0%	25 (22.7%)
4.	The Pap smear test takes about 10 – 20 minutes .	61 (55.5%)	0 (0%)	49 (44.5%)
5.	The Pap smear test is done in:			
	Doctor's office	71 (61.6%)	11 (10%)	28 (28.4%)
	Operation theatre	34 (30.9%)	35(31.8%)	11 (10%)
	Reception	51 (46.4%)	6 (5.5%)	5 (4.5%)
	Nurses' Station	7 (6.4%)	35(31.8%)	5 (4.5%)
	Others	35 (31.8%)	0 (0%)	11 (10%)

6.	Human papillomavirus (HPV) testing is also a screening technique for cervical cancer.	100 (90.9%)	0 (0%)	10 (9.1%)
7.	Pap Smear test can also be used to find other health conditions.	66 (60%)	12 (10.9%)	32 (29.1%)
8.	Does Pap smear reveals cervical dysplasia?	46 (41.8%)	12 (10.9%)	52 (47.3%)
9.	Is Cervical cancer caused by Human Papilloma Virus?	73 (66.4%)	5 (4.5%)	32 (29.1%)
10.	Is smoking a risk factor for cervical cancer?	85 (77.3%)	10 (9.1%)	15 (13.6%)
11.	Early detection of cervical cancer helps in the treatment.	110 (100%)	0 (0%)	0 (0%)
12.	Early detection of cervical cancer using a Pap Smear test will give a greater chance at a cure.	105 (95.5%)	0 (0%)	5 (4.5%)
13.	Cervical cancer is preventable.	100 (90.9%)	0 (0%)	10 (9.1%)
14.	Do you know about human papilloma virus vaccine in the prevention of cervical cancer.	80 (72.7%)	10 (9.1%)	20 (18.2%)

Table 2 showed respondents' knowledge about Pap smear among female students of Lead City University. Majority 73.6% agreed that a Pap smear is also called a Pap test. Most 95.5% agreed that Pap smear test could be used for the detection of cervical cancer. 77.3% affirmed that all women > 21 year should get the Pap smear test. Above average 55.5% agreed that Pap smear test takes about 10-20 minutes. Majority 61.6%, 30.9%, 46.4%, agreed that the Pap smear test is done in operation theatre, reception and others while 31.8% disagreed that Pap smear test does not take place in Nurse's station. Most 90.9% agreed that human papillomavirus (HPV) testing is also a screening technique for cervical cancer. 60%, affirmed that Pap smear test can also be used to find other health conditions. 47.3% disagreed that Pap smear revealed cervical dysplasia. Majority 66.4%, 77.3%, 100% agreed that cervical cancer caused by human papilloma virus, smoking is also a risk factor for cervical cancer and early detection of cervical cancer helps in the treatment. Majority 95.5%, 90.9%, agreed that early detection of cervical cancer using a Pap smear test will give a greater chance at a cure, cervical cancer is preventable. Most 72.7% agreed that papilloma virus vaccine is used in the prevention of cervical cancer.

Table 2 shows the knowledge of Pap smear female students of Lead City University, badan. Majority 73.6% agreed that a Pap smear est is also called a Pap test. Most 95.5% agreed that Pap smear test could be used for the detection of cervical cancer. 77.3% agreed that all women > 21 years should get the Pap smear test and some 55.5% also said Pap smear test should take about 10 – 20 minutes. 61.6%, 46.4%, 31.8% agreed that Pap smear test is done in doctor's office, reception, while 31.8% disagreed that Pap smear test should not be done in operation theatre and nurses satiation. Majority 90.9% agreed that human papilloma virus (HPV) testing is also a screening technique for cervical cancer. 60% responded that Pap smear test can also be used to find other health condition and 41.8% also agreed that Pap smear reveals cervical dysplasia. Majority 66.4% agreed that cervical cancer is caused

by human papilloma virus. Most 77.3%, 100%, 95.5%, 90.9% agreed that smoking is a risk factor for cervical cancer, for early detection of cancer helps in the treatment and early detection of cervical cancer using a Pap smear test will give a greater chance at a cure while cervical cancer is preventable. Lastly, majority 72.7% affirm to know about human papilloma virus vaccine in the prevention of cervical cancer. This is at variance with the study of (Awoyesuku, 2019) which found that out of 265 respondents, 237(89.4%) were aware of pap smear, while 28(10.6%) had no knowledge, those who had knowledge only 40 (16.9%) had Pap smear test done at least once previously. There was a significant difference in the knowledge of Pap smear among those who were professionals and those who had tertiary education. The common sources of information about Pap smear were books (58.2%) and medical workers (50.6%) and the most common answer for not wanting to be screened was No interest (43.6%). In conclusion, although the knowledge of Pap smear is high, the uptake is low among hospital workers.

Table 3: Responses on Research Question Three

Table 3: Analysis on Practice of Pap Smear

S/N	**ITEMS**	**YES F(%)**	**NO F(%)**	**Others F(%)**
1.	Have you ever had a pap smear test done before	5 (4.5%)	93 (84.5%)	0 (0%)
	Missing system 12(10.9%)			
		Twice	**Once**	
2.	If yes, how many times have you had test	10 (9.1%)	0 (0%)	

	Missing system 100(90.9%)			
3.	**If yes, where did you do it**	**General Hospital**	**Gynecology clinics**	**Others**
	Missing 100 (90.9%)	10 (9.1%)	0 (0%)	0 (0%)
		17-20 Years	**21-25 years**	**Nil**
4.	At what age did you have the first Pap smear? **Missing 105 (95.5%)**	0 (0%)	5 (4.5%)	0 (0%)
		A year ago	**2 years ago**	**Others**
5.	When was the last time you had Pap smear test? **Missing 150 (95.5%)**	5 (4.5%)	0 (0%)	0 (0%)
		Doctor/ Nurse prescribed it	**Voluntary**	**Others**
6.	If you have had cervical cancer screening test done before, what were	10 (9.1%)	0 (0%)	0 (0%)

	the reasons for screening? **Missing 100 (91%)**			
		Yes	**No**	**Others**
7.	Have you been vaccinated against human papilloma virus? **Missing 27 (24.5%)**	15 (13.6%)	68 (61.9%)	0 (0%)

Table 3 shows the practices of Pap smear test. Majority 84.5% disagreed not to have ever had Pap smear test, while 9.1% agreed that they had Pap smear test and 9.1% said to have done the test at general hospital. 4.5% agreed to have done Pap smear test at the age of 21-25 years. 4.5% agreed to have had the Pap smear test a year ago. 4.5% agreed that reasons to go through cervical screening test was prescribed by doctor/nurse. Majority 61.9% disagree to have been vaccinated against Human Papilloma Virus while 13.6% agreed to have been vaccinated against Human Papilloma Virus.

On Table 3, finding revealed that majority 84.5% have not had the Pap smear test. 9.1% agreed that they had done it twice and 9.1% affirmed that they did the Pap smear test at general hospital. 4.5% agreed to have done Pap smear test between the ages of 21-25 years. 61.8% also stated that they have not been vaccinated against human papilloma virus.

A study conducted by Ijezie and Johnson (2019), on knowledge of cervical cancer and the uptake of the Papanicolaou smear test among public secondary school teachers in Akwalbom state, Nigeria. It was a cross-sectional descriptive study among 370 female teachers in Akwalbom state. Data was collected with a self-administered questionnaire and were analyzed. More than two-third (71.0%) of the

respondents had low knowledge of cervical cancer risk factors whereas 168 (57.9%) respondents had low knowledge of the symptoms.

Implications of Findings to Nursing Profession

The knowledge and practice of Pap smear among female students can have significant implications for nursing practice particularly for those working in women's health. In health promotion, Nurses can play an active role in promoting the uptake of Pap smear screening in their communities by organizing awareness campaigns and providing education about the benefits of early detection and prevention of cervical cancer. Nurses should also play a crucial role in providing health education to their patients who should include the importance of Pap smear and the benefits of the procedure. Nurses are usually involved in the Pap smear process from taking the sample to the laboratory for follow-up care. Therefore, it is essential for nurses to have a thorough understanding of the Pap smear procedure to ensure that patients receive adequate and accurate screening and follow-up care. Encouraging regular screening this is similar to health education and promotion. The nurses should consistently encourage regular screening practice among the patients.

Overall, the Knowledge and Practice of Pap smear among female students can significantly impact nursing practice in women's health. Nurses can contribute to improving the uptake and accuracy of screening through health education, communication and advocacy for screening and follow-up care.

Conclusion

Overall, the results of this study showed that the respondents possessed levels of knowledge and practice and factors affecting them on Pap smear test. The practice of Pap smear is very low among the students and more sensitization and awareness is needed to spread the knowledge and change their perception about the practice of Pap smear in order to

increase the practice of Pap smear and so decrease the prevalence and rate of cervical cancer.

Recomendations

Based on the findings of this study, the following recommendations are considered important. The school can organize awareness campaigns, educational seminar on cervical cancer screening which will show the procedures and the importance to facilitate easy access to screening at an affordable price. All these can increase the Knowledge and Practice of Pap Smear among female students and the incidence of cervical cancer will reduce with improvement on the overall reproductive health of female students.

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