

ISSN:3032-1085



## Investigation of Preventive Practices and Perception of Cervical Cancer Among Female Students at the Polytechnic in Ibadan, Oyo State

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*Received: Dec 06, 2023; Accepted: Jan 16, 2024; Published: Feb 08, 2024;*

**Abstract:** The objective of this study is to determine the perception of female students of the polytechnic of Ibadan, Oyo State, towards cervical cancer and preventive. A cross-sectional study design was used to determine the above objective. The survey included 429 female students who lived on the Polytechnic Ibadan campus. A systematic sampling technique was used to choose 210 rooms out of a total of 420 rooms, and all of the selected rooms' occupants were questioned under the premise that there were two people in each room. Data were gathered using a self-administered questionnaire that had been pretested. Respondents with one or more risk factors were classified as being at a higher risk for cervical cancer and those with no risk factors as being at a lower risk. Data was analyzed using descriptive statistics and Chi square test at  $p < 0.05$ .

Mean age of respondents was  $24.2 \pm 3.7$  years. More than half (60.3%) had good knowledge about cervical cancer and 55.1% had a good perception of cervical cancer. The identified risk factors were sexual debut before the age of 18 years (25.1%) multiple sexual partnering (11.6%), unprotected sexual intercourse (59.2%) and positive family history of cervical cancer (2.2%). Majority of the respondents (96.9%) were at a higher risk for developing cervical cancer. Few respondents (8.0%) had ever heard of the pap smear test and the major sources of information were the internet (33.3%) and hospital (25%). The uptake of pap smear test was low (1.8%). Majority of the respondents (71.9%) were not aware of where the pap smear test could be done. Only 4.7% were willing to receive the human papilloma virus (HPV) vaccine, while 5.1% were willing to do a pap smear test. The major

reasons cited for not wanting to do the pap smear test was lack of perceived need for the test (13.4%) and financial constraint (1.5%). Respondents who were 25 years and below and single were more likely to have a good perception of cervical cancer. Those aged <30 years (OR 1.39, 95% CI 0.34-5.66), single (OR 1.07, 95% CI 0.45-2.50), those from faculty of science (OR 1.22, 95% CI 0.57-2.58) and those that had low risk score (OR 2.66, 95% CI 0.54-12.98) were likely to have a good perception of cervical cancer.

Even though respondents had a fair amount of awareness about cervical cancer, they nevertheless exhibited significant behavioral risk factors for the condition. The pap smear test had very poor awareness and uptake. Therefore, it is necessary to develop health communication initiatives that would motivate tertiary students to apply their learning to prevent cervical cancer.

**Keywords:** Perception, Practice, Pap smear test, Human papilloma virus, Cervical cancer.

## INTRODUCTION

Cervical cancer continues to be a significant global health issue, causing a substantial burden of disease and mortality among women worldwide. Despite advancements in medical technology and preventive measures, cervical cancer remains a leading cause of cancer-related deaths, particularly in low- and middle-income countries. In this context, understanding the knowledge and perception of female polytechnic students regarding cervical cancer, its preventive practices, and identifiable risk factors is crucial.

Female polytechnic students represent a vulnerable population at a critical stage of their lives. They are transitioning into adulthood, establishing relationships, and making decisions that may impact their long-term health. Therefore, assessing their knowledge levels and perception regarding cervical cancer is essential for developing targeted interventions and promoting awareness.

Knowledge levels play a vital role in determining individuals' understanding of cervical cancer, including its causes, symptoms, consequences, and available preventive measures. The perception of cervical cancer among female polytechnic students also influences their attitudes, beliefs, and behaviors related to the disease. It is essential to explore their awareness of preventive practices, such as regular screenings, vaccination, and safe sexual behaviors. Additionally, identifying the identifiable risk factors associated with cervical cancer among this specific population is crucial for implementing effective preventive strategies.

By examining the knowledge and perception of female polytechnic students regarding cervical cancer, preventive practices, and identifiable risk factors, this study aims to contribute to the existing body of knowledge on this topic. The findings will provide valuable insights for healthcare professionals, educators, and policymakers in tailoring interventions that address the specific needs and challenges faced by female polytechnic students. Ultimately, enhancing their knowledge, promoting positive

Despite the existence of efficient interventions, cervical cancer persists in Nigeria and other underdeveloped nations. Early cervical cancer cases that can be treated to stop the disease can be found by screening. This is the first line of defense because many people who are suffering from the disease cannot afford the few centers where proper treatment is offered. Even in secondary healthcare facilities, early detection and practically complete cure are possible due to the lengthy transition period between premalignant lesions and frank cervix cancer. However, this window of opportunity which has enabled the developed countries to reduce the incidence of cancer of the cervix would be wasted if the level of screening is low (Chukwuali et al, 2003).

Even though 52.8% of respondents in an Owerri research by Ezen (2007) reported being

aware of cervical cancer screening, only 7.1% had ever undergone the test. Lack of awareness (46.1%), fear of a poor outcome (11.6%), and having no reason (12.5%) were cited as the main causes of poor uptake. Nevertheless, a number of studies have found that screening test uptake is low (8.5%), regardless of education or awareness. Regardless of education level, Onajole et al. (2004) in Lagos revealed low screening service acceptance (8.5%) among commercial sex workers. In order to comprehend the obstacles to using screening programs, it is crucial to investigate how at-risk women perceive and expect to be treated.

The purpose of this study is to assess the perception of female polytechnic students with regards to cervical cancer, various preventive practice, and identifiable risk factor.

## **OBJECTIVES**

### ***General Objectives***

To investigate the perception of cervical cancer and preventive practices among female students of the polytechnic Ibadan.

### ***Specific objectives.***

1. To determine the knowledge of female polytechnic students about cervical cancer.
2. To determine the perception of female students of the polytechnic Ibadan about cervical cancer.
3. To determine risk factors for cervical cancer among female Polytechnic students.
4. To assess the preventive practices of female polytechnic students with regards to cervical cancer.

## **Research Questions.**

1. What is the knowledge of female polytechnic students about cervical cancer.
2. What is the perception of female students of the polytechnic Ibadan about cervical cancer.
3. What is risk factors for cervical cancer among female Polytechnic students.
4. What is the preventive practices of female polytechnic students with regards to cervical cancer.

## **Research Hypothesis**

H<sub>0</sub>: There is no association between respondents socio-demographic characteristics and perception towards cervical cancer.

H<sub>0</sub>: There is no association between respondents socio-demographic characteristics and knowledge towards cervical cancer.

## **MATERIALS AND METHODS**

### **STUDY DESIGN**

A cross-sectional study design was adopted to investigate the knowledge and perception of cervical cancer and preventive practices among female students of the polytechnic Ibadan, Oyo State.

### **STUDY LOCATION:**

The Polytechnic, Ibadan was established on 7th August 1970 as a successor to the erstwhile Technical College, Ibadan under the provisions of a Principal Edit 1970. This Edict has undergone

several amendments in order to make The Polytechnic relevant to the present day needs of Oyo State, the proprietor in particular, Nigeria, and the World at large.

### **STUDY POPULATION**

The total population consist of 420 female students of the polytechnic Ibadan residing within the halls of residence.

### **SAMPLING METHOD**

There are a total of 420 rooms in the 4 female hostels located within the main campus. A multistage sampling technique was used to select respondents.

### **DATA MANAGEMENT**

Data was entered into a computer and analyses was also done with statistical package for social science(SPSS) Version 21. Descriptive statistics, including frequencies and percentages, was used to summarize the data. Inferential statistics, such as chi-square tests, was used to determine the association between variables at  $p\text{-value} < 0.05$ .

### **ETHICAL CLEARANCE**

Ethical clearance was obtained from the research and ethical committee of the UI/UCH and from The Polytechnic Ibadan authority.

a) Informed Consent: Participants were fully informed about the study's purpose and their rights to voluntary participation, confidentiality, and withdrawal.

b) Confidentiality: All data collected was kept strictly confidential and used only for research purposes.

c) Data Protection: The research team ensured that the data collected were securely stored and accessible only to authorized personnel.

d) Ethical Approval: The research proposal was submitted to the relevant ethics committee to obtain ethical clearance before data collection.

## **RESULTS**

### **SOCIODEMOGRAPHIC INFORMATIONS OF THE RESPONDENTS**

The mean age of the respondents and standard deviation were 24. 2±3.7 years. Most of the respondents were single 388 (87.3%) and of the Yoruba ethnicity 388 (86.6%). More than half of the students 392 (83%) were sponsored by their parents while 21(4.7%), 38(8.5%) and 17(3.6%) were sponsored by relative, husband, self/friend respectively. The study revealed that most of the female student were in the faculty of business and communication studies (FBCS) 292(65.2%). While only 88(19.6%), 16(3.6%), 46(10.3%) and 6(1.3%) were in the faculty of financial management studies (FFMS), environmental sciences, sciences and engineering respectively.

**TABLE 1: Sociodemographic characteristics of respondents**

Variable	n(%)	N = 448
<b>Age (years)</b>		
16-20	61(13.6)	
21-25	179 (40.0)	
26-30	100 (22.3)	
>30	14(3.11)	
<b>Marital status</b>		
Single	398 (87.3)	

Married	55 (12.3)
<b>Ethnic group</b>	
Yoruba	388 (86.6)
Igbo	40 (8.9)
Others (Hausa, Edo, Egun, Igara, Itsekiri)	20 (4.2)
<b>Responsible for education</b>	
Parent	392 (83.0)
Relative	21 (4.7)
Husband	38 (8.5)
Myself/friend	17 (3.6)
<b>Faculty of respondents</b>	
FFMS	88 (19.6)
FBCS	292 (65.2)
Environmental Sciences	16 (3.6)
Sciences	46 (10.3)
Engineering	6 (1.3)

### KNOWLEDGE ABOUT CERVICAL CANCER

Table 2 below showed that most of the female respondents 399 (89.1%) agree that cervical is a life threatening situation, 404 (90.2%) of the respondents agree that women who smoke are at a higher risk. Majority 328 (73.2%) agree that early age at onset of sexual intercourse increase risk. Large proportion of respondents 399 (75.7%) claimed that women who have multiple sexual partners tends to have a higher rate of cervical cancer. Most of the respondents 302 (67.4%) affirmed that cervical cancer is linked to human papilloma virus (HPV) infection. Only 253 (56.5%) claimed that women who are virgin were protected. Majority 293 (65.4%) do not agree that being slim reduces the chances of cervical cancer. Fewer respondents 200 (44.6%) reported that women with relatives that had a cervical cancer are at a higher risk.

**Table 2: Respondents Knowledge of Cervical Cancer**

Variable	n (%)	
	Yes (%)	No (%)
Cervical cancer is a life threatening situation	399 (89.1)	30 (6.7)
Women who smoke are at higher risk.	404 (90.2%)	36 (8.0%)
Early age at onset of sexual intercourse can increase risk	328 (73.2)	96 (21.4)
Women who have multiple sexual partner tends to have a higher rate of cervical cancer	339 (75.7)	87 (19.4)
Cervical cancer is linked to human papilloma virus (HPV) infection	302 (67.4)	67 (15)
Women who are virgins are protected	253 (56.5)	168 (37.5)
Being slim reduces the chances of cervical cancer	111 (24.8)	293 (65.4)
Women with relatives with cervical cancer are at higher risk	200 (44.6)	228 (50.9)

### KNOWLEDGE SCORE

The mean knowledge score is 5.62±1.5. Most of the female respondents 270 (60.3%) had good knowledge of cervical cancer.

**Table 3: Respondents Knowledge Score**

Variable	n (%)
Poor knowledge	178 (39.7)
Good knowledge	270 (60.3)

### DEMOGRAPHIC CHARACTERISTICS BY KNOWLEDGE

Respondents with good knowledge of cervical cancer were those age over 30 years, those that were married, students in ND 2, those from others ethnic group (Edo, Egun, Igara, Itsekiri) and respondents in the faculty of Engineering. ( $p>0.05$ ). However, this is not statistically significant.

**Table4: Respondents demographic characteristics by knowledge**

Variables	Poor knowledge	Good knowledge	X <sup>2</sup>	P value
<b>Age (years)</b>	<b>n (%)</b>	<b>n (%)</b>		
16-20	22 (36.1)	39 (63.9)	0.920	0.831
20-25	76 (42.5)	103 (57.5)		
26-30	41 (41)	59 (59)		
>30	5 (35.7)	9 (64.3)		
<b>Marital status</b>				
Single	159 (40.7)	232 (59.3)	1.269	0.260
Married	18 (32.7)	39 (67.3)		
<b>Year of study</b>				
ND1	33 (35.9)	59 (64.1)	3.460	0.326
ND2	35 (34.3)	67 (65.7)		
HND1	66 (44.9)	81 (55.1)		
HND2	42 (40)	63 (60)		
<b>Responsible for education</b>				
Parent	150 (40.3)	222 (59.7)	2.334	0.506
Relative	6 (28.6)	15 (71.4)		
Husband	13 (34.2)	25 (65.8)		
Myself/friend	8 (50)	8 (50)		
<b>Faculty</b>				
FFMS	33 (37.5)	55 (62.5)	2.543	0.637
FBCS	117 (40.1)	175 (59.9)		
Environment sciences	5 (31.3)	11 (68.8)		
Sciences	19 (41.3)	27 (58.2)		
Engineering	4 (66.7)	2 (33.3)		

### PERCEPTION OF CERVICAL CANCER

Majority of the participant 206 (46.0%) agreed that cervical cancer is a rare condition. Most 384 (85.7%) agree it can be treated if detected early. Large proportions of the respondents 353 (78.8%) agree that screening for cancer of the cervix is necessary to detect cancer of the cervix. Most respondents 210 (46.9%) disagree that if they had not had sex for many years, they would not need cervical cancer screening. Also majority 224 (50%) disagree with the notion that there is no need for cervical screening, if they had only one sexual partner.

**Table 5: Respondents Perception of cervical cancer**

Variable	n (%)		
	Agree n (%)	Uncertain n (%)	Disagree n (%)
Cervical cancer is a rare condition	206 (46.0%)	163 (36.4)	44 (9.8)
Cancer of the cervix can be treated if detected early	384 (85.7)	32 (7.1)	9 (2.0)
Screening for cancer of the cervix is necessary to detect cancer of the cervix.	353 (78.8)	52 (11.6)	19 (4.2)
If I hadn't had sex for many years I wouldn't need cervical cancer screening.	82 (18.3)	136 (30.4)	210 (46.9)
There is no need for cervical cancer screening if you had only one sexual partner.	99 (22.1)	108 (24.1)	224 (50.0)

### PERCEPTION SCORE

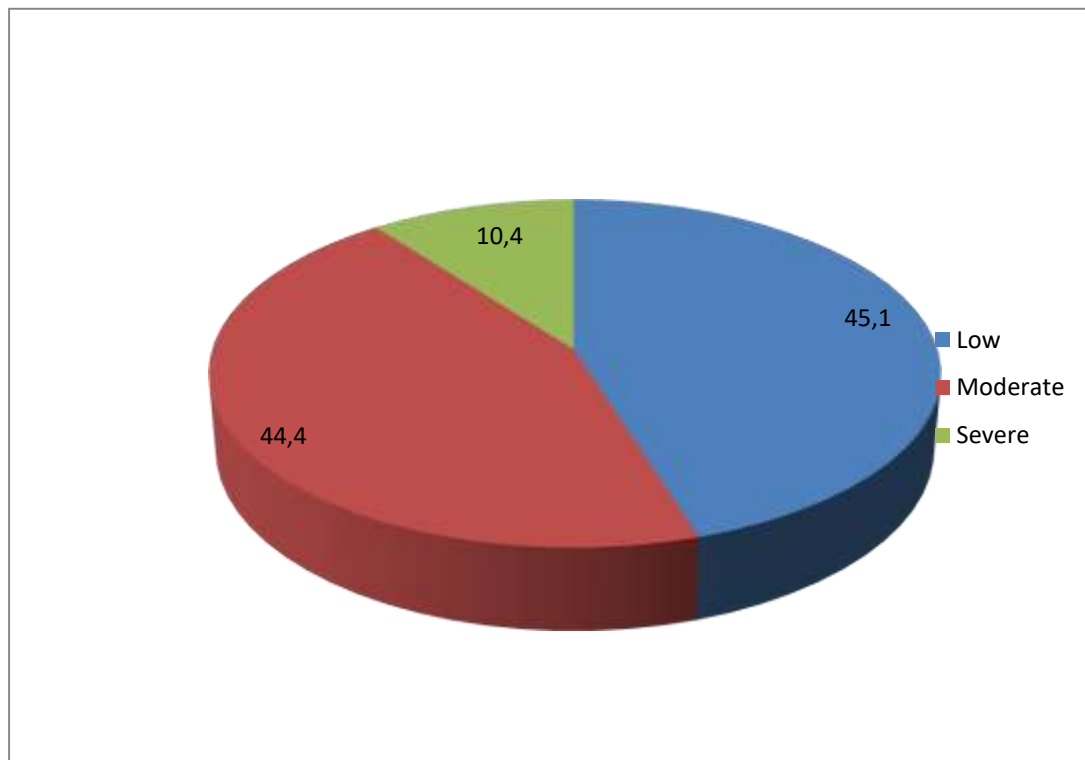
The mean perception score was 6.68±1.92. Most of the female respondents had good perception of cervical cancer 247 (55.1%).

**Table 6: Respondents Perception Score.**

Variable	n (%)
Poor perception	<b>190 (42.4)</b>
Good perception	<b>247 (55.1)</b>

### INDIVIDUAL RISK ASSESSMENT

Figure 1 below showed that only 15 (10.4%) were at high risk of cervical cancer. 64 (44.4%) reported moderate risk while 65 (54.1%) were at a lower risk of cervical cancer.



### DEMOGRAPHIC CHARACTERISTICS BY PERCEPTION

Table 7 below showed that respondents with good perception of cervical cancer were those age less than 25 years, single, in HND 2, respondents sponsored by parent and those from the faculty of Engineering.  $P < 0.05$ . Respondents from others ethnic group (Hausa, Edo, Egun, Igara, Itsekiri) also had good perception of cervical cancer ( $P > 0.05$ ) but this was not statistically significant.

**Table 7: Respondents demographic characteristics by perception**

Variable	Poor perception n (%)	Good perception n (%)	X <sup>2</sup>	P value
<b>Age</b>				
16-20	23 (38.3)	37 (61.7)	8.536	<b>0.036</b>
20-25	67 (38.3)	108 (61.7)		
26-30	53 (54.6)	44 (45.4)		
> 30	8 (57.1)	6 (42.9)		
<b>Marital status</b>				
Single	158 (41.6)	222 (58.4)	4.274	<b>0.039</b>
Married	31 (56.4)	24 (43.6)		
<b>Year of study</b>				
ND1	38 (43.2)	50 (56.8)	8.328	<b>0.04</b>
ND2	55 (53.9)	47 (46.1)		
HND1	61 (4.3)	81 (57)		
HND2	35 (34)	68 (66)		
<b>Responsible for education</b>				
Parent	147 (40.6)	215 (59.4)	7.684	<b>0.05</b>
Relatives	12 (57.1)	9 (42.9)		

Husband	22 (57.9)	16 (42.1)		
Myself/friend	9 (60)	6 (40)		
<b>Faculty</b>				
FFMS	39 (45.9)	46 (54.1)	10.910	<b>0.028</b>
FBCS	111 (39.1)	173 (60.9)		
Environmental Sciences	9 (56.3)	7 (43.8)		
Sciences	29 (63)	17 (37)		
Engineering	2 (33.3)	4 (66.7)		

### RISK OF CERVICAL CANCER

Table 8 below showed that respondents sexually active were 265 (59.2%). Median age at first sexual exposure was 21 years (range 1-22). Fifty two (11.6%) had multiple sexual partners. Only 10 (2.2%) had family history of cervical cancer. Very few respondents 30 (6.7%) had experienced sexually transmitted infection (STI) at a particular time. While 18 (4.0%) of the respondents were currently smoking cigarette. Median number of stick smoke per day was 2 (range 1-2).

**Table 8: Respondents risk of cervical cancer**

Variable	n (%)	
	Yes (%)	No (%)
Have you ever had sex	265 (59.2)	166 (37.1)
Have you ever had sex with other person other than your regular partner in the last 6 months.	52 (11.6)	352 (78.6)
Has any member of your immediate family (mother, sister) ever had cancer of the cervix	10 (2.2)	423 (94.4)
Have you ever had sexually transmitted infection	30 (6.7)	410 (91.5)
Have you ever had an induced abortion	35 (7.8)	403 (90.0)
Have you ever smoked more than a few puffs of tobacco	18 (4.0)	392 (87.5)

### RISK SCORE

335 (74.8%) of the respondent had high risk for cervical cancer. Only 14 (3.1%) had a low risk for cervical cancer.

**Table 9: Respondents Risk Score**

Variable	n (%)
High risk	335 (74.8)
Low risk	14 (3.1)

### DEMOGRAPHIC CHARACTERISTICS BY RISK

Respondents with high risk of cervical cancer were the single, those from all the ethnic groups, those with good and poor knowledge of cervical cancer ( $P>0.05$ ). The result was not statistically significant. Also respondents with good and poor perception of cervical cancer had higher risk too ( $P<0.05$ ). The result was however statistically significant.

**Table 10: Respondent demographic characteristics by risk**

Variable	Low risk n (%)	High risk n (%)	X <sup>2</sup>	P value
<b>Marital status</b>				
Single	14 (4.6)	291 (95.4)	2.057	0.152
Married	0 (0)	43 (100)		
<b>Knowledge</b>				
Poor knowledge	7 (4.9)	135 (95.1)	0.524	0.469
Good knowledge	7 (3.4)	200 (96.6)		
<b>Perception</b>				
Poor perception	2 (1.4)	141 (98.6)	3.913	<b>0.048</b>
Good perception	11 (5.6)	187 (94.4)		

## PREVENTIVE PRACTICE

### Information on Pap smear Test.

Only 36 (8.0%) of the respondents have heard of pap smear test. Most of the respondents 322 (71.9%) don't know where a pap smear can be done. The uptake of pap smear test was very low 8(1.8%). Sources of information about pap smear test reported include internet (33.3%), hospital (25%), books, magazines (16.7%), television/radio (11%), others (13.9%).

**Table 11: Respondents Information on Papsmear Test.**

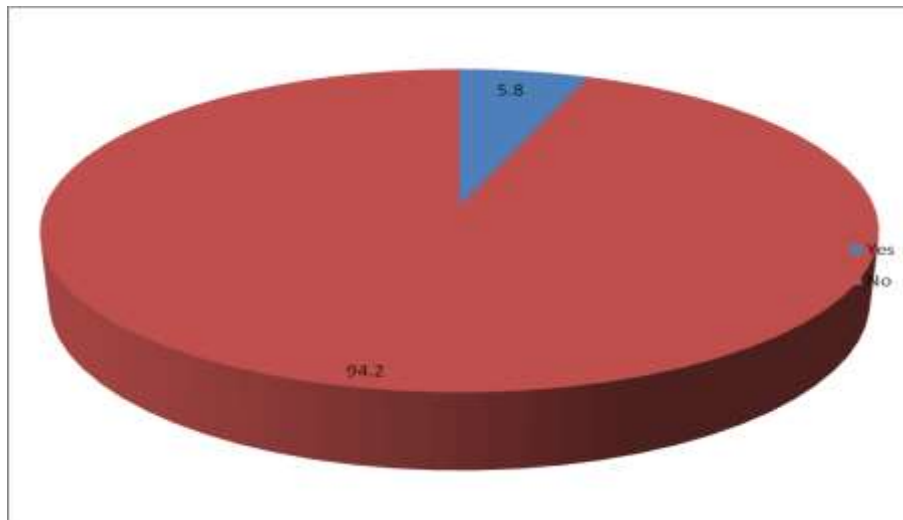
Variable	n (%)	
	Yes (%)	No (%)
Have you heard of the pap smear test?	36(8.0)	387(86.4)
Do you know where you can do a pap smear test?	21(4.7)	322(71.9)
Have you ever had a pap smear	8 (1.8)	317 (70.8)

### Willingness to do Pap smear Test

Only 32 (5.1%) of the respondents said they were willing to do pap smear. Some of the reason reported were not interested, don't know where it is done (0.2%) respectively. Others include lack of perceived need for the test (13.4%), financial constraint (1.5%), pain (1%), fear of bad result (5.1%), not been recommended by doctors (2.8%).

### Knowledge of human papilloma virus (HPV) vaccine .

Figure2 below shows that a large proportions of the respondents 339 (94.2%) have not heard of human papilloma virus (HPV) vaccine. So also 24(5.4%) said they were unwilling to receive HPV vaccination. The major reasons cited for the unwillingness include lack of awareness (0.2%), lack of interest (0.2%), lack of knowledge of were vaccine could be gotten (0.2%).



### Predictor of good perception of cervical cancer

Respondents age <30 years, Single those from faculty of Sciences and those that had low risk score are likely to have a good perception of cervical cancer, however this is not statistically significant ( $P>0.05$ ).

**Table 12: Predictor of good perception of cervical cancer among the respondents**

Variables	OR	95% CI lower-upper	p-value
<b>Age</b>			
≥ 30	1.000	0.341-5.657	0.647
< 30	1.389		
<b>Ethnic group</b>			
Others	1.001	0.291-1.335	0.224
Yoruba	0.623		
<b>Marital status</b>			
Married	1.000	0.447-2.505	0.878
Single	1.071		
<b>Year of study</b>			
HND	1.000	0.524-1.535	0.691
OND	0.897		
<b>Faculty</b>			
FFMS	1.000		
FBCS			
Science	1.217	0.574-2.584	0.552
<b>Risk score</b>			
High risk	1.000	0.544-12.983	0.227
Low risk	2.659		

## **DISCUSSION, CONCLUSION AND RECOMMENDATION**

### **DISCUSSION**

This study has examined the perception of cervical cancer and preventive practice among female students of The Polytechnic, Ibadan.

Demographic characteristics of the students revealed a preponderance of adolescent attending the school. More than half of the study population were age 25 years and below. This was similar to findings by Arowojolu et al, 2012 among similar population.

Three quarter of the students had good knowledge of cervical cancer. Most agree it is a common disease, they knew about pap smear test and that cervical cancer is curable, if detected early. This is similar to the study conducted by Nganwai et al (2008) in Chile that revealed a much lower value because only about one third of women aged 25 years old in the outpatient department of the hospital knew that pap smear test was conducted in order to detect neoplasia. Similar study conducted in Greece and Finland by Akujobi et al (2008) shows that less than half of the respondents had knowledge about pap smear. Although the general knowledge was similar (less than half), the level of knowledge of women in Finland was significantly higher. In the third world country the picture seems to be worse, among university students. Another study conducted by Moreira et al (2006), among adolescent in Brazil revealed that majority of the respondents had low grade of knowledge on cervical cancer. However for knowledge on prevention, the majority of respondents obtained an intermediate grade. This indicate that the respondents were more concerned about preventing cervical cancer than knowing more details about the disease.

In this study there was significant association between grade of knowledge and programme. It is reasonable as subjects taken by different programmes were not the same. Year of education showed the importance of education. According to a study conducted by Baer et al (2007), majority of first year student knew only a little regarding HPV infection and how it spreads. The study shows that respondents with higher education level had more exposure and knowledge on different patient and diseases. It is because first year students learnt only basic theories. Through exposure and experience gained from lessons and practicals, second and third year students would definitely have more in depth knowledge in their particular field. However, respondents, irrespective of their year of education, did not take initiative to obtain more health information.

This study showed that lowest knowledge about risk factors for cervical cancer was HPV. This is consistent with findings of National Cancer Institutes 2005. Health information national trends survey in the United State which showed that only one fifth of American women know that HPV can cause cervical cancer (Lambert 2004). Therefore, there is need to educate young women on the role of HPV in the aetiology of cervical cancer and its prevention. The mass media plays an important role in this context and its function should be optimized. This is in line with the study conducted by Akujobi et al (2008) who reported a higher level of knowledge of cervical cancer among female tertiary institution student in South Eastern Nigeria. Another study by Jasmen et al (2006), in United State revealed that only less than one tenth of the respondents knew that HPV is associated with cervical cancer which is similar to what obtains in this study.

This study revealed that more than half of the respondents had good perception about cervical cancer, more among the single than married. About two-third of the HND II student had good perception of cervical cancer. However, Paraskevopoulou et al (2005) in Greece reported a poor perception of cervical cancer among the respondents. He noted that the picture seems to be worst among university students and nurses. And A study conducted by Gharoro et al (2006) revealed a similar level of perception reported in this study. Tan et al (2010) Malaysia reported that two-third of the respondents had good perception of cervical cancer. This value is higher than

that reported in this study. Mass media and education were the most common sources of information for respondents. Similar findings were reported by Gerend et al (2008), in Malaysia among women who were age 18 to 26 years. Other common references include posters and pamphlets in the campus, family, and friends. Hence programs on university campus as well as programs targeting the public can be very effective in educating women on the preventive measures for cervical cancer. Ayinde et al (2004), in Ibadan reported that three-quarter of the respondent had perception about cervical cancer a value higher than one gotten from this study, perception more among the married than single and among medical students. However, perception of papanicolaous smear was also much lower among the student, which is similar to what obtains in the study.

It was observed from this study that the risk of developing cervical cancer is high for most women in third world due to peculiar socioeconomic characteristics including poverty and illiteracy which reduces the power of women to bargain in sexual matters. Others are low prevalence of condom use, high parity and poor utilization of screening facility (Bosch et al 2009). This studies show that the risk factors for developing the disease are also prevalent among undergraduates. Two-third of the study population were sexually active, many of them also had early sexual debut. Over half of them had their sexual exposure before age 24 years and majority don't utilize condom. Less than half of the respondent had multiple sexual partners, positive family history of cervical cancer and engaged in induce abortion said to have been carried out by medical personnel (nurses) similar study by Ayinde et al (2004), in Ibadan revealed that more than half of the respondent engaged in multiple sexual partnering, value much higher than that gotten in this study. Also two third of the female adolescent are sexually active, value similar to what obtains in this study. Akujobi et al (2008) also reported that a higher proportions of the female respondents were sexually active in his study.

This study revealed that having a correct knowledge and perception of cervical cancer affects utilization of preventive practices. Another major finding is that awareness of papanicolaous smear far outweighed its utilization by the undergraduate, only very few (1.8%) had a papsmear test before. A high rate of non utilization of the test was not surprising as previous survey carried out among female health professionals working in hospitals where facilities for the test are available shows similar negative attitude towards having it. Ayinde et al 2004. Similar finding was reported among Nigeria female university students which report 8.3% of the participant had pap smear test before (ayinde etal 2004). Similar finding by Aniebue and Aniebue (2010) reported that the practice of cervical screening was low (5.2%). Udigwe 2005 reported low level of practicing pap smear test (5.7%) among female health workers. Another finding by Hoque and Hoque (2009) shows that 9.8% of the participant had the pap smear test done which is higher than in this study. The reason for poor screening includes lack of knowledge about the availability of screening, and culturally influenced reluctance to undergo cervical smear test (Wong et al, 2006).

Development of cervical cancer in the majority of women occur over many years, so these precancerous changes can be observed, followed and treated, (Garner, 2003). Official recommendation is for women to undergo the pap smear test annually in the initial two years and subsequently, once every three years, with priority for sexually active women who are more than 35 years old, have more than five children or who are new acceptors of family planning services, and women who attend postnatal and family planning services are primary targets. (Chee et al 2003). Regarding the barrier of cervical cancer screening, the most common barrier of cervical cancer screening, were the pap smear test will make them worry which is concurrent with similar research that reported anxiety and fear in association among those who participated in screening.

Foxwell et al (2005). The reasons for anxiety in some patients had been suggested to result from the sensitive situation concerning intimacy associated with the examination, similar findings were reported by another studies. Bener et al (2005) reported that the fear of discovering of cancer is one of the barriers among study participants, followed by no encouragement or information from healthcare workers. Similar findings were reported from studies conducted in South Africa (Wellensick et al 2004), among Vietnamese American women.

Healthcare worker reminder about the cervical cancer screening has been used to raise rates in communities in other parts of the world (Byles et al 2006). This suggests that primary healthcare workers such as community health nurses should be an important part of any new program aimed at increasing cervical cancer screening rates (Abotchie and Shokar 2009). Health care workers of the clinic can educate health care users, targeting the risk population on risk factors for cervical cancer and motivate them to have a pap smear performed. Mandelblatt and Rabroff (2011) acknowledge physician recommendation to be one of the most powerful predictors of screening across all age, socioeconomic and ethnic group. The positive influence of physician recommendation on cancer screening uptake has been well documented in numerous studies in the United State (Juon et al,2005).

Healthcare provider influence women screening behaviors. It was found that the underutilization of cervical cancer screening might be due in part to a lack of physicians recommendation. There appears to be a need to improve health education by health care providers as women reported that they had never been informed of the existence and importance of pap smear by healthcare professionals (Wong et al 2009). Another important barrier mentioned by participants was lack of information about screening sites. A similar finding was reported by Abotchie and Shokar (2009). Similar findings was reported by Ayinde et al, (2004) that 16% of the study participants had lack knowledge of centers where the test could be done. Similar findings was reported by Aniebue Aniebue (2010) reported that 34% of the participants did not know where to obtain a pap smear. The places of screening should be easily addressed with simple information provision. Cost is one of the important barrier reported by almost half of the study participants. Similar findings were reported by Ayinde et al, (2004) that 5.9% of the participants mentioned that cost is one of the barriers of cervical cancer screening. Similar findings were reported by Abotchi and Shokar (2009). This may be due to the lack of knowledge in this regard and may be due to culture and the background of the respondents.

The less common barriers reported among participants was no encouragement from the partner. Similar finding by Abotchie and Shokar (2009) reported that one of the barrier among their study participant was that whether their partner would want them to have a pap smear test. This finding has implications on public health interventions and suggested that broad base public initiation will be needed to overcome these barriers (Abotchie and Shokar 2009).

Health education appears to have a prominent role to play in increasing awareness and addressing some of the negative biases the students have against the test (Ayinde et al 2004). Awareness campaign should be intensified through hospital visits, mass media and public lecture. (Ayinde et al 2004). Embarrassment was reported as barrier among these study participants. Similar studies reported that included embarrassment was the barriers among the participants. Gamarra et al (2005). Embarrassment was confirmed by other reports (Lovell et al 2007). Regarding pain and discomfort associated with pap smear test, was reported as a barrier in this study. Similar studies reported included misconception about the test being painful (Gamarra et al 2005). This may be a difficult barrier to overcome among asymptomatic women. Those who expressed this concern may have had painful and unpleasant experiences with prior pap tests, or

have heard about experiences from others. To help women cope with concerns about pain and discomfort associated with pap test, interventions could focus on detailing the nature of the sample and teaching women some relaxation skills. In addition, the possibility of pain needs to be acknowledge rather than ignored so that women can feel a sense of trust.

Concerning HPV vaccination, less than one tenth of the respondents were willing to be vaccinated if they had opportunity. Allen et al (2009) reported a much higher rate of HPV vaccination in his study (40%). Data from the national immunization survey of adults in 2007, a more demographically heterogeneous sample, reported an HPV vaccination rate of 10% among women age 19-26 years. A 2007 survey of female college students at a north eastern university reported an HPV vaccination rate of 12%. (Center for disease control and prevention 2007). Ellen et al (2010) in a study reported that less than half of the female respondents have received HPV vaccination.

### **CONCLUSION**

Understanding the knowledge and perception of female polytechnic students regarding cervical cancer, preventive practices, and identifiable risk factors is crucial for effective intervention strategies. This proposed study aims to contribute to the existing literature, inform healthcare professionals, and improve the overall cervical cancer awareness and prevention efforts among this specific population. The study showed that majority of the female students had good knowledge and perception of cervical cancer and at high risk but with very poor uptake of screening test (pap smear test)

### **RECOMMENDATIONS**

The following recommendations were made on the basis of the study:

1. Education about families and sexuality ought to be included in the curriculum.
2. Reproductive health should be made a required general studies course at The Polytechnic for both males and girls.
3. These young individuals should be urged to extend the age of first coitus, decrease the number of sexual partners and embrace use of condoms.
4. It will be desired to incorporate the cervical screening program and other reproductive health services into the delivery of The Polytechnic health services because the current logistics required in getting a pap smear are too onerous and discouraging.

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