



## UPTAKE OF CERVICAL CANCER SCREENING AMONG FEMALE TEACHERS IN PUBLIC SECONDARY SCHOOL IN EGOR LOCAL GOVERNMENT AREA OF EDO STATE

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### ABSTRACT

**Background:** Cervical cancer is the fourth most common cancer among women worldwide, the level of knowledge and uptake of cervical cancer screening among women especially secondary school teachers in the country is unclear due to lack of reliable population-based cancer registry or prevention program databases. The study assessed knowledge, attitude, uptake of cervical cancer screening and its associated factors among female secondary school teachers in Egor local government area of Edo state.

**Method:** A descriptive cross sectional survey design was adopted, using simple random technique to select participants and a structured questionnaire as instrument for data collection. Data were analysed using descriptive statistics and hypothesis was tested using chi-square and multiple logistic regression at 5% level of significance.

**Result:** Only 32(14.5%) of the respondents has good knowledge of cervical cancer screening, 125(56.8%) had negative attitude toward cervical cancer screening, while 197(89.9%) has a low uptake of cervical cancer screening. Participants between (25–34) (OR=15.20, C.I= 2.57 - 89.93) are more likely to take part in uptake of cervical cancer screening than those who were 55years and above, married participants (OR=18.82, C.I = 2.67 - 132.75) are more likely to take part in uptake of cervical cancer screening than those who are divorced.

**Conclusion:** There is poor knowledge, negative attitude and low uptake of cervical cancer screening among female secondary school teachers in study area, there is need for health care providers to





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ensure that secondary school teachers have a proper understanding and explore the uptake of cervical cancer screening service.

**Keywords:** knowledge, Uptake, Factor, Cervical cancer screening, Female teachers, Secondary school.

## INTRODUCTION

Cervical cancer is currently the most common leading cause of death in developing countries which is a widely recognized gynaecological disease and a second leading cause for malignant growth demise among females<sup>1</sup>. Every minute around the world a woman dies of cervical cancer<sup>2</sup>. In 2015, about 75,000 new cases were reported in Africa cutting across all countries<sup>3</sup>. Cervical cancer is the fourth most common cancer and also the fourth leading cause of cancer-related deaths in women globally. Also, with over 570,000 new cases documented in 2018, 90% of which were recorded in the developing countries, and 311,000 deaths were documented<sup>4</sup>. According to the Cervical Cancer Global Crisis Card, Nigeria ranks 5<sup>th</sup> among countries with regards to death count from cervical cancer, after India, China, Brazil and Bangladesh<sup>5</sup>. In Nigeria, cervical cancer is the second leading cause of cancer death, one woman dies from cervical cancer every single hour and 9,000 women every year making it a public health issue<sup>6</sup>. Cervical cancer has been reported as one of the few preventable human cancers because its prevention is based on the early diagnosis of precancerous lesions which can be detected through cervical cancer screening<sup>7</sup>.

Cervical cancer screening is the testing of all women at risk of cervical cancer, most of whom will be without symptoms, the screening aims to detect precancerous changes, which, if not treated, may lead to cancer<sup>8</sup>. Several tests can be used in screening for cervical cancer but Pap smear (cytology) is the only test that has been used in large populations and that has been shown to reduce cervical cancer incidence and mortality<sup>9</sup>. Other less invasive techniques have been developed for rapid screening of cancer of the cervix which are Visual Inspection with Acetic Acid (VIA) and Visual Inspection with Lugol's Iodine (VILI). Although these methods are faster and less cumbersome, they have been discovered to be less sensitive compared to cytology examination through Pap smear and this could lead to false result and can lead to immense psychological problem and wrong treatment<sup>10</sup>.



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The level of knowledge and utilization of cervical cytological services among women in the country is unclear due to lack of reliable population-based cancer registry or prevention program databases<sup>11</sup>. Over the years, studies report that uptake of cervical cancer screening has remained low. A study conducted in Benin City showed that there is poor knowledge and practice of the cervical cancer screening<sup>12</sup>. Also, another study in Abakaliki showed that despite high level of awareness of cervical cancer screening, the utilization remained low<sup>13</sup>. Despite effort made by the federal government in the commencement of cancer prevention programme in various federal health institutions in the country, studies from various parts of the country still report low level of knowledge of cervical cancer screening and uptake among public secondary school teachers, despite relatively high level of cervical cancer awareness<sup>14</sup>. Secondary school teachers have a role to play in the life of a female teenage girl child in educating and caring for them because this is the stage where they start becoming sexually exposed and developing emotional needs. A high uptake rate of cervical cancer screening among secondary teachers will be passed on to the students because knowing the benefit of cervical screening they will want their students to partake in it during their sexually active life. Studies have been conducted on different populations on the uptake of cervical cancer screening but there are dearth of empirical literature focusing on secondary school teachers who are one of the key stakeholders when it comes to mentoring the adolescent girl child. Hence, this study is conducted to assess the knowledge, attitude and uptake of cervical cancer screening among female teachers in selected public secondary schools in Egor local government area of Edo state.

Specific objectives of the study are therefore to assess the level of knowledge, determine the attitude, assess the level of uptake and ascertain factors affecting the level of uptake of cervical cancer screening of female secondary school teachers in Egor local government area of Edo State.

## **METHODOLOGY**

**Study Design:** The study adopted a descriptive cross sectional survey design in selected public secondary schools in Egor local government area of Edo state. Egor local government area is one of the thirteen local government areas that make up Edo state. There are 12 public schools and 15



private schools. The twelve public secondary schools were used for the study. these school are; Egor secondary school, Federal government girls’ college, Iyoba girls’ secondary school, Government science technical college, Ohonre grammer school Boys College, Eweka secondary school, Uwelu secondary school, Uselu Secondary school, Use secondary school, Edo boys high school, and Evbereke secondary school all in Egor local government area of Edo state.

**Target Population/ Sample size:** the study population were four hundred and ten (410) female teachers in twelve (12) public secondary school in Egor Local government area of Edo state.

The sample size for this study is Two hundred and twenty two (222) female teachers from secondary schools in Egor local government area of Edo state which was gotten from the total population of four hundred and ten (410), using Taro Yamane, (1967) formula as shown below:

$$n = \frac{N}{1 + N(d)^2} \quad \text{Where } n = \text{sample size, } N = \text{population size, } D = \text{level of precision (confidence interval), } N = 410, D = 0.05$$

interval), N = 410, D = 0.05

$$n = \frac{410}{1 + 410(0.05)^2} = \frac{410}{1 + 1.025} = \frac{410}{2.025}$$

$$n = 202$$

Attrition ratio of 20 which is 10% of the sample size 202+20=222



**Table 1: Sample size distribution by proportion**

Proportional sampling was used to allocate this sample size to the different schools as shown below in table 1.

	Name of schools	Number of female teachers	Sample from the schools		Percentage distribution among schools
1	Edo boys high school	47	47/410x222	25	11.3%
2	Egor secondary school	22	22/410x222	12	5.4%
3	Evbuotubu secondary school	38	38/410x222	21	9.4%
4	Evbereke secondary school	17	17/410x222	9	4%
5	Federal government girls college	49	49/410x222	27	12.1%
6	Government science technical college	21	21/410x222	11	5%
7	Iyoba girls secondary school	34	34/410x222	19	8.6%
8	Uwelu secondary school	43	43/410x222	23	10.4%
9	Uhonre grammer school boys college	29	29/410x222	16	7.1%
10	Uselu secondary school	28	28/410x222	15	6.8%
11	Eweka secondary school	39	39/410x222	21	9.5%
12	Use secondary school	42	42/410x222	23	10.4%
	Total	410		222	100%

**Sampling Technique:** A simple random sampling technique which is a type of probability sampling was used to recruit the participants into the study. A YES or NO papers were placed in a bag wrapped. Those that picked yes were recruited for this study and were repeated in all the schools.

**Instrument for Data Collection:** A self-constructed questionnaire was used for collecting data from these female teachers. The questionnaire was divided into five sections

**Section A:** contained the demographic data of the participants, **Section B:** consist of questions on knowledge of cervical cancer and its screening, **Section C:** consist of attitudinal questions on



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cervical cancer screening, **Section D:** Uptake of cervical cancer screening, **Section E:** Factors affecting the uptake of cervical cancer

**Validity/Reliability of Instrument:** The reliability of the questionnaire was determined using split-half model of test of internal consistency. A pretest was conducted giving 20(10% of the sample size) teachers' questionnaires in another school and the Cronbach's Alpha value of 0.718 (>0.7) for knowledge of cervical cancer screening, 0.814(>0.7) for attitude of cervical cancer screening, 0.732(>0.7) for uptake of cervical cancer screening and 0.758(>0.7) for factors that affect uptake of cervical cancer screening which suggests that the reliability of the test instrument is strong.

**Method of Data Collection:** Data were collected with the help of three research assistants who were trained in the act of obtaining data. The questionnaires were administered to the participants that have been randomly selected after informed consent have been obtained. This was done each day during the break period in their respective offices after informed consent have been obtained.

**Method of Data Analysis:** The data was analyzed using simple descriptive statistics of frequencies and percentages. The coded data was analyzed with the help of the Statistical Package for Social Sciences (SPSS) version-21.

**Ethical Consideration:** Ethical clearance with protocol number *PRS/DF/141/42* was obtained from the ethical and research committee of ministry of education in Edo state. Confidentiality was assured by ensuring anonymity of the respondents. The respondents were given the option to pull out of the study at any point. None of the participants were unduly inconvenienced throughout the period of the study. It was also explained to them that all information given will be treated with utmost confidentiality. Permission to carry out the study was sought and obtained from the school heads with reference letter from Ethics and Research Committee.



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## RESULTS

**Table 2: Demographic data of respondents**

	Frequency	Percentage
<b>Age</b>		
25-34 years	118	53.6
35-44 years	57	25.9
45-54 years	33	15.0
55 and above	12	5.5
<b>Marital Status</b>		
Single	36	16.4
Married	176	80.0
Divorce	8	3.6
<b>Religion</b>		
Christian	204	92.7
Islam	16	7.3
<b>Tribe</b>		
Bini	191	86.8
Igbo	15	6.8
Yoruba	8	3.6
Others	6	2.7
<b>Level of education</b>		
NCE	1	0.5
HND	28	12.7
B.Sc	189	85.9
Masters	2	0.9

Table 2 shows demographic data of respondents. Majority 53.5% were within the age range of 25-34 years, most respondents 80% were married, overwhelming majority 92.7% of the respondents were Christians, 86.8% were Bini's, 85.9% were B.Sc holders.

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**Table 3: Knowledge of Cervical Cancer**

Knowledge items	Wrong	Correct
	answer	answer
	F (%)	F (%)
1.Cervical cancer is a cancer that affects which of the following organ	28(12.7)	192(87.3)
2.Cervical cancer is caused by which of the following virus	16(7.3)	204(92.7)
3.Risk factors for cervical cancer are except	159(72.3)	61(27.7)
4.The following are symptoms of cervical cancer except	67(30.5)	153(69.5)
5.The following are type of cervical cancer screening except	41(18.6)	179(81.4)
6.Which of the following is referred as the gold standard for cervical cancer screening	82(37.3)	138(62.7)
7.Which women are eligible for cervical cancer screening	198(90.0)	22(10.0)
8.Which of the following can be described as a pap smear test	129(58.6)	91(41.4)
9.At what state can cervical cancer be treated	132(60.0)	88(40.0)

Level of knowledge			
Classification	Range of score (%)	Frequency	Percentage
Poor	0-49.9	60	27.3%
Average	50-69.9	128	58.2%
Good	70-100.	32	14.5%

In this study 60(27.3%) female teachers have poor knowledge, 128(58.2%) female teachers have a fair knowledge and 32(14.5%) has a good knowledge.





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**Table 4: Attitude of Cervical Cancer Screening**

	SD	D	A	SA	$\bar{x}$	St.D	Rmk
1.It is necessary for all eligible females to go for cervical cancer screening	6 (2.7)	117 (53.2)	63 (28.6)	34 (15.5)	2.57	0.78	+
2.Screening can help in early detection and better treatment	69 (31.4)	63 (28.6)	49 (22.3)	39 (17.7)	2.26	1.09	-
3.Screening procedure can be painful	51 (23.2)	34 (15.5)	115 (52.3)	20 (9.1)	2.47	0.95	+
4.It is against my religious belief and cultural values to go for screening	59 (26.8)	44 (20.0)	83 (37.7)	34 (15.5)	2.42	1.05	+
5.It is not possible for a person to get cervical cancer therefore no need of going for screening	63 (28.6)	42 (19.1)	89 (40.5)	26 (11.8)	2.35	1.02	+
6.Cervical cancer is hereditary and the screening is only undergone by those that have it in the family	43 (19.5)	44 (20.0)	105 (47.7)	28 (12.7)	2.54	0.95	-
7.Cervical cancer affects promiscuous women only	43 (19.5)	36 (16.4)	117 (53.2)	24 (10.9)	2.55	0.93	-
8.Going for pap smear is expensive	33 (15.0)	20 (9.1)	137 (62.3)	30 (13.6)	2.75	0.88	-
9.Fear of the results prevents me from going for the screening	31 (14.1)	34 (15.5)	135 (61.4)	20 (9.1)	2.65	0.83	-
10.It is embarrassing to undergo screening procedures	34 (15.5)	37 (16.8)	118 (53.6)	31 (14.1)	2.66	0.90	-
11.Every female is at risk of getting cervical cancer hence no need to go for the screening	39 (17.7)	50 (22.7)	117 (53.2)	14 (6.4)	2.48	0.86	+
12.Cervical cancer screening will affect my female reproductive organ	35 (15.9)	38 (17.3)	106 (48.2)	41 (18.6)	2.70	0.95	-
Overall attitude					2.53		+

*For questions one and two average score greater than 2.5 was considered positive attitude and those less than 2.5 was considered negative attitude for questions three to twelve average score greater than*



2.5 was considered negative attitude and less than 2.5 was considered positive attitude. (+) stands for positive factor while (-) stands for negative factor. SD (strongly disagree= 4) D (Disagree = 3) A (Agree = 2) SA (Strongly agree = 1).

Summary of level of attitude towards cervical cancer screening, shows that most respondents 125(56.8%) had negative attitude while 95(43.2%) had a positive attitude. However, the overall average score show that the overall attitude is negative (2.53>2.50).

**Table 5: Uptake of Cervical Cancer Screening**

	Frequency	Percentage
<b>Have you gone for cervical cancer screening</b>		
Yes	23	10.5
No	197	89.5
<b>How frequently have you gone for cervical cancer screening</b>		
Once in fifteen years	4	17.4
Once in ten years	7	30.4
Once in five years	12	52.2
<b>Where was the cervical cancer screening done</b>		
Federal hospital	2	8.7
State hospital	1	4.3
Community hospital or outreach	18	78.3
Herbal home	2	8.7
<b>Who performed the cervical cancer screening</b>		
Nurse	4	17.4
Doctor	11	47.8
Herbalist	8	34.8
<b>What method of cervical cancer screening was used</b>		
Pap smear	7	30.4
Visual inspection with acetic acid	1	4.3



Inspection with lugol iodine		3	13.0
HPV testing		12	52.3
<b>Level of uptake of cervical cancer</b>			
Classification	Criteria score	Frequency	Percentage (%)
Low	Never gone for screening in the past 15 years of adult age	197	89.5
Moderate	Gone for screening once in the past 15 years of adult age	11	5.0
High	Gone for screening twice in the past 15 years of adult age	12	5.5

*This was classified as low uptake for those that has never gone for cervical screening, moderate for those that has gone for screening once in 10 - 15 years and high for those that have gone once in 5 years.*

The shows the level of uptake of cervical cancer screening, among the respondents 12 (5.5%) has a high uptake of cervical cancer screening, 11(5%) has a moderate uptake of cervical cancer screening and 197(89.5%) has a low uptake of cervical cancer screening.

**Table 6: Factors affecting the Uptake of Cervical Cancer Screening**

	SD	D	A	SA	$\bar{x}$	St.D	Remark
Lack of knowledge on cervical cancer screening	35 (15.9)	33 (15.0)	118 (53.6)	34 (15.5)	2.69	0.92	Factor
Partner disapproval	18 (8.2)	5 (2.3)	168 (76.4)	29 (13.2)	2.95	0.69	Factor
Not feeling at risk	41 (18.6)	18 (8.2)	117 (53.2)	44 (20.0)	2.75	0.98	Factor



Lack of interest	33 (15.0)	38 (17.3)	128 (58.2)	21 (9.5)	2.62	0.85	Factor
Religion	38 (17.3)	26 (11.8)	136 (61.8)	20 (9.1)	2.63	0.87	Factor
Outcome	35 (15.9)	31 (14.1)	132 (60.0)	22 (10.0)	2.64	0.87	Factor
Unavailability of screening center	26 (11.8)	31 (14.1)	123 (55.9)	40 (18.2)	2.80	0.87	Factor
Lack of finance	43 (19.5)	35 (15.9)	93 (42.3)	49 (22.3)	2.67	1.03	Factor
Culture	35 (15.9)	48 (21.8)	114 (51.8)	23 (10.5)	2.57	0.88	Factor
Misinterpretation from other colleagues/people	28 (12.7)	36 (16.4)	132 (60.0)	24 (10.9)	2.69	0.83	Factor
Being shy	25 (11.4)	34 (15.5)	128 (58.2)	33 (15.0)	2.77	0.84	Factor

The mean score of +(positive factor) >2.50 is positive. SD (Strongly agree = 4) D (Disagree= 3) A (Agree = 3) SA (Strongly agree = 1).

Table 6 shows factors affecting the uptake of cervical cancer screening. It showed that all the items listed were factors affecting uptake among the respondents as the mean is > 2.50.

#### Association between level of knowledge and level of attitude

The association between level of knowledge and level of attitude. It shows that there is a significant association ( $\chi^2$  45.989 p 0.000 <0.05) between level of knowledge and level of attitude. We therefore reject the null hypothesis.

#### Association between socio-demographic characteristics and level of knowledge

There was a significant association between socio-demographic characteristics and level of knowledge AGE; ( $\chi^2$  62.403, p=0.000<0.05), Marital status ( $\chi^2$ 37.845, p=0.000<0.05), religion



( $\chi^2$ 25.554,  $p=0.000<0.05$ ) tribe ( $\chi^2$  12.058,  $p=0.000<0.05$ ) level of education ( $\chi^2$  26.553,  $p=0.000<0.05$ )

**Association between socio-demographic characteristics and attitude of participants**

There was a significant association between socio-demographic characteristics and attitude of participants AGE; ( $\chi^2$  55.455,  $p=0.000<0.05$ ), Marital status ( $\chi^2$ 23.317,  $p=0.000<0.05$ ), religion ( $\chi^2$ 22.704,  $p=0.000<0.05$ ) tribe ( $\chi^2$  11.741,  $p=0.000<0.05$ ) level of education ( $\chi^2$  12.496,  $p=0.000<0.05$ )

**Association between socio-demographic characteristics and level of uptake of participants**

There was a significant association between socio-demographic characteristics and level uptake of participants AGE; ( $\chi^2$  14.467,  $p=0.002<0.05$ ), Marital status ( $\chi^2$ 25.782,  $p=0.000<0.05$ ), religion ( $\chi^2$ 1.268,  $p=0.260<0.05$ ) tribe ( $\chi^2$  9.551,  $p=0.023<0.05$ ) level of education ( $\chi^2$  18.116,  $p=0.000<0.05$ )

**Table 7: Multivariate logistic regression association between socio-demographic variables and level of knowledge**

	P	OR	95% C.I. for OR
<b>Age</b>			-
25-34 years	0.000	41.64	8.54-203.16
35-44 years	0.041	4.19	1.06-16.57
45-54 years	0.811	1.19	0.28-5.07
55 and above		1.00	
<b>Marital Status</b>			-
Single	0.078	0.15	0.02-1.23
Married	0.646	1.55	0.24-9.91
Divorce		1.00	
<b>Religion</b>			



Christianity	0.024	5.17	1.24-21.57
Muslim		1.00	
<b>Level of Education</b>			
NCE/HND	0.035	0.32	0.11-0.92
B.Sc and others		1.00	-

Table 7 shows that respondents that are 25 – 34years are 42 times more likely (OR= 41.64, C.I = 8.54- 203.16)to have good level of knowledge than those 55years and above, 35 - 44 are 4 times more likely (OR=4.19, C.I = 1.06 - 16.57) to have good level of knowledge than those 55years and above, Christians are five times more likely(OR=5.17, C.I= 1.24 - 21.57 ) to have good level of knowledge than Muslims and NCE/HND are 0.32 more likely (OR= 0.32, C.I = 0.11 - 0.92 ) to have a good knowledge than the B.SC and others.

**Table 8: Multivariate logistic regression association between sociodemographic variables and level of attitude**

	P	OR	95% C.I.for O.R
<b>Age</b>			
25-34 years	0.011	0.16	0.04-0.66
35-44 years	0.879	0.90	0.23-3.54
45-54 years	0.208	2.81	0.56-14.06
55 and above		1.00	
<b>Marital Status</b>			
Single	0.371	3.26	0.25-43.26
Married	0.798	0.73	0.06-8.28
Divorce		1.00	-



Tribe		-	
Bini	0.594	0.60	0.10-3.83
Igbo	0.974	1.04	0.12-9.14
Yoruba	0.777	0.69	0.05-9.10
Others		1.00	-
Level of Education			-
NCE/HND	0.530	1.45	0.46-4.61
B.Sc and others		1.00	-

Table 8 shows that those 25 – 34 years are 0.16 more likely (OR= 0.16, C.I = 0.04 - 0.66) to have positive attitude than those 55 years and above.

**Table 9: Multivariate logistic regression association between socio-demographic variables and level of uptake**

	p	O.R	95% C.I.for O.R	
			Lower	Upper
<b>Age</b>				
25-34 years	0.003	15.20	2.57	89.93
35-44 years	0.038	6.21	1.11	34.90
45-54 years	0.067	5.70	0.88	36.79
55 and above		1.00		
<b>Marital Status</b>				
Single	0.695	1.50	0.20	11.23
Married	0.003	18.82	2.67	132.75
Divorce		1.00		



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<b>Tribe</b>				
Bini	0.985	1.02	0.08	13.82
Igbo	0.129	0.11	0.01	1.91
Yoruba	0.793	1.57	0.05	45.43
Others		1.00		
<b>Level of education</b>				
NCE/HND	0.054	4.61	0.97	21.82
B.Sc and others		1.00		
Constant	0.235	0.16		

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Table 9 shows that those 25 – 34 years are 15 times more likely (OR=15.20, C.I= 2.57 - 89.93) to uptake the cervical cancer screening than those 55 years and above, those 35 – 44 years are six times more likely (OR= 6.21, C.I= 1.11 - 34.90) to uptake cervical cancer screening than those 55 years and above. Respondents that are married are 19 times more likely (OR=18.82, C.I = 2.67 - 132.75) to uptake the screening than those divorced.

## DISCUSSION

Finding from this study showed that majority of the respondents has a poor knowledge of cervical cancer screening and its importance. This finding is consistent with the findings reported in some Nigerian studies<sup>15,16</sup>. However, it is higher than 8.1% reported in Enugu<sup>17</sup> and lower than the level of knowledge of cervical cancer screening reported in Hawassa, Nepal, and Addis Ababa<sup>18,19,20</sup>. Furthermore, the level of good knowledge reported in the present study differ greatly from the ones reported in other Nigerian studies in Lagos and Benin City<sup>2,21</sup>.

The differences in the present study and that of other Nigerian studies as reported by Ehwarieme et al, and Tsegaye et al, may be attributed to the facts that their study population were mostly female medical students as against the present study whose participants are secondary school teachers and may lack of proper enlightenment both on the harmful effect of this cancer and how it can be prevented. The low knowledge of cervical cancer in this study may also be due to the fact that the information received from different sources were not detailed enough. Considering the age and





marital status of many of the teachers, possible unexploited opportunities at educating them may have occurred during antenatal and postnatal visits to the hospital, which if harnessed could make the hospital a common source of factual information. Majority of the respondents in the present study lack knowledge of risk factors for cervical cancer, did not have knowledge of categories of women eligible for cervical cancer screening and stages of cervical cancer that can be treated. All these suggest that they lack knowledge and basic information on cervical cancer screening as a core preventive measure of cervical cancer which of course if they had known could have been advantageous to the students under their tutelage and the society as a whole.

Female secondary school teachers are key to promotion of cervical cancer screening which is one of the preventive measures and early detection which could lead to cure of cervical cancer. This is so because they are like role models to the adolescents who at this time are sexually active and may exhibit negative youthful exuberance that are detrimental to them exposing them to various sexually transmitted diseases such as Human Papilloma Virus (HPV). If these teachers have good knowledge on cervical cancer screening and its importance, it will help them in providing valuable and correct information to the students who are in their custody and by extension preventing them from indulging in practices that will lead to contracting these dangerous diseases. Therefore, improving these teachers' comprehensive knowledge about cervical cancer and cervical cancer screening is expedient. Additionally, health care professionals need to increase the level of sensitization campaign and health education on cervical cancer and its screening to school not just for the students but also to the teachers who are always with the students.

Findings from the study have found out that there was a strong interplay between the knowledge and attitudes of cervical cancer, as overall majority of the respondents had negative attitude toward uptake of cervical cancer screening. This finding is in line with what was reported in Zimbabwe, Ethiopia, and Nigeria where there was generally a negative attitude to cervical cancer screening<sup>23,24, 25,26,27</sup>. However, findings from the present study is in contrast with findings of other Nigerian studies in Zaria and Lagos, where positive attitude towards to cervical cancer screening were reported<sup>28,29</sup>. Furthermore, a good majority of the respondents from the present study feels that it is not possible for a person to get cervical cancer therefore no need of going for screening, they also



feel that cervical cancer is hereditary and the screening is only undergone by those that have it in the family. In addition, large proportion of the respondents feels that cervical cancer affects only promiscuous women. Most of them also feel that the screening procedure is painful and that cervical cancer screening can affect female reproductive organ negatively. Fear of the results being positive was also expressed by majority of the respondents as they feel is better not knowing that one has cancer than knowing and leaving with the consciousness of the disease having been diagnosed through cervical cancer screening. All these feeling and perception of the respondents inform their negative attitude toward cervical cancer screening in the presented study. These assertions/perceptions that informs the attitude of the respondents in this study can be linked to the poor knowledge they had on cervical screening and its importance, which can be dissuaded by good comprehensive educational/enlightenment programmes on cervical cancer and its screening.

The findings of this study showed that only 10.5% of respondents had ever screened for cervical cancer, out of this 52.2% screen every five years which is the recommended screening routine. Pap smear and HPV testing were the most commonly mode of screening used. This finding corroborated the findings of studies conducted in Ilorin, Nigeria, Arba Minch and Ethiopia where uptake were reportedly low<sup>30,31,32</sup>. Nevertheless, the level of uptake reported in Benin City and Dares Salaam were higher than the reported level of uptake in the present study<sup>33,34</sup>. It could be inferred that the higher level of uptake reported in previous study may be due to the study population. For instance, the study in Benin City were among female medical students which as a result of their course of study are knowledgeable and aware of the consequences of not submitting oneself for screening. Also being young with high level of curiosity coupled with internet compliance and sophisticated phones in their possession is another advantage they have over the respondents in the present study in searching for information about their health. This assertion is confirmed by the multiple logistics regression analysis in the present study which show that respondents that are 25– 34years are 42 times more likely (OR= 41.64, C.I = 8.54- 203.16) to have good level of knowledge than those 55years and above. Also, those between 25–34 years are 0.16 more likely (OR= 0.16, C.I = 0.04 - 0.66) to have positive attitude that those 55 years and above, and those 25–34 years are 15 times more likely (OR=15.20, C.I= 2.57 - 89.93) to take to uptake of cervical cancer screening than those



55years and above. This suggests the reasons for the higher uptake in the study among the female students who are probably below or within this age range. These findings implies that better attitude, knowledge and uptake can be achieved among young adolescents than adults if they are followed up.

Partner disapproval received the highest mean among all the factors affecting cervical cancer screening uptake in the present study. Other are unavailability of screening center, not feeling at risk, being shy, lack of finance, misinterpretation from other colleagues/people, culture among others. This finding corroborated that conducted in Zaria, where several reasons were listed among whom fears of test were being positive and non-consent from husbands<sup>24</sup>. Also, the study in Dares Salaam revealed that lack of spousal support was responsible for low uptake hence the need to educate men on cervical cancer screening<sup>34</sup>. Similar finding was also reported in Ghana where fear of the screening procedure being painful and expensive were seen as part of the reason for the low utilization of cervical cancer screening<sup>35</sup>. Findings of the present study is also consistent with the findings in Kenya where there is a significant relationship between age ( $p=0.05$ ), women with insurance cover ( $p=0.00$ ) and income ( $p=0.01$ )<sup>36</sup>. However, these findings do not agree with the study conducted in Klang Valley where significant predictors of uptake of screening were being married, age, parity<sup>37</sup>.

Screening barriers at the individual level such as fear of positive result, low-risk perception, lack of test awareness, and reluctance to screen are worrisome to be observed among female teachers. Fear of positive result may emanate from either fatalistic beliefs that positive cervical cancer screening result equals to a death sentence or potential tagging due to perceived association of cervical cancer with promiscuity<sup>38,39,40</sup>. Also low cervical cancer risk perception among female teachers who felt they were not susceptible to the disease may precipitate ignorance or reluctance for the uptake. Consequently, cervical cancer may be detected among this group at advanced stages due to poor screening uptake leading to morbidity and mortality. Hence, it very pertinent that interventions should be geared towards this group with priorities on risk perception to improve cervical cancer screening.



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## **CONCLUSION**

This study was conducted at the right time when the country is planning to improve cervical cancer prevention and treatment services. Understanding and exploring uptake of cervical cancer screening service and its risk factors among female secondary school teachers in Nigeria is important to give some light to the broad efforts of preventing and treatment of cervical cancer. Findings from the study had shown that there is poor knowledge of cervical cancer screening, negative attitude and low uptake among female public secondary school in the study area. Factors such as partner disapproval, unavailability of screening center, lack of knowledge on cervical cancer screening, not feeling at risk and being shy among others were identified as affecting the uptake of cervical cancer screening. In order to promote uptake of cervical cancer screening and vaccination program among school-girls, health care providers such as nurses, physicians who are the front liners in this fight need to ensure that secondary school teachers have a proper understanding of cervical cancer screening and its importance. This is because if the secondary teachers are armed with the relevant knowledge and good attitude towards cervical cancer screening, they can be served as ambassadors in all the interventions geared towards cervical cancer screening that may involve the adolescent females in secondary schools who are in their custody.

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