*Original Research Article*

# UPTAKE OF CERVICAL CANCER SCREENING SERVICE AND ASSOCIATED FACTORS AMONG FEMALE CIVIL SERVANTS IN OYO STATE SECRETARIAT, IBADAN, NIGERIA.


## Abstract

Cervical cancer remains a leading cause of death among females in the developing country with poor prognosis attributed to lack of awareness about the disease and its prevention.

This study sought to assess the uptake of cervical cancer screening service and associated factors among female civil servants in Oyo State Secretariat, Ibadan, Nigeria.

A cross-sectional descriptive survey was carried out among 400 randomly selected female workers in Oyo State Secretariat in September 2023 using a self-administered questionnaire probing into basic demographic characteristics, uptake of cervical cancer screening service and associated factors. Variation of these parameters with socio-demographic characteristics were studied.

A total of 400 women aged between 25 to 46 and older participated in the survey. Data was analyzed using the Statistical Package for Social Sciences version 20.0. Descriptive statistics were conducted for all relevant data. The mean age was 30.5 (range from 16 to 72 years) and approximately two-thirds (46.25%) of the participants were aged 26 to 35 years. Majority of the respondents (63.5%) have already had cervical screening test but only 31.75% had performed a breast self-examination more than 2 years ago. 74.50% of the respondents had performed a breast self-examination and 22.50%, 23% and 32.25% had it in the last 2 months, 3 months and more than 3 months ago respectively.

This study found that the overall knowledge of risk factors for breast cancer and cervical cancer among women was low. Lack of cancer awareness, and lack of education in general, are the most potent barriers to access and care, and should be addressed through multi-faceted strategies including peer-education, mass media and other community-based interventions. Therefore, the burden of CC can be reduced if women are educated and health care providers challenged to recommend CCS and HPV vaccination

**Keywords:** Uptake, factors, cervical cancer, screening service. female civil servants State, Secretariat, Nigeria.

## 1. INTRODUCTION

Cervical cancer is the most occurring gynecological cancer ((Okunowo et al., 2018). Cervical cancer is a one of the exceedingly preventable predominant disease (Murfin et al., 2019). Cervical cancer is caused by human pappiloma virus especially 16/18 strain which is responsible for 70% of global cervical cancer incidence (Li et al., 2018). The risk for cervical cancer include having multiple sexual partner, having a family history of cervical cancer, women with low socioeconomic status, young age lesser than 20 at first full time pregnancy, long term use of oral contraceptive pills, infections such as chlamydia infections, having a weakened immune system, being sexually active at a young age lesser than 18 years (Li et al., 2018).

Cervical cancer (CC) is the most common gynaecological cancer. Ninety-nine percent of all cases are linked to infection with high-risk human papilloma viruses (HPVs) which may be transmitted through sexual contact (Ferlay et al., 2019). Cervical cancer ranks fourth among the common cancers in women worldwide; only breast, colorectal and lung cancers are more common (Arbyn et al., 2020).

Cervical cancer is one of the gravest threats to women's lives. Worldwide, currently, it is estimated that over a million women have cervical cancer. Most of these women have not been

diagnosed, nor do they have access to treatment that could cure them or prolong their lives (World Health Oranization, 2018). Cervical cancer is the fourth most common cancer in women, and seventh overall, with an estimated 528,000 new cases worldwide. Majority (around 85%) of the global burden occurs in the less developed regions.

Cervical cancer is the most occurring gynecological cancer (Okunowo et al., 2018). An estimate of 569,847 people was diagnosed of having cervical cancer in 2018 globally and 311,000 deaths were estimated (Bray et al., 2018). Cervical cancer is reportedly a major challenge in Sub-Saharan Africa as it accounts for about 70% of global cervical cancer cases in developing countries (Adamu et al., 2019; Mburu et al., 2019).

The incidence of cervical cancer is disproportionately increased in developing countries. In Nigeria, 53.3 million women are estimated to be at risk of developing cervical cancer with a national standardized prevalence rate of 33.0 per 100,000 (Ilevbare et al., 2020). In Nigeria, 70, 327 deaths in women were attributed to cancer, with cervical cancer causing 14.8% of those deaths in 2018, making it the second most common cancer after breast cancer (World Health Organization, Nigeria Fact Sheet: Globocan 2018).

Cervical cancer is caused by human pappiloma virus especially 16 of 18 strains which is responsible for 70% of global cervical cancer incidence (Li et al., 2018). The risk for cervical cancer include having multiple sexual partner, having a family history of cervical cancer, women with low socioeconomic status, young age lesser than 20 at first full time pregnancy, long term use of oral contraceptive pills, infections such as chlamydia infections, having a weakened immune system, being sexually active at a young age lesser than 18 years (Li et al., 2018).In Nigeria, most of the women were not aware that cervical cancer can be prevented and controlled, the worrisome scenario is that educated women that are government workers were not exempted from this ugly situation.In order to address these gaps, this study is set to assess the uptake of

cervical cancer screening service and associated factors among female civil servants in Oyo State Secretariat, Ibadan, Nigeria

### 1.1 Main Objective

The broad objective of the study was to assess the uptake of cervical cancer screening service and associated factors among female civil servants in Oyo State Secretariat, Ibadan, Nigeria.

### 1.2 Specific Objectives

The specific objectives of the study were to:

1. Assess the knowledge of cervical cancer among female civil servants in Oyo State secretariat.

2. Assess the level of awareness on cervical cancer screening services among representative sample of population under study

3. Determine the attitude of the of the women towards cervical cancer screening

4. Determine their uptake of cervical screening

5. Determine the factors influencing uptake of cervical cancer screening among the female civil servants in the study setting

6. Identify strategies that can promote uptake of cervical screening service uptake among the study's participants

### 1.3 Research Questions

This study was conducted to answer the following questions:

1. What is the level of awareness regarding uptake of cervical cancer screening services among female civil servants in Oyo State secretariat?

2. What are the determinants of knowledge of cervical cancer in the representative sample of population under study?

3. What is the uptake of cervical screening among the representative sample of respondents' understudy?

4. What are those factors influencing uptake of cervical cancer screening among the female civil servants in the study setting?

5. What strategies can promote uptake of cervical screening service uptake among the study's participants?

### 1.4 Research Hypotheses

The following null Hypotheses (HO) were proposed:

1. There is no significant association between the level of awareness and uptake of cervical cancer screening.

2. There is no significant association between of knowledge of cervical cancer and uptake of cervical cancer screening.



## 2. MATERIALS AND METHODS

### 2.1 The Study area

Ibadan is the capital city of Oyo State, Nigeria. It was founded in the early 19th century by fleeing refugees from the old Oyo Empire, following Fulani invasion of Yoruba land. Ibadan is designated as largest city in the West Africa and the most populous in Black Africa. It is mainly inhabited by the Oyo –a Yoruba sub-group with an estimated population of 1,829,187, the study area, is one of the five (5) that were carved out of the former Ibadan Municipal Government (IMG) in 1991 by the then Federal Military Government. Its headquarters stood at Agodi in Ibadan. The postal code of the area is 200 and has an area of 27 km² and a population of 856,988 according to the Oyo State Government in 2017. It also has bustling academic and economy activities with the presence of the First Premier University in Nigeria, the University of Ibadan, founded in 1948, and The Polytechnic, Ibadan in 1970 creates an aura of lively place to live in.

Agodi secretariat is the seat of all administrative activities in the state and this secretariat housed most of the ministries, parastatal and agencies with an average population of eleven thousand four hundred eighty (11,480) (workers (male-7,324, female-4,156) three thousand two hundred and sixty (3,260) of whom were women of reproductive age while the remaining eight hundred ninety-six (896) are non-reproductive age



**Table 1: LIST OF MINISTRIES/DEPARTMENTS AND AGENCIES IN OYO STATE SECRETARIAT, AGODI, IBADAN. OYO STATE**

| S/N | NAMES OF MINISTRIES/DEPARTMENTS/PARASTATALS, AND AGENCIES | FEMALE STAFF | MALE STAFF | TOTAL |
|---|---|---|---|---|
| A | **MINISTRIES** | | | |
| 1 | MINISTRY OF AGRICULTURE, NATURAL RESOURCES AND RURAL DEVELOPMENT | 234 | 1226 | 1460 |
| 2 | MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY | 567 | 1345 | 1912 |
| 3 | MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES | 34 | 67 | 101 |
| 4 | MINISTRY OF FINANCE | 43 | 89 | 132 |
| 5 | MINISTRY OF HEALTH | 1234 | 734 | 1968 |
| 6 | MINISTRY OF JUSTICE | 31 | 67 | 98 |
| 7 | MINISTRY OF INFORMATION AND MASS MOBILIZATION | 123 | 453 | 576 |
| 8 | MINISTRY OF LANDS, HOUSING AND SURVEY | 54 | 89 | 143 |
| 9 | MINISTRY OF LOCAL GOVERNMENTS AND CHIEFTAINCY MATTERS | 93 | 132 | 225 |
| 10 | MINISTRY OF SPECIAL DUTIES | 23 | 65 | 88 |
| 11 | MINISTRY OF INVESTMENT, TRADE AND INDUSTRIES | 43 | 76 | 119 |
| 12 | MINISTRY OF PUBLIC WORKS, INFRASTRUCTURE AND TRANSPORTATION | 56 | 234 | 290 |
| 13 | MINISTRY OF WOMEN AFFAIRS AND SOCIAL INCLUSION | 123 | 32 | 155 |
| 14 | MINISTRY OF YOUTH AND SPORTS | 54 | 157 | 211 |
| 15 | MINISTRY OF BUDGET AND ECONOMIC PLANNING | 34 | 78 | 112 |
| 16 | MINISTRY OF ESTABLISHMENTS AND TRAINING | 36 | 87 | 123 |
| 17 | MINISTRY OF ENERGY AND MINERAL RESOURCES | 21 | 57 | 78 |
| B | **DEPARTMENTS** | | | |
| 18 | OFFICE OF THE HEAD OF SERVICE | 23 | 36 | 59 |
| 19 | OFFICE OF THE ACCOUNTANT-GENERAL | 32 | 56 | 88 |
| 20 | OFFICE OF THE AUDITOR-GENERAL FOR STATE | 24 | 39 | 63 |
| 21 | OFFICE OF THE AUDITOR-GENERAL FOR LOCAL GOVERNMENTS | 18 | 31 | 49 |
| 22 | BOARD OF INTERNAL REVENUE (BIR) | 42 | 38 | 80 |
| 23 | OFFICE OF THE STATE SURVEYOR-GENERAL | 25 | 43 | 68 |
| 24 | CIVIL SERVICE COMMISSION (CSC) | 35 | 65 | 100 |
| C | **AGENCIES** | | | |
| 25 | OYO STATE SIGNAGE AND ADVERTISEMENT AGE | 18 | 34 | 52 |
| 26 | STATE SERVICES AND SECURITY DEPARTMENT | 09 | 23 | 32 |
| 27 | OYO STATE EMERGENCY MANAGEMENT AGENCY | 26 | 43 | 69 |

| | | | | |
|---|---|---|---|---|
| 28 | OYO STATE HOUSE OF ASSEMBLY SERVICE COMMISSION | 32 | 53 | 85 |
| 29 | OYO STATE PUBLIC WORKFARE | 21 | 32 | 53 |
| 30 | OYO STATE TEACHING SERVICE COMMISSION (TESCOM) | 56 | 154 | 210 |
| 31 | OYO STATE HOSPITALS MANAGEMENT BOARD (OYSHMB) | 123 | 76 | 199 |
| 32 | OYO STATE LIBRARY BOARD | 19 | 32 | 51 |
| 33 | OYO STATE UNIVERSAL BASIC EDUCATION BOARD | 34 | 67 | 101 |
| 34 | OYO STATE INDEPENDENT ELECTORAL COMMISSION (OYSIEC) | 18 | 32 | 50 |
| 35 | OYO STATE COUNCIL FOR ARTS & CULTURE | 21 | 35 | 56 |
| 36 | OYO STATE SPORTS COUNCIL (OYSSC) | 23 | 45 | 68 |
| 37 | OYO STATE GOVERNMENT PRINTING PRESS | 18 | 56 | 74 |
| 38 | BUREAU OF INVESTMENT PROMOTION | 16 | 32 | 48 |
| 39 | OYO STATE RURAL ELECTRIFICATION BOARD (OYSREB) | 15 | 31 | 46 |
| 40 | BOARD FOR TECHNICAL & VOCATIONAL EDUCATION (BOTAVED) | 12 | 23 | 35 |
| 41 | OYO STATE FIRE SERVICE | 24 | 45 | 69 |
| 42 | OYO STATE SOLID WASTE MANAGEMENT AGENCY | 23 | 67 | 90 |
| 43 | OYO STATE PENSION BOARD | 18 | 45 | 63 |
| 44 | SIMEON ADEBO STAFF DEVELOPMENT CENTRE (SASDC) | 13 | 32 | 45 |
| 45 | OYO STATE LOCAL GOVERNMENT COMMISSION | 24 | 46 | 70 |
| 46 | OYO STATE AGRICULTURAL DEVELOPMENT AGENCY (OYSADA) | 23 | 43 | 66 |
| 47 | BUREAU OF PUBLIC PROCUREMENT | 13 | 32 | 45 |
| 48 | OYO STATE AGENCY FOR ADULT & NON-FORMAL EDUCATION | 18 | 25 | 43 |
| 49 | OYO STATE SCHOLARSHIP BOARD | 12 | 27 | 39 |
| 50 | OYO STATE AGENCY FOR YOUTH DEVELOPMENT (AYD) | 17 | 24 | 41 |
| 51 | OYO STATE RURAL WATER SUPPLY AND SANITATION AGENCY | 19 | 29 | 48 |
| 52 | OYO STATE DIASPORANS | 11 | 23 | 34 |
| 53 | OYO STATE HOUSING CORPORATION | 34 | 76 | 110 |
| 54 | SHOOTING STARS SPORTS CLUB | 13 | 34 | 47 |
| 55 | OYO STATE AGENCY FOR THE CONTROL OF AIDS (OYSACA) | 18 | 32 | 50 |
| 56 | WATER CORPORATION OF OYO STATE (WCOS) | 23 | 35 | 58 |
| 57 | BROADCASTING CORPORATION OF OYO STATE | 72 | 89 | 161 |
| 58 | PACEESETTER MICRO-FINANCE INSTITUTION | 11 | 32 | 43 |
| 59 | OYO STATE COMMUNITY AND SOCIAL DEVELOPMENT AGENCY (CSDA) | 23 | 33 | 56 |

| | | | | |
|---|---|---|---|---|
| 60 | LOCAL GOVERNMENT PENSION BOARD (LGPB) | 27 | 56 | 83 |
| 61 | OYO STATE MEDIATION CENTRE | 11 | 21 | 32 |
| 62 | OYO STATE PLANNING COMMISSION | 18 | 21 | 39 |
| 63 | OYO STATE AGRICULTURAL CREDIT CORPORATION (ACCOS) | 23 | 45 | 68 |
| 64 | OYO STATE ROAD TRAFFIC MANAGEMENT AUTHORITY (OYRTMA) | 46 | 77 | 123 |
| 65 | SOLID MINERALS DEVELOPMENT AGENCY | 18 | 34 | 52 |
| 66 | STATE OPERATION COORDINATING UNIT | 11 | 23 | 34 |
| 67 | SUSTAINABLE DEVELOPMENT GOALS UNIT | 08 | 13 | 21 |
| 68 | PILGRIMS WELFARE BOARD (CHRISTIAN WING) | 13 | 23 | 36 |
| 69 | PILGRIMS WELFARE BOARD (MUSLIM WING) | 11 | 20 | 31 |
| 70 | OYO STATE PUBLIC CORPORATION COMMISSION | 19 | 23 | 42 |
| 71 | OYO STATE BUREAU OF STATISTICS | 13 | 25 | 38 |
| 72 | OYO STATE HEALTH INSURANCE AGENCY | 29 | 56 | 85 |
| 73 | OYO STATE EDUCATION TRUST FUND | 18 | 28 | 46 |
| 74 | BUREAU OF PHYSICAL PLANNING & DEVELOPMENT CONTROL | 19 | 26 | 45 |
| | **TOTAL** | **4,156** | **7,324** | **11,480** |

Based on the sample size calculated (600) above, that 600 questionnaires would be spread across the 74 ministries, departments and agencies identified above

**Sampling Technique**

The sample size of 600 were determined using the Taro Yamane formula for descriptive studies. A multistage sampling method would be used to select respondents. The first stage involved selection of three thousand two hundred and sixty (3,260) out of the total number of four thousand one hundred fifty-six (4,156) that happened to be female workers in the secretariat. The second stage involved the use of systematic sampling to select six hundred (600) on each of these female workers (4,156) until the desired number of respondents (600) were met. Where there were more than one eligible female workers in a ministry/department/agency, the respondent wereselected by balloting. Data was collected using pretest, interviewer administered questionnaires. The questionnaires were administered by three trained female research assistants

with a minimum of post-secondary school qualification. Data analysis was done with SPSS 20 software. Frequency tables were made for categorical variables.

This study adopted a multi stage sampling technique that comprises of the following steps:

Step 1: Oyo State Secretariat was stratified into its ministries, departments and agencies using stratified sampling technique and the numbers of the female workers were obtained in each ministry, department and agency (as shown in table 1), compiled and calculated.

Step 2: A Simple random sampling technique was used to select eligible participants based on predefined criteria.

**2.2 Target population**

The populations for this study were women of reproductive age working in the Oyo State Secretariat, Ibadan. Which was three thousand two hundred and sixty (3,260). A structured questionnaire that comprises open- and closed-ended questions were used for data collection. The reliability of the instrument was tested using Cronbach's alpha. The reliability coefficient (r) is= 0.7. Ethical approval was seek from Oyo State Ethics Committee; data was then collect from the select health women of reproductive age working in the secretariat after duly obtaining an informed consent from each of the respondents.

2.3 **Sample Size Determination**

Calculation and Sampling procedure

Sample Size Calculation

This study utilized the Taro Yamane formula for calculating sample of a known population using the sample size equation

$$n = \frac{\mathrm{N}}{1 + N\,(e)^2}$$

Where n = Sample size N= Size of population, e = assumed error of 0.05

Sample size (n) = $\frac{3260}{1+3260\ (0.05)^2}$= 356

Adjusting sample size for 10% attrition: $nf = \frac{\text{n}}{1-Nr}$

$nf = \frac{356}{1-10}$ =$nf = \frac{356}{0.9}$ =396

By approximating to the nearest whole number, a total of 400 women was utilized for the study.

2.4**Data Collection Methods and Analysis**

Data collection was carried out on September 2023. A description of the processes involved in data collection for this study is provided below.Each of the ministries/department/agencies were visited daily by two research assistants. Research assistants was set out early in the morning and approach the female workers of the ministry/department/agency to explain purpose and obtain written consent from them before the commencement of the study. In situations where neither was around, repeat visits were made as nobody is qualifying to give the needed information beside the female working in the ministry/department/agency. A coding guide was developed to facilitate coding and data entry into the computer. The investigator checked all the administered questionnaire copies one by one and edit them where necessary. Each questionnaire copy was coded and entered into a password protected computer, made only assessable to the research team. Data analysis was undertaken in SPSS software version 25 using descriptive and inferential statistics. The descriptive data entailed computing the (mean, median or mode). To determine the association between variables and test the hypotheses, percentage of the responses in support and against were calculated. Finally, information obtained were summarized and presented in tables.

## 3.0 RESULTS AND DISCUSSION

### 3.1 Introduction

This chapter presents the analysis and presentation of results both in tables and raw data in SPSS

**Table 2: Socio-demographic characteristics of study participants (n = 400)**

| | Frequency | Percentage (%) |
|---|---|---|
| **Age** | | |
| <25 | 145 | 36.25 |
| 26-30 | 87 | 21.75 |
| 31-35 | 98 | 24.50 |
| 36-40 | 45 | 11.25 |
| 41-45 | 19 | 4.75 |
| $46^{+}$ | 6 | 1.50 |
| **Marital Status** | | |
| Single | 178 | 44.50 |
| Married | 222 | 55.50 |
| **Position** | | |
| Permanent Staff | 309 | 77.25 |
| Temporary Staff | 91 | 22.75 |
| **Educational Level** | | |
| Tertiary Education | 346 | 86.50 |
| Secondary Education | 54 | 13.50 |
| **Religion** | | |
| Christianity | 278 | 69.50 |
| Islam | 122 | 30.50 |
| **Years of work experiences** | | |
| 1-5 | 287 | 71.75 |
| 6-10 | 76 | 19 |
| 11-15 | - | - |
| 16-20 | 24 | 6 |
| 21-25 | 7 | 1.75 |
| 26-30 | 6 | 1.5 |



**Socio-demographic characteristics**

The median age of the study participants was 30.5 (range 16 to 72 years) and approximately two-thirds (46.25%) of the participants were aged 26 to 35 years (Table 2). The majority of the participants were married (55.5%) and 45.5% identified as single. 13.5% of the participants had a

secondary level of education while 86.5% were tertiary education graduates. Larger percentage (89.5%) of the participants were identified as Christians.

**Table 3 General knowledge of cervical cancer and uptake of screening**

| Variables (n=400) | Category | Frequency | Percentage (%) |
|---|---|---|---|
| Have you ever had a cervical cancer screening test | Yes | 254 | 63.50 |
| | No | 146 | 36.50 |
| When was the last time that you performed a breast self-examination | In the last 12 months | 89 | 22.25 |
| | In the last 18 months | 91 | 22.75 |
| | In the last 2 years | 93 | 23.25 |
| | More than 2 years ago | 127 | 31.75 |
| How often do you have cervical cancer screening test | Every 12 months | 87 | 21.75 |
| | Every 18 months | 92 | 23 |
| | Every 2 years | 95 | 23.75 |
| | Less frequently than every 2 years | 126 | 31.5 |
| Have you ever performed a breast self-examination | Yes | 298 | 74.50 |
| | No | 102 | 23.50 |
| When was the last time that you performed a breast self-examination? | In the last month | 89 | 22.25 |
| | In the last 2 months | 90 | 22.50 |
| | In the last 3 months | 92 | 23 |
| | More than 3 months ago | 129 | 32.25 |
| How often do you perform a breast self-examination? | Every month | 86 | 21.50 |
| | Every 2 months | 93 | 23.25 |
| | Every 3 months | 98 | 24.50 |
| | Less frequently than every 3 months | 123 | 30.75 |
| Healthy adult women should have cervical cancer screening test every two years | Yes | 376 | 94 |
| | No | 24 | 6 |
| Cervical cancer screening tests are not important for a woman at my age. | Yes | 256 | 64 |
| | No | 144 | 36 |
| Only women who have had many sexual partners need to have cervical cancer screening test | Yes | 167 | 41.75 |
| | No | 233 | 58.25 |
| The purpose of | Yes | 385 | 96.25 |

| | | | |
|---|---|---|---|
| cervical cancer screening test is to detect early signs of cervical cancer. | No | 15 | 3.75 |
| Cervical cancer screening tests are necessary even if there is no family history of cancer. | Yes | 385 | 96.25 |
| | No | 15 | 3.75 |
| The purpose of regular breast self-examinations is to detect potentially cancerous breast lumps. | Yes | 385 | 96.25 |
| | No | 15 | 3.75 |
| Healthy breasts should have no lumps in them at all. | Yes | 385 | 96.25 |
| | No | 15 | 3.75 |
| Breast examinations by a doctor are unnecessary if I am performing breast self-examinations regularly | Yes | 345 | 86.25 |
| | No | 55 | 13.75 |
| All women of child-bearing ages should do cervical cancer screening test | Agree | 246 | 61.50 |
| | Neutral | 30 | 7.50 |
| | Disagree | 124 | 31 |
| Cervical cancer screening test is safe | Agree | 276 | 69 |
| | Neutral | 62 | 15.50 |
| | Disagree | 62 | 15.50 |
| Cervical cancer is common in Nigeria | Agree | 96 | 24 |
| | Neutral | 26 | 6.50 |
| | Disagree | 278 | 69.50 |
| I have enough information about cervical cancer to guide my pupils | Agree | 30 | 7.50 |
| | Neutral | 120 | 30 |
| | Disagree | 250 | 62.50 |
| I would like to know more about the cervical cancer | Agree | 278 | 69.50 |
| | Neutral | 24 | 6 |
| | Disagree | 98 | 24.50 |
| All women should get education about cervical cancer | Agree | 389 | 97.25 |
| | Neutral | 11 | 2.75 |
| | Disagree | - | |
| In your own view do you think cervical cancer screening test should be performing on all women | Yes | 378 | 94.50 |
| | No | 22 | 5.50 |

| | | | |
|---|---|---|---|
| working in Oyo State secretariat | | | |
| What in your opinion hindered the cervical cancer screening test on all women working in Oyo State secretariat | Lack of information | 234 | 58.50 |
| | Financial constraint | 56 | 14 |
| | No Hospital | 108 | 27 |
| | No time and chance | 2 | 0.5 |
| | Ignorant | | |
| What do you think can be done to improve the cervical cancer screening test | More education and awareness on cervical cancer test | 243 | 60.75 |
| | The test should be more accessible | 98 | 24.50 |
| | Free working day to do the test | 42 | 10.50 |
| | Make it compulsory | 17 | 4.25 |

**Knowledge of cervical cancer and uptake of screeningamong female workers in Oyo State Secretariat, Ibadan**

Majority of the respondents (63.5%) have already had cervical screening test but only 31.75% had performed a breast self-examination more than 2 years ago. 74.50% of the respondents had performed a breast self-examination and 22.50%, 23% and 32.25% had it in the last 2 months, 3 months and more than 3 months ago. 94% of the respondents believed that healthy adult women should have cervical cancer screening test every two years, 64% of the respondents believed that cervical cancer screening tests are not important for a woman at their age, 41.75% of the respondents ascertained that only women who have had many sexual partners need to have cervical cancer screening test, 96.75% believed that the purpose of cervical cancer screening test is to detect early signs of cervical cancer, cervical cancer screening tests are necessary even if there is no family history of cancer, the purpose of regular breast self-examinations is to detect potentially cancerous breast lumps and Healthy breasts should have no lumps in them at all respectively.

Also 61.50%, 69%, 24%, 7.50%, 69.50% and 97.25% of the respondents agreed that all women of child-bearing ages should do cervical cancer screening test, cervical cancer screening test is safe, cervical cancer is common in Nigeria, having enough information about cervical cancer to guide my pupils, knowing more about the cervical cancer and all women should get education about cervical cancer respectively. 94.50% of the respondents believed that cervical cancer screening test should be performing on all women working in Oyo State secretariat, 58.50% of the respondents believed that lack of information hindered the cervical cancer screening test on all women working in Oyo State secretariat and lastly 60.75% of the respondents believed that more education and awareness about cervical cancer screening test will improve the cervical cancer screening test. Therefore, from the table above, it was revealed that lack of cancer awareness, and lack of education in general are the most determinants of knowledge of cervical cancer in the representative sample of population under study which answer research question 2.

**Table 4 Level of awareness of cervical cancer screening services**

| **Variables (n=400)** | **Yes (%)** | **No (%)** |
|---|---|---|
| Cervical cancer screening service available within my reach? | 124(31) | 276(69) |
| Most hospitals/clinics does not have cervical cancer screening services? | 306(76.5) | 94(23.5) |
| Most women of reproductive ages feared cervical cancer screening service therefore they distance themselves from it | 388(97) | 12(3) |
| Most of their husbands does not encourage their wives to seek knowledge about cervical cancer screening services | 346(86.5) | 54(13.5) |
| The little knowledge and awareness most women have about cervical cancer screening services are not enough | 346(86.5) | 54(13.5) |

**The associated factors with the level of awareness of cervical cancer screening services among female workers in Oyo State Secretariat, Ibadan**

Analysis of our result found that 69% and 76.5% of the respondents said that cervical cancer screening service were not available within my reach and most hospitals/clinics does not have cervical cancer screening services respectively. Also 97% of the respondents believed that most women of reproductive ages feared cervical cancer screening service and that made them to distance themselves from it.86.5% of the respondents believed that most of their husbands does not encourage their wives to seek knowledge about cervical cancer screening services and the little knowledge and awareness most women have about cervical cancer screening services are not enough. Therefore, this answer the research question 1 that the level of awareness regarding uptake of cervical cancer screening services is very low among female civil servants in Oyo State secretariat as majority of the respondents said that cervical cancer screening service were not available within their reach and most hospitals/clinics does not have cervical cancer screening services. Also most women of reproductive ages feared cervical cancer screening service and their husbands does not encourage them to seek knowledge about cervical cancer screening services.

**Table 5 Attitude towards cervical cancer screening services**

| **Variables (n=20)** | **Yes (%)** | **No (%)** |
|---|---|---|
| My chances of getting cervical cancer if I attended cervical cancer screening services in the next few years are high. | 348 (87) | 52(13) |
| I feel I will get cervical cancer some time during my life if I attended cervical cancer screening services | 348 (87) | 52 (13) |

| | | |
|---|---|---|
| The thought of cervical cancer scares me therefore I don't want to attend any cervical cancer screening services | 388 (97) | 12 (3) |
| Cervical cancer would threaten a relationship with my husband if I attended cervical cancer screening services | 348 (87) | 52 (13) |
| Having cervical exams takes too much time | 348 (87) | 52(13) |
| Having cervical exams is too painful. | 388 (97) | 12 (3) |
| Health care workers doing cervical exams are rude to women. | 246(61.5) | 54 (38.5) |
| I have other problems more important than attending cervical cancer screening services in my life. | 270(67.5) | 30(32.5) |
| I will never have cervical exams if I have to pay for it. | 388 (97) | 12 (3) |
| I would be ashamed to lie on a gynecologic examination table and show my private parts to have a cervical exam. | 388 (97) | 12 (3) |

**Attitude towards cervical cancer screening services among female workers in Oyo State Secretariat, Ibadan**

Analysis of our results in Table 5 revealed that 87% of the respondents said that their chances of getting cervical cancer if they attended cervical cancer screening services in the next few years are high, feel they will get cervical cancer some time during their life if they attended cervical cancer screening services, cervical cancer would threaten a relationship with their husband if they attended cervical cancer screening services and having cervical exams takes too much of their time. Lastly 97% of the respondents said that the thought of cervical cancer scares me therefore they don't want to attend any cervical cancer screening services, having cervical exams is too painful, they will never have cervical exams if they have to pay for it and they would be

ashamed to lie down on a gynecologic examination table and show their private parts to have a cervical exam respectively.

**Table 6 Uptake of cervical cancer screening services**

| Variables (n=400) | Yes (%) | No (%) |
|---|---|---|
| Most women of reproductive ages does not undergo cervical cancer screening service | 275 (68.75) | 125 (31.25) |
| Uptake of cervical cancer screening services scared most women | 388 (97) | 12 (3) |
| Uptake of cervical cancer screening services is not compulsory in most hospital/clinic | 388 (97) | 12 (3) |
| Most of their husbands does not encourage their wives to undertake cervical cancer screening services | 388 (97) | 12 (3) |
| Lack of knowledge and awareness most women have about cervical cancer screening services prevented them from undertake it | 388 (97) | 12 (3) |

**Uptake of cervical cancer screening services among female workers in Oyo State Secretariat, Ibadan**

Analysis of our result found that 68.75%of the respondents said that most women of reproductive ages does not undergo cervical cancer screening service and 97% of the respondents believed that uptake of cervical cancer screening services scared most women, uptake of cervical cancer screening services is not compulsory in most hospital/clinic, most of their husbands does not encourage their wives to undertake cervical cancer screening services and lack of knowledge and awareness most women have about cervical cancer screening

services prevented them from undertake it . Therefore, update of cancer screening services among female workers in Oyo State Secretariat are very poor and that answer research question 3

.

**Table 7 Factors influencing uptake of cervical cancer screening services**

| **Variables (n=400)** | **Yes (%)** | **No (%)** |
|---|---|---|
| Most women of reproductive ages were not aware about cervical cancer | 290 (72.5) | 110 (27.5) |
| Most hospitals/clinics does not have expertise on cervical cancer | 388 (97) | 12 (3) |
| Most women of reproductive ages feared cervical cancer therefore they don't want to hear anything about it | 388 (97) | 12 (3) |
| Most of their husbands does not encourage their wives to seek knowledge about cervical cancer | 388 (97) | 12 (3) |
| The little knowledge and awareness most women have about cervical cancer is not enough | 388 (97) | 12 (3) |

**Factors influencing uptake of cervical cancer screening services among female workers in Oyo State Secretariat, Ibadan**

Analysis of the results revealed in Table 7 that 72.5%of the respondents said that most women of reproductive ages were not aware about cervical cancer and 97% of the respondents believed that most hospitals/clinics does not have expertise on cervical cancer, most women of reproductive ages feared cervical cancer therefore they don't want to hear anything about it, most of their husbands does not encourage their wives to seek knowledge about cervical cancer and the little

knowledge and awareness most women have about cervical cancer is not enough. Therefore, majority of factors that influencing update of cervical cancer screening services were not adequately observed and that answers research question 4.

**Table 8 Strategies promoting uptake of cervical screening services**

| **Variables (n=400)** | **Yes (%)** | **No (%)** |
|---|---|---|
| Introduction of awareness and knowledge of cervical cancer in Nigeria educational system | 290 (72.5) | 110 (27.5) |
| Most hospitals/clinics must have expertise on cervical cancer | 388 (97) | 12 (3) |
| Most women of reproductive ages should be educated about cervical cancer screening services | 388 (97) | 12 (3) |
| Husbands should encourage and support their wives to attend cervical cancer screening services regularly | 388 (97) | 12 (3) |
| Cervical cancer screening services progress report must be included in marriage counselling requirement | 388 (97) | 12 (3) |

**Strategies promoting uptake of cervical screening services among female workers in Oyo State Secretariat, Ibadan**

Analysis of the results revealed in Table 8 that 72.5%of the respondents said that introduction of awareness and knowledge of cervical cancer in Nigeria educational system is one of the strategies that promoting uptake of cervical cancer services in Oyo State Secretariat, Ibadan.

97% of the respondents believed that most hospitals/clinics must have expertise on cervical cancer, most women of reproductive ages should be educated about cervical cancer screening services, husbands should encourage and support their wives to attend cervical cancer screening services regularly and cervical cancer screening services progress report must be included in marriage counselling requirement. In the research work, it was revealed that most of the strategies that can promote uptake of cervical screening service uptake among the study's participants were not adequately captured and that answers research question 5.

In a nut shell, the null hypothesis that says there is no significant association between the level of awareness and knowledge and uptake of cervical cancer screening would be rejected and accept alternative hypothesis ($H_A$) that says there is significant association between the level of awareness and knowledge and uptake of cervical cancer screening.

## 4.0 CONCLUSION AND SUMMARY

Most women in the developing world are at a considerable risk of developing cervical cancer because the prevalence high risk of sexual behavior (Ayinde et al (2017). The situation is further worsened by the fact that many of these women are poorly informed about the disease and its prevention (Center for Disease Control and Prevention 2018).

Our study confirmed that the practice of cervical screening in Oyo State Secretariat among female workers is low. The overall women that had performed breast self-examination more than 2 years ago and in the last 2 months ago were 23.25% and 22.5% respectively. Age, educational status, knowing someone diagnosed with cervical cancer, sources of information from health professionals were predictors of knowledge of cervical cancer screening. Marital status, monthly income, and good knowledge were significant predictors of attitude towards cervical cancer screening. The level of knowledge of cervical cancer screening of women working in Oyo State

Secretariat of this study was 63.5%. This ding was comparable with the research done in Dessie referral hospital and Dessie health Center, northeast Ethiopia, which was 44.2%[6]. It was congruent with the survey done in Kathmandu Nepal which was 61% but slightly higher than a similar study in Northwest Ethiopia, Gabon, Tanzania (Getahun et al 2018). This could be due to the variation in study setting

Also, in the study age and marital status were fought to be important factor of determinant knowledge, awareness and attitude of cervical cancer screening test. Single women and those under age of 30 years are less likely to know about the cervical cancer and screening test. Also, they are less likely to make themselves available for the cervical cancer screening test. These were similar to study carried out in Australia (Siahpush et al 2018). The level of education was fought to determine the awareness of the cervical cancer. This was at variance with the findings of Skaer et al in which higher levels of education had positive influence of the use of pap smear (Skaer et al 2018).

## 5.0 RECOMMENDATION

In general, the following recommendation need to be adhere to;

1. the need for more intensive awareness campaign and well organized screening programmes among female civil servants in Oyo State Secretariat and the rest of the female population cannot be over emphasized.
2. More efforts are particularly needed in reaching the identified categories of the women who are less likely to have knowledge of cervical cancer and screening test.
3. Health education and awareness creation regarding cervical cancer should be implemented at primary health care units and clinics in the secretariat

4. Finally, further study is recommended at the community level, including a qualitative component.

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## APPENDIX

## QUESTIONNAIRE

**STUDY TITLE: Uptake of cervical cancer screening service and associated factors among female civil servants in Oyo State Secretariat, Ibadan, Nigeria.**

The following questions are focused on some of your behaviours. Please answer each of the following questions by circling the answer which best describes you. Your responses will be kept in the utmost confidence. There are no right or wrong answers.

### A. DEMOGRAPHICS:

Please fill in the following information about yourself:

1. What is your age in years? _____

2. Sex: Male □ Female □

3. Position: Permanent staff □ Casual staff □ Temporary staff □ Other (specify): _

4. Educational level: Primary education □ Secondary education □ Tertiary education □ Others □

5. How many years of work experience have you? _____ years

6. What is your religion? Christianity □ Islam □ Traditional □ Others (specify): _____

7. What is your marital status? Single □ Married □ Divorced □ Other (specify): ____

### B. GENERAL KNOWLEDGE ON CERVICAL CANCER AND UPTAKE OF SCREENING:

Below are some statements concerning general information about cervical cancer screening. Please read each statement carefully. Once you have read it, indicate whether you agree or disagree with the statement by picking or circling YES/TRUE for those you agree with, and NO/FALSE for those you disagree with.

8. Have you ever had a cervical cancer screening test? Cervical cancer screening is the mandatory screening test undergo by person suffering from cervical cancer periodically in order

to know her health status as far as cancer is concerned □Yes □ No
If you answered NO, skip to question 11. If you answered YES, proceed to question 9.

9. When was the last time that you had a cervical cancer screening test?
a. In the last 12 months
b. In the last 18 months
c. In the last 2 years
d. More than 2 years ago
10. How often do you have cervical cancer screening test?
a. Every 12 months
b. Every 18 months
c. Every 2 years
d. Less frequently than every 2 years
11. Have you ever performed a breast self-examination? Breast self-examination is the use of your hands to examine your breasts for lumps or other abnormal tissue. □ Yes□ No
If you answered NO, skip to question 14. If you answered YES, proceed to question 12.
12. When was the last time that you performed a breast self-examination?
a. In the last month
b. In the last 2 months
c. In the last 3 months
d. More than 3 months ago
13. How often do you perform a breast self-examination?
a. Every month
b. Every 2 months
c. Every 3 months
d. Less frequently than every 3 months
14. Healthy adult women should have cervical cancer screening test every two years.

True False
15. Cervical cancer screening tests are not important for a woman at my age. True False
16. Only women who have had many sexual partners need to have cervical cancer screening test.
True False
17. The purpose of cervical cancer screening test is to detect early signs of cervical cancer.
True False
18. cervical cancer screening tests are necessary even if there is no family history of cancer.
True False
19. The purpose of regular breast self-examinations is to detect potentially cancerous breast lumps. True False
20. Healthy breasts should have no lumps in them at all. True False
21. Breast examinations by a doctor are unnecessary if I am performing breast self-examinations regularly. True False

For the following section, please indicate whether you agree or disagree with the statement:

| | Agree | Neutral | Disagree |
|---|---|---|---|
| 22. All women of child-bearing ages should do cervical cancer screening test | | | |
| 23. Cervical cancer screening test is safe | | | |
| 24. Cervical cancer is common in Nigeria | | | |
| 25. I have enough information about cervical cancer to guide my pupils | | | |
| 26. I would like to know more about the cervical cancer | | | |
| 27. All women should get education about cervical cancer | | | |

28. In your own view do you think cervical cancer screening test should be performing on all women working in Oyo State secretariat? _____

_____

_____

_____

29. What in your opinion hindered the cervical cancer screening test on all women working in Oyo State secretariat?

_____

_____

_____

_____

30. What do you think can be done to improve the cervical cancer screening test?

_____

_____

_____

_____

## C. LEVEL OF AWARENESS OF CERVICAL CANCER SCREENING SERVICES

| S/N | QUESTIONS | YES | NO |
|---|---|---|---|
| 31 | Cervical cancer screening service available within my reach? | | |
| 32 | Most hospitals/clinics does not have cervical cancer screening services? | | |
| 33 | Most women of reproductive ages feared cervical cancer screening service therefore they distance themselves from it | | |
| 34 | Most of their husbands does not encourage their wives to seek knowledge about cervical cancer screening services | | |
| 35 | The little knowledge and awareness most women have about cervical cancer screening services are not enough | | |

## D. ATTITUDE TOWARDS CERVICAL CANCER SCREENING SERVICES

| S/N | QUESTIONS | YES | NO |
|---|---|---|---|
| 36 | My chances of getting cervical cancer if I attended cervical cancer screening services in the next few years are high. | | |
| 37 | I feel I will get cervical cancer some time during my life if I attended cervical cancer screening services | | |
| 38 | The thought of cervical cancer scares me therefore I don't want | | |

| | | | |
|---|---|---|---|
| | to attend any cervical cancer screening services | | |
| 39 | Cervical cancer would threaten a relationship with my husband if I attended cervical cancer screening services | | |
| 40 | Having cervical exams takes too much time | | |
| 41 | Having cervical exams is too painful. | | |
| 42 | Health care workers doing cervical exams are rude to women. | | |
| 43 | I have other problems more important than attending cervical cancer screening services in my life. | | |
| 44 | I will never have cervical exams if I have to pay for it. | | |
| 45 | I would be ashamed to lie on a gynecologic examination table and show my private parts to have a cervical exam. | | |

**E. UPTAKE OF CERVICAL CANCER SCREENING SERVICES**

| S/N | QUESTIONS | YES | NO |
|---|---|---|---|
| 46 | Most women of reproductive ages does not undergo cervical cancer screening service | | |
| 47 | Up of cervical cancer screening services scared most women | | |
| 48 | Up of cervical cancer screening services is not compulsory in most hospital/clinic | | |
| 49 | Most of their husbands does not encourage their wives to undertake cervical cancer screening services | | |
| 50 | Lack of knowledge and awareness most women have about cervical cancer screening services prevented them from undertake it | | |

**F. FACTORS INFLUENCING UPTAKE OF CERVICAL CANCER SCREENING SERVICES**

| S/N | QUESTIONS | YES | NO |
|---|---|---|---|
| 51 | Most women of reproductive ages were not aware about cervical cancer | | |
| 52 | Most hospitals/clinics does not have expertise on cervical cancer | | |
| 53 | Most women of reproductive ages feared cervical cancer therefore they don't want to hear anything about it | | |
| 54 | Most of their husbands does not encourage their wives to seek knowledge about cervical cancer | | |
| 55 | The little knowledge and awareness most women have about cervical cancer is not enough | | |

**G. STRATEGIES PROMOTING UPTAKE OF CERVICAL SCREENING SERVICES**

| S/N | QUESTIONS | YES | NO |
|---|---|---|---|
| 56 | Introduction of awareness and knowledge of cervical cancer in Nigeria educational system | | |
| 57 | Most hospitals/clinics must have expertise on cervical cancer | | |
| 58 | Most women of reproductive ages should be educated about cervical cancer screening services | | |
| 59 | Husbands should encourage and support their wives to attend cervical cancer screening services regularly | | |

| | | | |
|---|---|---|---|
| 60 | Cervical cancer screening services progress report must be included in marriage counselling requirement | | |

****END OF QUESTIONNAIRE. Thank you for your time****