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Knowledge of Cervical Cancer Prevention and Screening Uptake Among Female Non-Health Care Providers in Two Selected General Hospitals in Lagos State

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ABSTRACT: *Cervical cancer is an abnormal growth of the cells of the cervix which is the lower-most part of the uterus. This cancer can spread to other parts of the body, including the lungs, liver, bladder, vagina, and rectum. Therefore, this research was aimed at assessing the knowledge of cervical cancer prevention and screening uptake among female non-health care providers working in various departments in two general hospitals in Lagos. Annually, in Nigeria 14,943 cases of cervical cancer are reported: out of these 10,403 women die leading to 28 deaths daily from cervical cancer. However, this needless death can be prevented if the cases are diagnosed early through the cervical screening, knowledge and uptake. The research adopted a descriptive cross-sectional survey. The population comprises of 350 female non-health care providers from two selected general hospitals in Lagos Island. The sample size of 165 was determined using Leslie Kish formula. A self-developed and validated questionnaire was used to collect data. Data collected were analysed using descriptive and inferential statistics at 0.05 level of significance. The results showed that 108 (65.5%) of the respondents knew that abnormal vagina bleeding and bleeding after intercourse are symptoms of cervical cancer while 102 (61.8%) showed that having multiple sexual partners is among the factors for acquiring cervical cancer. Furthermore 113 (68.5%) showed that cervical cancer is preventable while 118 (71.5%) believes that regular cervical screening can prevent cervical cancer and 148 (89.7%) were interested in participating in cervical cancer screening. The knowledge and prevention revealed that there was a positive and significant relationship between them. The research concluded that despite the adequate knowledge of cervical cancer screening as reported by the result, the level of screening is still low. It is hereby recommended that female non-health care providers should do cervical cancer screening regularly.*

KEYWORDS: cervical cancer, female non –health care providers, knowledge, prevention, and screening processes.

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INTRODUCTION

Cervical cancer is the fourth most common cancer and also the fourth leading cause of cancer-related deaths in women globally. Cervical cancer remains the most common cancer in women in Eastern and Middle Africa (WHO, 2015). Also, according to Chris and Emmanuel (2017), cervical cancer remains a major cause of morbidity and mortality among the women in the world. World Health Organization predicts that by 2020 the global incidence of cancer will increase to 16 million annually. Cervical cancer kills approximately 300000 women and affects nearly 600000 women yearly, particularly middle-aged women and those living in lower-resource settings. India has the highest burden of cervical cancer in the world and researchers have reported poor awareness of cervical cancer and its prevention (Tapera, et al, 2019).

Approximately 570 000 cases of cervical cancer and 311000 deaths from the disease occurred in 2018. Cervical cancer was the fourth most common cancer in women, ranking after breast cancer (2·1 million cases), colorectal cancer (0·8 million) and lung cancer (0·7 million). The estimated age-standardised incidence of cervical cancer was 13·1 per 100 000 women globally and varied widely among countries, with rates ranging from less than 2 to 75 per 100000 women. Cervical cancer was also the leading cause of cancer-related death in women in eastern, western, middle, and southern Africa. The highest incidence was estimated in Eswatini, with approximately 6·5% of women developing cervical cancer before age 75 years. China and India together contributed more than a third of the global cervical burden, with 106000 cases in China and 97 000 cases in India, and 48 000 deaths in China and 60 000 deaths in India. However, there is wide variation in incidence and mortality from cervical cancer across different geographical locations worldwide. The rates are 7–10 times lower in North America, Australia/New Zealand, and Western Asia (Yahya & Mande 2019). Similarly, it is expected that the number of new cases and mortalities from cervical cancer in Africa will increase over the next couple of decades (Sylla & Wild, 2012).

Deaths resulting from cervical cancer are tragic as this type of cancer develops slowly and has a detectable precursor condition, known as carcinoma, which is treatable and can be prevented through screening (Abotchie & Shokar, 2012).Among all the cancers, cervical cancer is the fourth most frequent cancer among women worldwide. Every year, around 500,000 new cases of cervical cancer are diagnosed out of which 270,000 women die, mostly (85%) in developing countries. According to W.H.O, in 2018, around 570,000 women were diagnosed with cervical cancer worldwide and about 311,000 women died from the disease. Almost 99% cases of the cervical cancer are associated with infection with Human Papilloma Virus (HPV). It is a common virus which is transmitted through sexual contact. Sexually transmitted infection with high-risk HPV types is the main aetiological factor for cervical cancer.

Cancer of the cervix is the major reproductive health problem in women, especially in emergent nations. It is the major cause of morbidity and mortality in women globally and an issue of significant public health concern. It is a slow growing cancerous disease that generally takes several years to undergo malignant transformation from primary infection by the oncogenic human papilloma virus (HPV) to the various precancerous histological lesions accompanying the persistence of the infection. According to Chris and Emmanuel in 2018, other cofactors, such as

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some sexually transmittable infections (HIV and Chlamydia trachomatis), smoking, and oral hormonal contraception, tobacco smoking, multigravidity (>4), prolonged use of oral contraceptives (>5 years),excessive alcohol consumption and a positive family history have also been implicated, early sexual debut, multiple sexual partners, unprotected sex might also contribute to changes and contrasts in the global cervical cancer burden.

However, other putative factors related to socioeconomic development and transitions to a lifestyle more typical of high-income countries (including reproductive and sexual factors) seem to underpin major changes in cancer risk, the effect of which was seen in the lowering of cervical cancer rates over time and concomitant rises in breast cancer rates in several countries with emerging economies. Cervical cancer takes about 10-15 years to develop.

Low awareness and poor knowledge on cervical cancer and cervical cancer screening methods have been identified as major barriers to effective cervical cancer prevention in the developing nations. Lack of effective screening programs has also been identified as a major barrier to effective cervical cancer control (Yahya & Mande, 2019). Nigeria has been recorded to be having cervical cancer as her leading cause of cancer mortality, and it is the second most common cancer (Adewole, 2018). Each year approximately, 10,000 women develop cervical cancer, and about 8,000 women die from cervical cancer in Nigeria. These statistics have been attributed largely to poor awareness of preventive lifestyle factors, screening and vaccination programmes available to women in developing countries which leads women to seek treatment late resulting in poor outcomes and high mortality rates (Chris & Emmanuel 2018). This contrasts with trends in developed countries, where up to 80% of cervical cancers are managed early, with much better outcomes.

The uptake of cervical cancer screening has remained very low in Nigeria while the mortality and morbidity associated with cervical cancer remained high. The disease progresses over many years, with an estimated 1.4 million women worldwide living with cervical cancer, and up to 7 million world-wide may have precancerous conditions that need to be identified and treated (Oluwole, et al, 2017).However, most cervical cancers and related deaths can be avoided by integrated HPV-based screening and vaccination. The main objective of the study was to assess the knowledge of cervical cancer prevention and screening uptake among female non-health care providers in Lagos Island general hospitals. Specific objectives were to;

i. assess the knowledge of female non-health care providers about cervical cancer in Lagos Island General Hospitals;
ii. assess the knowledge of female non-health care providers about cervical cancer prevention in Lagos Island General Hospitals; and
iii. determine the cervical cancer screening uptake intention among female non-health care providers in Lagos Island General Hospitals.

Research Hypotheses

$H_0$1: There is no significant relationship between some socio-demographic variables and knowledge of prevention of cervical screening services among non-female health care providers

$H_0$2: There is no significant relationship between the knowledge of female non-health care providers about cervical cancer and the prevention in Lagos Island general hospitals

METHODOLOGY

This study was carried out using cross-sectional research design which is appropriate because it cut across two departments and the data was collected at one point. The target population of the study is 350 female non-health care providers working in General hospital, Odan Lagos and Lagos Island maternity hospital, Lagos State. The sample size of 165 was determined by using Leslie Kish formula. The sample size of 165 was shared between the two hospitals equally since there is no determined ratio for the sharing. The respondents from the two hospitals were selected using a simple random sampling of balloting.

The instrument for the collection of data for this research was self-structured questionnaires. It was designed in four sections/constructs (A, B C, and D).

Section A: This is titled Demographic Data which comprises Age, education status, department, religion, marital status, and parity number.

Section B: This is titled level of knowledge on cervical cancer which has two scales of Yes or No.

Section C: This is titled knowledge on prevention of cervical cancer which is measured using Yes or No

Section D: This is titled Knowledge of Cervical Cancer Screening Uptake which is measured using Yes or No

The self-structured questionnaire was tested for face and content validity by an expert in measurement and evaluation. Based on the expert's suggestions, necessary modifications were made in the preparation of the final draft. The instrument was first tried on 16 respondents with similar characteristic in a different location from the two hospitals. Reliability analysis was therefore calculated for all the items in each constructs using statistical package for social science (SPSS) version 21 with the help of Cronbach Alpha on Knowledge of cervical cancer and knowledge of the prevention of cervical cancer. The results were 0.76 and 0.75 respectively. This shows that the two constructs were consistent. Visit was made to the research settings and copies of questionnaire were distributed to the female non-health care providers. The collected data was entered into statistical package for social science (SPSS) version 25. Data was analyzed using descriptive statistics in the form of frequencies and percentages for quantitative variables while, the hypotheses were analysed using inferential statistics at 5% level of significance.

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RESULTS

Table 1: Respondent's Demographics Data

N=176			
DEMOGRAPHIC	**CATEGORY**	**FREQUENCY (f)**	**PERCENTAGE (%)**
Age	20-30 years	38	23.0
	31-40 years	98	59.4
	41-50 years	24	14.5
	51- and Above	5	3.0
	Total	**165**	**100.0**
Education	Primary	8	4.8
	Secondary	104	63.0
	Tertiary	53	32.1
	Total	**165**	**100.0**
Department	Catering	16	9.7
	Biomedical	5	3.0
	Tailoring	16	9.7
	Cleaner	3	1.8
	Record	38	23.0
	Store	10	6.1
	Laundry	31	18.8
	Domestic	32	19.4
	Health Attendance	3	1.8
	Others	11	6.7
	Total	**165**	**100.0**
Religion	Christianity	60	36.4
	Islam	98	59.4
	Others	7	4.2
	Total	**165**	**100.0**
Marital Status	Single	36	21.8
	Married	114	69.1
	Separated	11	6.7
	Divorced	4	2.4
	Total	**165**	**100.0**
Parity (No of Children)	None	37	22.4
	1-4 Children	101	62.2
	More than 5	27	16.4
	Total	**165**	**100.0**

The result from table 1 revealed that the respondents in majority 98 (59.4%) are between 31-40 years of age, 104 (63%) had secondary education, 38 (23%) are in records department, 98 (59.4%) are in Muslims, 95.1% are single, 114 (69.1%) are Married, and 101 (62.2%) have 1-4 no of

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children. Research objective one: assess the knowledge of female non-health care providers about cervical cancer in Lagos Island general hospitals.

Table 2: Knowledge of female non-health care providers about cervical cancer in Lagos Island general hospitals

Statements	**Category**	**Frequency and Percentage**
Have you heard about cervical cancer?	Yes	128 (77.6%)
	No	37 (22.4%)
	Total	**165 (100.0%)**
Sources of information about cervical cancer are Health worker, News media, Relations among others.	Yes	127 (77.0%)
	No	38 (23.0%)
	Total	**165 (100.0%)**
The followings are the symptoms of cervical cancer; Abnormal vaginal bleeding, Abnormal vaginal discharge, Bleeding after intercourse, Bleeding after menopause?	Yes	108 (65.5%)
	No	57 (34.5%)
	Total	**165 (100.0%)**
Cervical cancer is a leading cause of death among women?	Yes	112 (67.9%)
	No	53 (32.1%)
	Total	**165 (100.0%)**
Every woman is at risk of developing cervical cancer?	Yes	106 (64.2%)
	No	59 (35.8%)
	Total	**165 (100.0%)**
Cervical cancer is treatable?	Yes	102 (61.8%)
	No	63 (38.2%)
	Total	**165 (100.0%)**

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What are the risk factors for acquiring cervical cancer?	Multiple sexual partners	121 (73.3%)
	Early age at first sexual intercourse	44 (26.7%)
	Total	**165 (100.0%)**

Results from table 2 shows the respondents' responses on the knowledge of female non-health care providers about cervical cancer in Lagos Island general hospitals. About 128 (77.0%) affirmed they have heard about cervical cancer, 127 (77.0%) attested that the sources of information about cervical cancer are health worker, News media, relations among others. 108 (65.5%) affirms the following are the symptoms of cervical cancer; Abnormal vaginal bleeding, Abnormal vaginal discharge, Bleeding after intercourse, Bleeding after menopause, 112 (67.9%) attested that cervical cancer is a leading cause of death among women, 112 (67.9) affirms that cervical cancer is a leading cause of death among women, 106 (64.2%) confirms that every women is at risk of developing cervical cancer, 102 (61.8%) attested that cervical cancer is treatable, 121 (73.3%) confirms that multiple sexual partner is a top risk factor towards acquiring cervical cancer.

Table 3: Knowledge score

	Scale	Frequency	Percentage%
High	8-14	107	64.84
Low	1-7	58	35.15
	Total=	**165**	**100.0**

The table shows that there is a high level 107 (64.84%) of knowledge of female non-health care providers about cervical cancer in Lagos Island general hospitals.

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Table 4: Knowledge of female non-health care providers about cervical cancer prevention in Lagos Island general hospitals

Statements	**Category**	**Frequency and Percentage**
Cervical cancer is preventable?	Yes	113 (68.5%)
	No	52 (31.5%)
	Total	**165 (100.0%)**
Delay in sexual activities prevent cervical cancer	Yes	69 (41.8%)
	No	96 (58.2%)
	Total	**165 (100.0%)**
Early treatment of STIs can prevent cervical cancer	Yes	85 (51.5%)
	No	80 (48.5%)
	Total	**165 (100.0%)**
Regular cervical cancer screening can prevent cervical cancer	Yes	118 (71.5%)
	No	47 (28.5%)
	Total	**165 (100.0%)**
Vaccination of girls who are not yet sexually exposed can help prevent cervical cancer	Yes	84 (50.9%)
	No	81 (49.1%)
	Total	**165 (100.0%)**
Vaccination against HPV of girls, who are not sexually exposed can prevent cervical cancer	Yes	91 (55.2%)
	No	74 (44.8%)
	Total	**165 (100.0%)**
Avoidance of multiple sexual partners can help prevent cervical cancer	Yes	104 (63.0%)
	No	61 (37.0%)
	Total	**165 (100.0%)**

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Sources of information about cervical cancer:	Health worker	127 (77.0%)
	News media	38 (23.0%)
	Total	**165 (100.0%)**
Symptoms of cervical cancer are:	Abnormal vaginal discharge	120 (72.7%)
	bleeding after intercourse	45 (27.3%)
	Total	**165 (100.0%)**

Results from table 4 shows the respondents' responses on the knowledge of female non-health care providers about cervical cancer prevention in Lagos Island general hospitals. About 113 (68.5%) affirmed that cervical cancer is preventable, 96 (58.2%) disagrees that delay in sexual activities prevent cervical cancer, 85 (51.5%) affirms that early treatment of STIs can prevent cervical cancer, 118 (71.5%) confirms that regular cervical cancer screening can prevent cervical cancer, 84 (50.9%) confirms that vaccination of girls who are not yet sexually exposed can help prevent cervical cancer, 91 (55.2%) attested that vaccination against HPV of girls, who are not sexually exposed can prevent cervical cancer, 101 (63.0%) believes avoidance of multiple sexual partners can help prevent cervical cancer, 127 (77.0%) affirms they have heard about cervical cancer, 127 (77.0%) believes health care worker are the major source of information about cervical cancer, 120 (72.7%) affirms the major symptom of cervical cancer among others is abnormal vaginal discharge.

Table 5: Knowledge level score

	Scale	Frequency	Percentage%
High	11-20	117	70.91
Low	1-10	48	29.09
	Total=	**165**	**100.0**

The table shows that there is a high level 117 (70.91%) of knowledge of female non-health care providers about cervical cancer prevention in Lagos Island general hospitals

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Table 6: Showing intention influencing cervical cancer screening uptake among female non-health care providers in Lagos Island general hospitals

Statements	**Category**	**Frequency and Percentage**
Have you heard about cervical cancer screening?	Yes	118 (71.5%)
	No	47 (28.5%)
	Total	**165(100.0%)**
Have you been screened of cervical cancer before?	Yes	74 (44.8%)
	No	91 (55.2%)
	Total	**165(100.0%)**
If yes, last time screened, a year ago?	Yes	51 (30.9%)
	No	114 (69.1%)
	Total	**165(100.0%)**
Not more than five years ago?	Yes	27 (16.4%)
	No	138 (83.6%)
	Total	**165(100.0%)**
Are you interested in participating in cervical screening	Yes	148 (89.7%)
	No	17 (10.3%)
	Total	**165(100.0%)**

The table above shows that majority of the respondents 118 (71.5%) have heard about cervical cancer screening, 138 (83.6%) confirmed they have not gone for screening in five years, while 148 (89.7%) affirms that they are interested in participating in cervical screening.

Test of Hypotheses

Hypothesis 1: There is no significant relationship between some socio-demographic variables and knowledge of prevention of cervical screening services among non-female health care provide

Table 7: Pearson correlation showing the relationship between socio-demographic variables and prevention of cervical screening services among non-female health care providers

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Variable	R	p-value
Education and knowledge of Prevention	0.068	0.388
Religion and knowledge of prevention	0.227**	**0.003**
Monthly Income and knowledge of prevention	-0.039	0.622

**Correlation is significant at the level of 0.01

Education and knowledge of prevention, although not statistically significant there is positive weak correlation between education and knowledge of prevention. Religion and Prevention, it is statistically significant (p=0.003, r=0.227**) with a positive strong correlation between them. Monthly Income and Prevention, although not statistically significant, there is negative weak correlation between them.

Ho2: There is no significant relationship between the knowledge of female non-health care providers about cervical cancer and the prevention in Lagos Island general hospitals

Table 8: Relationship between knowledge of female non-health care providers about cervical cancer and the prevention

		Knowledge	Prevention
Knowledge	Pearson Correlation	1	.620**
	Sig. (2-tailed)		.000
	N	165	165
Prevention	Pearson Correlation	.620**	1
	Sig. (2-tailed)	.000	
	N	165	165

Table 8 revealed that there is a positive and significant relationship between knowledge of cervical cancer and prevention of cervical cancer in Lagos Island general hospitals (r=.620, p<0.05). Therefore, the null hypothesis which states that there is no significant relationship between the knowledge of female non-health care providers about knowledge of cervical cancer and the prevention in Lagos Island general hospitals is hereby rejected while the alternate hypothesis which states that there is a significant relationship between the knowledge of female non-health

care providers about cervical cancer and the prevention in Lagos Island general hospitals will be accepted.

DISCUSSION OF FINDINGS

The result found a high number of respondents having high knowledge of cervical cancer in Lagos Island general hospitals. This finding is similar with those of Hoque (2019) who found that about 76% of the respondents in his study had high level of knowledge about cervical cancer (Chris & Emmanuel., 2018). On the contrary, studies regarding knowledge and perception of cervical cancer among young women in Ethiopia are also very limited. Even though, students in higher institutions are expected to have good knowledge, due to access to different Medias like TV, internet and living in urban area, several studies had revealed that students in higher institutions had poor knowledge on cervical cancer (Kalayu, & Tesfay, 2017).

The findings show that about 70.91% of the respondents have high knowledge of cervical cancer prevention. Chris and Emmanuel (2018) also found a similar result which showed that about 76% of the women examined had a high level of knowledge about cervical cancer. This result is consistent with the findings of Chris and Emmanuel (2018) who found that the majority of the respondents in their study have good knowledge of the prevention of cervical cancer. The study revealed that the high level of knowledge about cervical cancer is as a result of awareness and seminars being carried out in the community on the prevention of cancers. About 71.51% of respondent in this study believes that regular cervical cancer screening can prevent cervical cancer. About 71.5% of the respondents in this study believed that regular cervical cancer screening can prevent cervical cancer. Likewise, Tapera, et al (2019) found that respondents have a high level of knowledge about the prevention of cervical cancer. The study equally found that lack of effective screening programs has also been identified as a major barrier to effective cervical cancer control. Also, Chris and Emmanuel (2018) in their study showed that the main primary prevention method is through vaccination against specific strains of the virus. Similarly, Salako and Sodiq (2020) do not agree that delay in sexual activities prevent cervical cancer which is in line with majority of the respondents 96 (58.2%) which affirmed that delay in sexual activities does not prevent cervical cancer**.**

The result of the study showed that the majority of the respondents 118 (71.5%) have heard about cervical cancer screening, 138 (83.6%) confirmed they have not gone for screening in five years, while 148 (89.7%) affirms that they are interested in participating in cervical screening. The study result is in agreement with the study of Ndikom and Ofi, (2012) who found that knowledge about cervical cancer is a factor influencing cervical screening uptake. Several factors have been identified as barriers to cervical cancer screening in our environment. These barriers are client based, health-care provider based, or system based. Common among these are poor awareness and knowledge about the disease and its screening strategies, lack of adequate public health campaign about the disease, its mode of prevention, and lack of awareness of screening sites.

The findings of the study show that religion and prevention was statistically significant being the most significant socio-demographic variable predicting the prevention of cervical cancer. This finding is consistent with the study of Yahya and Mande (2019). The study shows that there is a

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statistical and significant relationship between religion and the prevention of cervical screening. Also, Abiodun et al (2014) found a significant association among social demographic variables like religion on the prevention of cervical cancer.

The result of the study showed that there is a positive and significant relationship between knowledge and prevention of cervical cancer in Lagos Island general hospitals. Ajibola, et al (2016) found an insignificant relationship between knowledge of cervical cancer and the knowledge about its prevention. The result of Chris and Emmanuel (2018) is consistent with the findings of this study, the study revealed an insignificant association between knowledge of cervical cancer and knowledge of cervical cancer prevention. On the other hand Bray, et al, (2018) found a significant relationship between knowledge of cervical cancer and knowledge of cervical cancer prevention.

CONCLUSION

This study achieved its initial objectives of knowledge of cervical cancer prevention and screening uptake among female non-health care providers in two selected general hospitals in Lagos Island. Based on the findings of the study, the respondent had good knowledge about cancer and symptoms of cervical cancer. Their knowledge about prevention was high, however many has failed to go for cervical screening. Finally, they had good intention of taking part in cervical cancer screening.

Recommendations

The following are hereby recommended:

1. Health care providers should ensure that all female non-health care providers should have the Pap's smear carried out in order to detect cervical cancer as early as possible.
2. The respondent should go for cervical cancer screening regularly.
3. Nursing health education should be on the importance of cervical screening.
4. Effort should be made by the government to subsidize the cost of the screening to enable women go for the screening.

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