Perceived Knowledge and Screening Service Acceptance toward Cervical Cancer Reduction in Lagos State, Nigeria.

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Abstract

Cervical cancer is one of the most common cancers among women, which causes morbidity and mortality worldwide. Most women with cervical cancer present at an advanced stage due to a lack of knowledge about the disease and screening among the general population. There have been few studies in this area, focusing on knowledge of cervical cancer screening services among female health care providers in Nigeria, and more empirical research is needed. This study evaluated the knowledge and acceptability of cervical cancer screening among female nurses working in gbagada general hospital. The study was carried out in Lagos using survey design. A sample of 130 respondents (female nursing staff) was selected purposively. The instrument used was e-questionnaires, which consists of 29 items. The data collected was analyzed using descriptive statistics such as table, frequency and percentage while the formulated hypothesis was analyzed using inferential statistics like chi-square. The result (p-value = 0.000 < alpha value =0.05) of the hypothesis tested revealed that there is a significant relationship between the length of cervical cancer screening service and acceptability. Based on the findings, it was concluded that 120(92%) perceived cervical cancer screening as one of the preventive strategies towards reduction of cervical cancer. the sampled female healthcare providers have comprehensive knowledge of cervical cancer screening, but the acceptance was low. Lack of acceptability and usage cervical cancer screening methods may base on technical and financial constraint. The study recommended that there is a need for re-orientation for working nurses on preventive strategies for cervical cancer in available screening methods. Also, government should mandate all female health workers to participate in cervical cancer screening.

Key Words: Cervical Cancer Screening, Acceptance, Knowledge, Nurses, Lagos-Nigeria

1. Introduction

Globally, cervical cancer is the third most frequent cancer among women (ICO information centre on HPV and cancer, 2016). Each year, an estimated half million new cases are diagnosed with ~275,000 deaths in 2008 alone (Obeidat, Amarin and Alzagahal, 2012). Similarly, it is the most common and most lethal cancer among the women of sub-Saharan Africa (Iliyasu, Anubakar, Aliyu and Galadananci, 2010). A considerable reduction in cervical cancer incidence and deaths has been achieved in developed countries with effective strategies for cervical cancer screening and treatment programs (Roland, Soman, Benerd and Saraiya, 2011). However, this has not been possible in most resource-limited countries, mainly because systematic screening is rarely performed (Gebreegziabher, Asefa and Berhe, 2016).

Cervical cancer a largely preventable disease, is one of the most common cancers found in women living in low- and middle-income countries (LMICs) (Denny et al, 2015). Low-resource countries account for 85% of the cases, yet very little is spent in preventing and treating cervical cancers (ICO information centre on HPV and cancer, 2016). Cervical cancer is the fourth most common cancer in women. In 2018, an estimated 570 000 women were diagnosed with cervical cancer worldwide and about 311 000 women died from the disease. With an estimated 500,000 new cases and the cause of 273,000 deaths each year, cervical cancer is one of the most prevalent and deadly female cancers worldwide. The vast majority of cervical cancer cases (99.7%) are linked to genital infection with human (Okunade, 2019). Evidence from literature (Peirson, Fitzpatrick-Lewis,Ciliska & Warren, 2013) revealed that the use of cytology–based Papanicolaou smears screening in a developed nation has significantly reduced cervical cancer. However, cytology-based screening for cervical cancer is not yet successful in reducing cervical cancer burden in developing countries in which Nigeria is not excluded, the length of cervical cancer screening service and acceptability toward reduction of cervical cancer has drawn increasing interest from both practitioners and academics over the past decade, and is worthy of exploration in Nigeria context. Also, lack of standard policy or protocol for cervical cancer screening also form a major problem affecting cervical cancer screening acceptance in Nigeria (Ndikom and Ofi, 2012). However, cervical screening attendance rates are still far from satisfactory in developing countries (Gebreegziabher et al, 2016). Perhaps, cervical cancer screening facilities are limited due to poor infrastructure, staff, poor knowledge about cervical cancer, and illiteracy. The thrust of this study is to examine the knowledge and level of acceptability of cervical cancer screening toward cervical cancer disease reduction from Perspective of Female healthcare providers in Lagos State, Nigeria

Research Hypothesis.

Ho¹: There is no significant relationship between the length of cervical cancer screening service and acceptability?

2. Literature review.

2.1 Cervical Cancer

Cervical cancer is the second most common cancer among women in Nigeria. There were 31,955 new cervical cancer cases in West Africa in 2018, and Nigeria accounted for almost half (14,943). There were also 10,403 deaths (28 deaths every day) from cervical cancer in the country in the same year. About 70% of all cervical cancer cases are caused by the human papilloma virus (HPV) serotypes 16 and 18. (Bathija, Mallesh ,and Gajula, 2016). The most common mode of transmission is through sex, but it can also be transmitted through the use of contaminated hospital equipment and from mother to child. The cancer is ranked second in the number of years lost to disability among women in Nigeria. There are screening programmes geared towards the prevention of this cancer, including Papanicolaou (Pap) smear and HPV screening. These are secondary preventive measures that detect early-stage cervical cell abnormality and the virus's

presence. However, only 8.7% of Nigerian women had a pap smear in 2018, and fewer had HPV screening. This low uptake results from poorly organized services, the relatively high cost, and the shortage of resources and skills required for the services. (Omondi-Ogutu , Imunya,2011: Balogun & Olayemi, 2022).

The HPV vaccine is an effective primary prevention measure for cervical cancer. The vaccine is most effective when started before sexual debut, which is the reason for the recommendation of its administration in early adolescence. There are, however, two main obstacles on this path. First, the vaccine is currently being marketed at exorbitant costs. It is therefore out of reach of the average family. The Nigerian government is seeking ways to meet the conditions for accessing subsidised HPV vaccines under the global assistance programme. Second, Nigeria is yet to identify an organised structure through which most of the eligible adolescents can be reached with the HPV vaccine. (Balogun & Olayemi, 2022) . According to the Cervical Cancer Global Crisis Card, Nigeria ranks 5th among countries with regards to death count from cervical cancer, after India, China, Brazil and Bangladesh [*Cervical cancer global crisis card, 2017*]. Figures from the Ibadan Population Based Cancer Registry (IBCR) covering a 2 year period 2009-2010, show that cervical cancer age standardized mortality rate (ASR) was 36.0 per 100,000 which is higher than in most developed countries. Cervical cancer can have very high human, social and economic costs. [elima et al, 2012]. Cervical cancer screening, tests for precancerous lesions and cancer in women at risk, most of whom have no symptoms [who, 2017]. This includes the conventional Papanicolau (Pap) test, liquid based cytology, visual inspection with acetic acid or lugols iodine (VIA or VILI) and Human papiloma virus (HPV) testing for high risk HPV testing [who, 2017].

2.2 Knowledge and Screening Service Acceptance toward Cancer Cervix Reduction

Increasing the screening rate of women who have never screened or who screen infrequently is an important strategy for reducing the incidence and mortality associated with cervical cancer [Dim, 2012]. Knowledge about cancer of the cervix and its screening is important in screening uptake. Women with low levels of knowledge about cervical cancer and its prevention are less likely to access screening services [Ezem, 2007: Eze, Umeora, Obuna, Egwuatu, and Ejikeme, 2012; Arulogun and Maxwell, 2012; Nwozor and Oragudosi, 2013]. Previous studies done among female health workers have shown good knowledge of cervical cancer. However, cervical cancer screening attendance rates are still far from satisfactory in most countries [Nwobodo and Malami, 2005; Udigwe, 2006]. Nurses play a major role in promoting health care services and in enlightening the public on many health-related issues, and their knowledge and attitude on health-related issues are crucial in gaining and promoting patients' uptake of care. Female healthcare providers help to improve women's confidence. In line with this, the length of cervical cancer screening service and acceptability toward reduction of cervical cancer among This study was embarked upon to fill a knowledge gap by assessing the perceived knowledge and acceptability of cervical cancer screening services among female nurses in a gbagada general hospital, Lago state .the construct of this study were anchor on health belief model based on the assumption of the model on determinant variables of acceptability and utilization of scientific

knowledge in heath sector such as Individual perception: Modifying factors, Perceived benefits, Perceived susceptibility, Perceived severity, Perceived treat for cervical cancer, Cues to action and Likelihood of action.

3. Methodology

A cross-sectional descriptive design was used for this study. The study population comprises all 200 female nurses working in Gbagada General Hospital, Lagos State, Nigeria. 143 questionnaires were administered for the study, representing the sample size of the study using the Taro-yamme formula.

$$n = \frac{N}{1 + (Ne^2)}$$

n = the calculated sample size, e = margin of error (0.05)
N= total population of female nurses working in Gbagada = 200

$$n = \frac{N}{1 + (Ne^2)} \qquad\qquad n = \frac{200}{1 + (200 \times (0.05)^2)}$$

$$n = \frac{200}{1 + (200 \times 0.0025)} \qquad\qquad n = \frac{200}{1 + 0.5}$$

$$n = \frac{200}{1.5} \qquad\qquad n = 133.33 \sim 130+ \ 10\% \ \text{non \_response rate.}$$

A structured, pretested, self-administered e- questionnaire was the tool for data collection in this study. The e-questionnaire contained questions on the socio demographic profile of the nurses, their knowledge and acceptance of cervical cancer screening. The researchers ensured that the female nurses responded to all the questions on the e-questionnaire without leaving any question un-answered by making all questions compulsory in such a way that they cannot move to the next section without responding to all questions in the current section, neither will they be able to submit if all the compulsory questions has not been answered. The information obtained was handled confidentially with no names or identifying information appearing in the write up for the study. The data collected was analyzed using descriptive statistics such as table percentage and bar chart, while the formulated hypotheses were analyzed using inferential statistics like chi-square. The study hypothesis was tested at 95% confidence level

4. Results and Discussion

The results of data collected from respondent through questionnaires on knowledge and acceptance of cervical cancer screening among female nurses working in Gbagada general hospital, Lagos state were organized, analyzed and presented according to the research hypothesis which guided the research work. One hundred and thirty (130) respondents were used from an online questionnaire. Analysis in table Table 1 to 3 above shows the demographic data of the respondents according to age, marital status, religion, ethnicity and number of children. The result shows that majority of the respondents, 55 (42.3%) were between 26 – 30 years of age, 39 (30%) were above 45 years, 15 (11.5%) between 41 - 45 years, 11 (8.5%) were between 20 – 25 years, 7 (5.4%) were between 31 – 35 years, while the remaining 3 (2.3%) were between 36 – 40 years. The result also

shows that majority, 104 (80%) are married, 19 (14.6%) are singles, 4 (3.1%) are divorced, while the remaining 3 (2.3%) are widows. Further analysis presented in table 1 shows that majority of the respondents, 96 (73.8%) are Christians, while the remaining 34 (26.2%) are muslims. The result in table 1, also revealed that 100 (76.9%) of the respondents are from the Yoruba ethnic group, 18 (13.8%) from the Igbo ethnic group, while the remaining 12 (9.2%) are from the Edo ethnic group. The analysis presented in the table 1 shows that majority of the respondents, 51 (39.2%) have 2 to 3 children, 33 (25.4%) have none, 27 (20.8%) have 4 to 5 children, while the remaining 19 (14.6%) have only 1 child each.

TABLE 1: Showing Demographic Characteristics of Respondents

VARIABLES	FREQUENCY	PERCENTAGE
Age Group		
20 - 25 years	11	8.5
26 - 30 years	55	42.3
31 - 35 years	7	5.4
36 - 40 years	3	2.3
41- 45 years	15	11.5
Above 45 years	39	30
Total	130	100
Marital Status		
Single	19	14.6
Married	104	80
Divorced	4	3.1
Widow	3	2.3
Total	130	100
Religion		
Christianity	96	73.8
Islam	34	26.2
Total	130	100
Ethnic Group		
Yoruba	100	76.9
Igbo	18	13.8
Edo	12	9.2
Total	130	100
Number of Children		
None	33	25.4
1	19	14.6
2 – 3	51	39.2
4 – 5	27	20.8
Total	130	100

Source: Data Analysis, (2022).

Respondent Perception on Knowledge and Screening Service Acceptance toward Cancer Cervix Reduction

Analysis in Table 2 above shows the knowledge and the level of awareness of the respondents about cervical cancer. Result in table 2 shows that 124 (95.4%) respondents have heard about cervical cancer before, while the remaining 6 (4.6%) have not heard about it before. This reveals that majority of the female nurses working at Gbagada General Hospital, Lagos state, have heard about cervical cancer before. The result also shows that 89 (70.1%) of the valid respondents heard about cervical cancer through health facility, 14 (11%) heard about it from family, friends, neighbors and colleagues, 13 (10.2%) heard through the media, 4 (3.1%) heard from Community health workers, another 4 (3.1%) also heard through other means, while the remaining 3 (2.4%) heard through printed materials, brochure, posters and others. The result revealed that majority 105 (80.8%) of the respondents describe cervical cancer as abnormal lesion on the cervix, 11 (8.5%) describe it as Rashes in the cervix and vagina, 7 (5.4%) describes it as Itching of the vagina, while the remaining 7 (5.4%) describe it as Irregular menstrual period. This implies that cervical cancer is abnormal lesion on the cervix. The table revealed that 29 (22.3%) of the respondents were of opinon that Vaginal bleeding between periods is one of the signs and symptoms of cervical cancer, 22 (16.9%) were of opinon that vaginal bleeding after the menopause, 21 (16.2%) Persistent vaginal discharge, 20 (15.4%) Menstrual periods that are heavier or longer than usual, 15 (11.5%) were of opinon that Discomfort or pain during sex, 12 (9.2%) Unexplained weight loss, while 11 (8.5%) were undecided.

More so, result in table 3 shows that 120 (92.3%) respondents have heard about cervical cancer screen before, while the remaining 10 (7.7%) have not heard about it before. This reveals that majority of the female nurses working at Gbagada General Hospital, Lagos state, have good knowledge about cervical cancer screening. Analysis in table 3 also shows that 65 (52.4%) of the valid respondents heard about cervical cancer screening through nurses, 24 (19.4%) heard about it from community health workers, 14 (11.3%) heard through non-governmental organizations, 11 (8.9%) heard from doctors, 4 (3.2%) from school, 3 (2.4%) heard through family members, while the remaining 3 (2.4%) heard through journals/seminars. The table reveal that majority 117 (90%) of the respondents have knowledge of one or two cervical cancer screening procedure, while the remaining 13 (10%) did not know of any procedure. Result in table 3 revealed that 83 (66.9%) of the respondents knows pap smear test as a cervical cancer screening procedure, 25 (20.2%) knows VIA (Visual inspection using Acetic acid), 12 (9.7%) knows VILI (Visual inspection using Lugol's Iodine), while 4 (3.2%) knows biopsy.

Also, analysis in table 4 shows that 76 (58.5%) respondents have gone for cervical cancer screen at least once, while the remaining 54 (41.5%) have not. The table also shows that 108 (89.3%) of the respondents went for cervical cancer screening for preventive measure, 7 (5.8%)

for other reasons, 3 (2.5%) for diagnostic purpose, while the remaining 3 (2.5%) went for it because of health worker's recommendation. The table reveal that majority 62 (47.7%) of the respondents one should start going for cervical cancer once they become sexually active, 42 (32.3%) said from 18 years and above, 14 (10.8%) said they don't know, while the remaining 12 (9.2%) said when one get sexually transmitted infection. The table revealed that 51 (42.1%) of the respondents has gone for cervical cancer screening once in their life time, 20 (16.5%) goes for it yearly, 19 (15.7%) said every three years, 12(9.9%) said every two years, 8 (6.6%) said others (not specified), 7 (5.8%) said none of the above, while 4 (3.3%) said not yet. The result in table 4 also revealed that majority 104 (86%) of the respondents said they still have intention to go for cervical cancer screening again, while the remaining 17 (14%) said they don't have intention of going for the screening again. The analysis revealed that 118 (97.5%) of the respondents said they can recommend cervical cancer screening to another female, while 3 (2.5%) said they cannot.

TABLE 2: Showing The Respondents' Knowledge About Cervical Cancer

VARIABLE	FREQUENCY	PERCENTAGE
Have you heard of cervical cancer		
Yes	124	95.4
No	6	4.6
Total	130	100
Sources of awareness		
Health facility	89	70.1
Media	13	10.2
Family, friends, neighbours and colleagues	14	11
Printed materials Brochures, posters and others	3	2.4
Community Health Workers	4	3.1
Others	4	3.1
Total	127	100
Description of cervical cancer		
Rashes in the cervix and vagina	11	8.5
Itching of the vagina	7	5.4
Irregular menstrual period	7	5.4
Abnormal lesion on the cervix	105	80.8
Total	130	100
Signs and Symptoms of Cervical cancer		
Vaginal bleeding between periods	29	22.3
Vaginal bleeding after the menopause	22	16.9
Persistent vaginal discharge	21	16.2
Menstrual periods that are heavier or longer than usual	20	15.4
Discomfort or pain during sex	15	11.5
Unexplained weight loss	12	9.2
Don't know	7	5.4
All of the above	4	3.1
Total	130	100

Source: Data Analysis, (2022).

TABLE 3: Showing The Respondents' Knowledge About Cervical Cancer Screening.

VARIABLE	FREQUENCY	PERCENTAGE
Have you heard of cervical cancer screening		
Yes	120	92.3
No	10	7.7
Total	130	100
Sources of awareness		
Family members	3	2.4
Nurse	65	52.4
Doctor	11	8.9
Non-governmental organization	14	11.3
Community Health Workers	24	19.4
Journals/Seminars	3	2.4
School	4	3.2
Total	124	100
Do you know any cervical cancer screening procedure?		
Yes	117	90
No	13	10
Total	130	100
If yes, which one		
Pap smear test	83	66.9
VIA(Visual inspection using Acetic acid)	25	20.2
VILI (Visual inspection using Lugol's Iodine)	12	9.7
Biopsy	4	3.2
Total	124	100

Source: Data Analysis, (2022).

TABLE 4: Showing The Acceptability Of Cervical Cancer Screening

VARIABLE	FREQUENCY	PERCENTAGE
Have you ever been screened for cervical cancer?		
Yes	76	58.5
No	54	41.5
Total	130	100
What was the reason for going for cervical cancer screening?		
Preventive Measure	108	89.3
Diagnostic purposes	3	2.5
Health workers' recommendation	3	2.5
Others	7	5.8
Total	121	100
When should one start screening for cervical cancer?		
From 18 years and above	42	32.3
When one get a sexually transmitted infection	12	9.2
When one becomes sexually active	62	47.7
I do not know	14	10.8
Total	130	100
How often do you go for screening?		
Yearly	20	16.5
Every two years	12	9.9
Every three years	19	15.7
Once in my life time	51	42.1
Not yet	4	3.3
None of the above	7	5.8
Others	8	6.6
Total	121	100
Do you have any intention of going for cervical cancer screening again?		
Yes	104	86
No	17	14
Total	121	100
Will you recommend the screening to another female?		
Yes	118	97.5
No	3	2.5
Total	121	100

Source: Data Analysis, (2022).

Test of Hypothesis

Hypothesis was tested with chi-square test to test the relationship

Hypothesis 1

H_0: There is no significant relationship between length of cervical cancer screening service and acceptability.

TABLE 5Showing The Relationship Between Length Of Cervical Cancer Screening Service and Acceptability.

			Do you have any intention of going for cervical cancer screening again?		Total
			Yes	No	
How long does it take before one receives the cervical cancer screening results?	Hours	Count	39	7	46
		Expected Count	39.5	6.5	46.0
	Days	Count	50	0	50
		Expected Count	43.0	7.0	50.0
	Weeks	Count	15	10	25
		Expected Count	21.5	3.5	25.0
Total		Count	104	17	121
		Expected Count	104.0	17.0	121.0

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.167[a]	2	.000
Likelihood Ratio	25.334	2	.000
Linear-by-Linear Association	4.317	1	.038
N of Valid Cases	121		

Decision Rule

If p value is less than alpha value 0.05, we reject Ho otherwise we do not reject.

Based on result presented in table 5, since p value (0.000) < alpha value (0.05), we reject Ho and conclude that there is significant relationship between length of cervical cancer screening service and acceptability. It implies that the level of respondent experience on screening service determine the acceptability as a preventive measures.

Discussion of Findings

Findings from analysis shows that 95.4% of female nurses working at Gbagada General Hospital, Lagos state, have heard about cervical cancer. This implies that the female nurses have good knowledge about cervical cancer, this contradicts the report by Ajah, et al, 2015, that stated that several studies have shown poor knowledge of the disease and its screening in Africa, which even cuts across different literacy levels. Also, this is in contrary to a study conducted at Tanzania among women of child bearing age, it was revealed that there was low knowledge on cervical cancer where 83.1 % had inadequate knowledge of cervical cancer. Anslysis revealed that 124 (95%) sampled female healthcare providers have comprehensive knowledge of cervical cancer screening, but the acceptance was low, further, 120(92%) perceived cervical cancer screening as one of the preventive strategies towards reduction of cervical cancer. This result support the outcome of Titilayo et al, (2017) with emphasis that 41% knew of at least one screening test.

5. Conclusion and Recommendation

Based on the findings, it was concluded that 120(92%) perceived cervical cancer screening as one of the preventive strategies towards reduction of cervical cancer. the sampled female healthcare providers have comprehensive knowledge of cervical cancer screening, but the acceptance was low. Lack of acceptability and usage of cytology based cervical cancer screening may base on technically and financially difficult to decentralize, cheaper alternatives such visual inspection of the cervix after application of acetic acid (VIA) or Lugol's iodine (VILI). The study recommended that there is a need for re-orientation for working nurses on preventive strategies for cervical cancer in available screening methods.

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