



Proceedings of the 37th iSTEAMS Cross-Border Conference – Accra Ghana 2023
Series 37, Volume No 2

Faculty of Computational Sciences & Informatics - Academic City University College, Accra, Ghana
SMART Scientific Projects & Research Consortium (SMART SPaRC)
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Creative Research Publishers – Society for Multidisciplinary & Advanced Research Techniques (SMART) Africa

**37th International Science Technology Education Arts Management
& Social Sciences (iSTEAMS) Cross-Border Conference - Accra Ghana 2023**

Determinants of The Uptake of Cervical Cancer Screening Among Women in Jos North, Plateau State: Implication for Social Inclusivity

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ABSTRACT

With the growing incidence of cancer of the cervix among women and related mortality, cervical cancer has become a global health issue especially among developing nations. Although an early detection through screening is said to be a cost effective method of reducing the rate of prevalence of the disease, however, the uptake is abysmally low in the study area. Thus, the objective of the study is to ascertain the determinant to the uptake of cervical cancer among women in Jos North, Plateau State, Nigeria. A cross sectional descriptive survey design was adopted. Primary data was collected using quantitative method. 367 questionnaires were distributed among women between ages 15-49 who were selected through multi stage sampling technique. Descriptive statistics of the data were carried out using statistical package for social sciences (SPSS) Windows version 25.0. Findings reveal that there is a low uptake of cervical cancer screening among women in Jos North Plateau State and this is as a result of low risk perception, lack of spousal approval, high cost of screening, fear of been diagnosed with cancer, lack of awareness of screening centre and the fear of been screened by a male health practitioner. Thus, it is recommended that public health workers create awareness is on the need for cervical cancer so as to dispel the negative attitudes towards uptake of screening among women in Plateau State.

Keywords: Cervix, Cancer, Determinants, Pap smear, Uptake, Screening

Proceedings Citation Format

Danladi, A.A. Dung, D.G. & Magaji, J.M. (2023): Danladi, Abok Atu (PhD), Determinants of The Uptake of Cervical Cancer Screening Among Women in Jos North, Plateau State: Implication For Social Inclusivity. Proceedings of the 37th iSTEAMS Multidisciplinary Cross-Border Conference. 30th October – 1st November, 2023. Academic City University College, Accra, Ghana. Pp 57-68. [dx.doi.org/10.22624/AIMS/ACCRCROSSBORDER2023 V2P5](https://doi.org/10.22624/AIMS/ACCRCROSSBORDER2023 V2P5)

1. BACKGROUND TO THE STUDY

There has been a global general health concern about the spread of cervical disease (Yimer *et al.*, 2021). Cervical malignant growth is presently the most widely recognised type of genital disease in women, making it a disturbing medical condition among them. Today, cervical cancer ranks fourth among women with malignant infection around the globe (Bruni *et al.*, 2021; Lin *et al.*, 2021; Zhang *et al.*, 2019; WHO, 2018). Globally, there were about 570,000 new cases and 311,000 deaths from cervical cancer in 2018. Bruni, *et al.*, (2021) further reported that there has been an increase in the incidence rate as there were around 604,127 new cases of cervical cancer and 341,831, mortality in 2020. As indicated by Fitzmaurice, *et al.* (2015), most of cases (85%) occur in developing nations while nations in Sub-Saharan Africa have the most noteworthy pace of cervical disease mortality.

More so, Desta, *et al.* (2021) reported that the rate of cervical disease and mortality related with it change essentially from one region to another and in Africa, it is reported that there is an elevated mortality rates across the area. According to Farley *et al.* (2018), the rates are seven to multiple times lower in Western Asia, North America, and Australia/New Zealand. Over 14,000 new instances of cervical malignant growth are reported every year among Nigerian women between the ages of 15 and 44, bringing about an estimated 20 deaths each day (Ferlay, *et al.*, 2020). What's more, on the off chance that intentional counteraction and control measures are not executed,

it is presently estimated that over 53 million Nigerian adolescents and women beyond 15 years old might be affected by the infection (Diaz *et al.*, 2018). Cervical cancer disease can have very high human, social and financial costs. According to Olubodun, Odukoya and Balogun (2019), it normally influences women and makes decimating impacts on them.

1.1 Statement of Problem

Throughout the span of over twenty years, the Papanicolaou (Pap) smear cytology screening technique has altogether led to a decline in the occurrence of cancer of the cervix especially in developed countries (WHO, 2006; Stewart and Kleihues, 2003). Easy screening for cervix malignant growth has likewise been made conceivable through the development of extra less obtrusive techniques. Such procedures integrate Visual Investigation with Acetic Acid (VIA) and Visual Investigation with Lugol's Iodine (VILI). Albeit, these strategies are speedier and more straightforward to utilize, they have been viewed as less delicate than a Pap smear's cytologic screening. These different types of screening are designed to ensure large coverage of the screening among women.

In 2005, the World Health Assemble (WHA) embraced goal 58.22, which asked member nations to heighten their battle against cancer by laying out Public Disease Control Projects (WHO, 2005). This was because of the general increase in the incident rate of the disease. In Nigeria, The National Cancer Control Programme was laid out in Nigeria in 2008 determined to lessen malignant growth related dismalness and mortality as well as its financial impacts. Also, a cervical disease control plan was created by the Federal Ministry of Health (FMOH) through National Cancer Control Programme. As part of the programme, Human papilloma infection (HPV) immunization and cervical cancer screening were included as essential precautionary measures for girls between ages 9 to 15 (FMOH, 2008).



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However, the level of execution of this plan is still a matter of debate in the country. Also, the World Health Organization has proposed far reaching procedures for controlling and forestalling cervical cancer in 2020 (WHO, 2020). Part of the strategy includes; essential, auxiliary, and tertiary preventive approaches like local area training, social assembly, immunization, screening, treatment, and palliative consideration.

However, Jeronimo *et al.* (2014) noted that in spite of the fact that screening is a notable and savvy technique for lessening the occurrence of cervical cancer globally, its reception is still strikingly low, especially in third world countries. This is likewise evident in Nigeria and in Jos North, Plateau State, where, regardless of the developing commonness of the illness, only about 9% of women have gone through cervical cancer screening (Ekwunife and Lhachimi, 2017). Along these lines, various other research highlight critical uptake variations brought about by the socio-economic and financial status of women.

For example, Hyacinth *et al.* (2012) noticed 10.2% screening take-up among metropolitan women and Eze *et al.* (2012) found just 0.6% screening take-up among rural women. The fact that the majority of cervical cancer screening services offered by government and non-government organizations in Nigeria were unorganized and poorly coordinated is one of the barriers to access. Most services are provided in cities; rural and semi-urban residents are frequently underserved. Another issue is that women are not aware of cervical cancer screening and cancer of the cervix. These cases are seen in their advanced stages, when doctors are unable to treat them.

Various explanations have been presented for Nigeria's low paces of cervical disease screening. According to Sowemimo, Ojo, and Fasubaa (2017), and Ishola and Omole, (2016), the essential issues in Nigeria's battle against cervical cancer can be attributed to the poor health sector and the shortfall of a strategy to control the illness. Along these lines, socio-cultural norms, poor knowledge, low risk perception, poverty, a lack of female providers, a fear of positive screening results, and poverty all play a significant role in the low utilization of cervical cancer screening services among Nigerian women. Different investigations discovered that age, conjugal status, equality, risk insight, monetary constraints, and knowing somebody with cervix disease were significant variables (Ncube *et al.*, 2015; Ndikom and Ofi, 2012).

The program to forestall cervical disease is not well developed in Nigeria. In hospitals, when women present with gynecological complaints, opportunistic screening is used. Government tertiary hospitals, of which there are only a few in each state, offer cervical cancer screening. In this manner, context oriented comprehension of determinants of women's utilization of cervical disease screening is fundamental in Jos North Plateau State. The reason for this study is to give data that policymakers in Nigeria could use to shape cervical cancer screening programs. Furthermore, it expected to close the gap for uptake of cervical screening among women in Plateau State Nigeria.

1.2 Objectives Of The Study

The main objective of this study was to ascertain the factors affecting the uptake of cervical cancer screening among women in Jos North, Plateau State, Nigeria.

2. THEORETICAL FRAMEWORK: THE BEHAVIOURAL MODEL

The behavioural model asserts that there are three factors that determine health seeking behaviour. These factors are predisposing factors (a person's socioeconomic level, which is determined by factors like educational attainment and the job of the family head, as well as demographic factors like age, sex, and prior diseases or health conditions, are among the predisposing factors), enabling factors (such as access to health care services, affordability of services, health insurance coverage, place of residents and the social norms and values regarding such services) and need factor (it can be claimed that a person's decision to seek professional assistance or support may be influenced by his or her general health status, as well as by his or her knowledge of disease, symptoms, and anxiety, as well as the fear of further breakdown are basically the needs factor).

Therefore, using the behavioural model, it can be said that an individual's behaviour of seeking medical attention (uptake of cervical cancer screening) is influenced by factors such as their personality traits, environment, and interactions with other social forces. According to the model, the uptake of cervical cancer screening is determined by various predisposing variables, enabling variables, and perceived needs. Age of the women, education level, and occupation are some examples of the demographic and socio-structural factors that predispose the uptake cervical cancer.

Furthermore, access to healthcare services, wealth index, and support from close friends and family, and the price of healthcare services are among the enabling factors that have impact on the uptake of cervical cancer screening. When deciding whether to use or not to use undertake the cervical cancer screening is frequently impacted by the availability and expense of healthcare services. The concept "perceived needs" refers to a person's beliefs about their own health or the typical response of their family, and it encompasses characteristics of those the mindsets, principles, and understanding of health issues and services that influence how they see the need for a specific service. The choice of uptake of cervical cancer screening can be informed by symptoms of the disease or in cases where women are sick and are advised by health practitioners to undertake the screening.

3. METHODOLOGY

3.1 Research Design

The study employed a cross-sectional descriptive survey design.

3.2 Population and Sampling

The target population for this study is women within the reproductive age of 15-49 years in Jos North Local Government Area of Plateau State totaling 211,072 women (NPC, 2022). The study took a sample size of 400 women using the Taro Yamane formula of sample size determination, 95% confidence level and 5% margin of error allowed (Adam, 2020). Using multistage sampling technique, a total of 400 women were selected between May and July 2023. The first stage involved selection of a district area from the different district in the LGA by balloting. In the second stage, two communities in the districts were selected by balloting. All households in the chosen communities with eligible respondents (women between ages 15-49 years) were selected for the study. In houses where there are more than one household with eligible respondents, a household was randomly selected by balloting.

3.3 Method of Data Collection

Data were obtained using questionnaire. The questionnaire was developed based on information obtained from previous studies on cervical cancer screening. Data were collected on socio-demographic characteristic of the respondents, their awareness on cancer of the cervix/screening, knowledge about the disease, their attitudes towards screening, and reasons for non screening. Respondents who had not been screened were asked to select reason for their lack of screening. The questionnaires were interviewed administered so as to help respondents who are not able to read and write. The questionnaire was pretested in another district of the LGA so as to test the validity of the instrument. Ambiguous questions observed during pretesting were either rephrased or removed in line with the study objectives. Four research assistants were recruited and trained for the purpose of data collection.

4. DATA ANALYSIS

The data were field-edited daily and Statistical Package for Social Sciences (SPSS, version 25) was used for analysis. Initial analyses were done by generating frequency tables. Thus, data were analysed using frequency tables.

4.1 Data Presentation And Analysis

Out of the four hundred questionnaires distributed, three hundred and seventy four (375) were answered and retrieved but only three hundred and sixty seven (367) representing 96.3percent of the questionnaires were valid and so are being used for analysis.

Table 1: Socio-demographic distribution of Respondents

Age of Respondents	Frequency	Percentage
15-24	131	35.7
25-34	82	22.3
35-44	68	18.5
45 and above	86	23.5
Total	367	100.0
Marital Status	Frequency	Percentage
Single	19	5.2
Married	282	76.8
Widowed	51	13.9
Divorced/Separated	15	4.1
Total	367	100.0
Respondents Religion	Frequency	Percentage
Christianity	154	42.0
Islam	213	58.0
Total	367	100.0
Educational Attainment	Frequency	Percentage
Non formal Education	71	19.3
Primary	134	36.5
Secondary	112	30.5
Tertiary	50	13.6
Total	367	100.0

Respondents Occupation	Frequency	Percentage
Civil Servant	79	21.5
Business	122	33.2
Housewife	47	12.8
Others	119	32.4
Total	367	100.0
Monthly Income	Frequency	Percentage
Below #10000	25	6.8
#11000-#30000	127	34.6
#31000-#50000	128	34.9
#51000 and above	87	23.7
Total	367	100.0

Source: Field Survey, 2023

The table showed that most of the respondents are between ages 15-29 years as represented by 35.7percent of the sample size. Also, most of the respondents are married as reported by 76.8 percent. Equally, 58 percent of the respondents are Muslims while 42 percent of the respondents are Christian. Also, most of the respondents have attained some form of formal education as 36.5percent said they have attained some primary school. Most of the women are engage in business (33.2percent) and artisans (32.4percent). And 34.9 percent said they earn between #31000 to #50000, 34.6 percent reported earning between #11000-30000, 23.7 percent said they earn between #51000 and above while 6.8 percent reported earning #10000 and below.

Table 2 Awareness of cancer of the cervix

Response	Frequency	Percentage
Yes	329	89.6
No	38	10.4
Total	367	100.0

Source: Field Survey, 2023

Table 2 reveals the level of awareness of cancer of the cervix. 89.6 percent of respondents affirm that they have heard of cancer of the cervix.

Table 3 How respondents heard of Cervical Cancer

Responses	Frequency	Percentage
Television	58	17.6
Radio	105	31.9
Book	2	.6
Hospital	164	50.3
Total	329	100.0

Source: Field Survey, 2023

Table 3 shows that 50.3 percent of the respondents were informed about cancer of the cervix in the hospital. 31.9 percent said they heard about it from the radio while 17.6 percent said they had about the virus from television. This shows that most women get information about cancer of the cervix from the hospital.

Table 4: Knowledge, Attitude and Uptake of Cervical Cancer Screening

Knowledge of pap Smear Screening	Frequency	Percentage
Yes	198	54.0
No	169	46.0
Total	367	100.0
Aware of benefits of conducting the screening	Frequency	Percentage
Yes	51	13.9
No	316	86.1
Total	367	100.0
Respondents attitudes towards screening	Frequency	Percentage
Positive	263	71.7
Negative	104	28.3
Total	367	100.0
Uptake of screening	Frequency	Percentage
Yes	56	15.3
No	311	84.7
Total	367	100.0

Source: Field Survey, 2023

Table 4 reveals that an overwhelming proportion of the respondents from the sampled area have not heard of cervical cancer screening. The table shows that 61.3 percent of the respondents have not had of the screening. More so, 86.1 percent of the women are not aware of the benefits of cervical cancer screening.

Also, 71.7 percent of the respondents have a positive attitude towards cervical cancer screening. However, only 15.3 percent of the women in the study have had cervical cancer screening.

Table 5 Reasons for lack of uptake of cervical cancer screening

Low risk perception	Frequency	Percentage
Yes	308	83.9
No	59	16.1
Total	367	100.0
Lack of spousal approval	Frequency	Percentage
Yes	315	85.8
No	52	14.2
Total	367	100.0
High cost of screening	Frequency	Percentage
Yes	329	89.6
No	38	10.4
Total	367	100.0
Table 5 Reasons for lack of uptake of cervical cancer screening (Continued)		
Fear of been diagnosed with cancer	Frequency	Percentage
Yes	256	69.8
No	111	30.2
Total	367	100.0
Not aware of screening centres	Frequency	Percentage
Yes	312	85.0
No	55	15.0
Total	367	100.0
My religious belief does not encourage it	Frequency	Percentage
Yes	120	32.7
No	247	68.3
Total	367	100.0
The fear of been screened by a male doctor	Frequency	Percentage
Yes	193	52.6
No	174	47.3
Total	367	100.0

Source: Field Survey, 2023

The table shows that among the reasons for poor uptake of cervical cancer screening are; low risk perception (83.9%), lack of spousal approval (85.8%), high cost of screening (89.6%), fear of been diagnosed with cancer (69.8%), not aware of screening centres (85.0%) and the fear of been screened by a male doctor (52.6%).

5. DISCUSSION

Findings from the study showed that most of the women in the study area are have knowledge of cervical cancer this agrees with studies like Idowu et al (2016) who reported that about three quarter of their study participants are aware of cervical cancer . Similarly, the findings from the study shows that 54 % of women are aware of cervical cancer screening (Pap smear) however, they are not fully aware of the benefits of conducting the study. Also, the finding showed that the women in the study area had a positive attitude towards the screening. However, despite reporting having a positive attitude towards screening, only 15.3% had ever done Pap smear test before.

Low risk perception was the main reason attributed to non screening of most of the respondents who had never been screened. This finding is in keeping with what literatures had reported in different parts of the world. For instance, a study by Singh, Ranjan, Das & Gupta, (2014) among women visiting tertiary care in Delhi in 2014 shows that only 7.3% of the women interviewed had ever done Pap smear test before. Moreover, Shivanthan et al. (2014) reported that only 18.1% of the respondents in Sri Lanka had ever had a Pap smear test. Similarly, Karadag et al. (2014) in a study among Turkish women reported that 73% of the respondents had never been screened for cancer of the cervix before. In Nigeria, Wright, Aiyedehin, Akinyinka & Iluzumba, (2014) reported that only 5.1% of women in Lagos had ever undergone Pap smear testing. However, having a different report, Assoumou et al. (2015) reported that 65.1% of the women interviewed in Gabon had gone for Pap smear test.

This implies that the uptake of cervical cancer screening is high among the Gabon population. The reason for higher figure in the Gabonese study could have been due to a difference in the socioeconomic characteristics of the respondents; 63% of the respondents had university education and 51.6% were employed.

The observed low uptake of cervical cancer screening recorded in the current study could thus be attributable to such factors as low socioeconomic status of study participants. This is because educational and occupational status of people often determines their awareness level about a particular health condition and their financial capability to access healthcare services. The low uptake could also be due to poor availability of screening services within Jos North as most of the respondents reported not going for screening because they did not know where to get the services. Moreover, cervical cancer screening services are mostly available in tertiary health institutions with some form of high financial implications in most cases. Most of our respondents said that they could not access screening due to cost considerations.

Also, a sizable proportion (83.9%) of the participants reported not getting screened because of low risk perception. “need factor” as stated in the behavioural model has been documented as a key determinant of health behaviour of people. Furthering this point, McCaul et al. (1996) found a positive association between risk perception and uptake of screening for certain cancers. Hence, low risk perception could have resulted in the belief that there is no need for screening uptake among them. Also, spousal refusal is also a reason that could also explain the low screening uptake among our respondents.

In countries with strong cultural values and family ties as Nigeria, husbands are the key decision takers in most homes. Thus, women are often careful of services requested from healthcare providers in order not to be tagged as women of low virtues by their spouses and their significant others. Moreover, almost 69.8% of the women could not go for screening for fear of positive result after screening. Also, Vrinten et al. (2014) showed that thought of positive results after screening predicted low uptake of colorectal cancer screening among respondents in the United Kingdom. This could have also been responsible for the low cervical cancer screening observed among participants in the study area.

6. CONCLUSION

Women in Jos North, Plateau State Nigeria demonstrated knowledge about cervical cancer, however, there is low uptake of cervical cancer screening among them. This is despite the fact that early case detection through screening is the most cost effective activity for reducing the morbidity and mortality from cancer of the cervix. Thus, it is recommended that reproductive health experts and policy makers should demonstrate more commitment in creating awareness about cervical cancer and screening. They also need to make screening tests available at affordable costs through the establishment of more screening centres in the study area in particular and in Nigeria as a whole. Furthermore, there is need to integrate cervical cancer screening exercise into the mainstream healthcare services in the hospitals. Women who are at least exposed to sexual relations particularly and those with family history of cervical cancer must be encouraged to opt for cervical cancer screening at every available opportunity. Finally, there is need to increase the number of healthcare workers with requisite skills to conduct cervical cancer screening in Nigeria.

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