

Factors Influencing Uptake of Cervical Cancer Screening among Female Health Workers in University of Port Harcourt Teaching Hospital, Rivers State

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Abstract

This is a cross-sectional descriptive survey. The purpose of the study was to examine the factors that influence the uptake of cervical cancer screening among female health workers at the University of Port Harcourt teaching hospital (UPTH), Rivers state. A sample size of 352 was used for the study. A self structured questionnaire was the instrument used for data collection. The reliability indices were established using test-retest approach. The scores obtained were computed using Pearson's product-moment coefficient correlation to obtain the reliability co-efficient (r) of 0.94 which was considered adequate. Data analyses were done using statistical soft ware package, for Social Sciences version 20.0. Descriptive statistics of percentages, mean, standard deviation and criterion mean of 2.5. Inferential statistics (chi-square and Analysis of variance) were used to test associations. Major findings of the study revealed that unavailability of screening services and poor attitude of female health workers were among the major factors that hinder uptake of cervical cancer screening. Some of the recommendations made include: an intensive and extensive sensitization of female health workers about the necessity of cervical cancer screening; More information, education and communication materials like picto-pamphlets should be made available and distributed at strategic centers where women are and can be found; to overcome cultural barriers, there is need to involve community leaders, respectable men and women in each community who should be involved both in disseminating the information on cervical cancer screening and screening programmes and the provision of adequately equipped screening centers which should also be accessible to women.

Keywords: Attitude, Cervical Cancer, Female Health Workers, Factors, Influencing Uptake, Screening

1. Introduction

Documented evidence shows that cervical cancer is the second leading cause of death among women especially in developing countries. Such death is both a personal tragedy, and unnecessary loss to the family and community. It is necessary, because there is compelling evidence that cervical cancer is one of the most preventable and treatable forms of cancer if it is detected early and managed effectively.

The study on Hispanic women reported that few community members or asymptomatic women had ever been screened for cervical cancer; those who ever had a pap smear or were interviewed when they presented for screening also did not know that the test could help in preventing cervical cancer¹.

Available evidence indicates that certain factors influence the uptake of screening service among women such as low level of education, age, culture, limited access to CCS services, marital and health status²⁻⁴. The

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following were identified as reasons for non participation: administrative failures, vis a vis unavailability of necessary screening facilities, reagents, and equipments in the various clinical settings; availability of female health care providers, lack of adequate skills required by health care providers; considering oneself not to be at risk of developing cervical cancer, fear of detection of cancer, pain, embarrassment, poverty and economic reasons; the general poor attitude to preventive health measures and the fact that matters relating to sex and sexual organs are not to be openly discussed in some religious and cultures because they feel their cultural and religious values are threatened⁵.

In many developing countries Nigeria inclusive access to cervical cancer screening services is limited because health facilities lack required personnel, equipment and consumable supplies to run a successful screening programme³.

Socio economic factors also affects uptake; one of the barriers to screening is poor level of education, women who are less educated were less likely to participate in screening, also, the association between education and participation reflect the difficulties that the women with less education have in understanding the benefits of cervical cancer screening (CCS)². Previous research on relationship between socioeconomic factors and the use of health services has shown that education influences screening behavior through its effect on income and through its association with individual knowledge about cancer screening.

Women in various parts of Nigeria know little about cervical cancer and Pap smear⁶. The most important factors hindering the use of available cervical cancer screening services were lack of knowledge (49.8%) and the feeling that they had no problem (32.0%)⁷. The non existence of a national cervical cytology screening, the lack of political-will and funding, poor advocacy and poor man power were identified as the cause of the continuous high prevalence of this preventable cancer in Nigeria⁸.

Female health workers are expected to be in a better position to create a wider range of awareness about the importance of cervical cancer screening. Documented evidence has shown that this is not always the case. The knowledge of CCS among female nurses is high while uptake rate is abysmally poor, thus, there is need to further educate the nurses who will play a major role in

enlightening the public on the availability and need for cervical cancer screening by women⁹. All the respondents were aware of pap smear but only 14(17.7%) of them had used it, and repeat tests were only observed among respondents that screened as routine¹⁰.

‘Knowledge of cervical cancer screening is high among the respondents, however only 4.4% had availed themselves of the opportunity for the test’¹¹.

Despite knowledge of the gravity of cervical cancer and prevention by screening using a pap smear, attitudes and practices towards screening were negative. The medical workers who should be responsible for opportunist screening of women are not keen on getting screened themselves. They suggested that there is need to explain/ understand the cause of these attitudes and practices and identify possible interventions to change them; also, medical students and nurses training curricula needs review to incorporate practical skills on cervical cancer screening¹².

The nurses constitute the majority of respondents and they form the bulk of medical workers in most health units in Africa¹². Most of these nurses and midwives thought that speculum examination and pap smear are doctors procedures; Doctors in disciplines other than gynaecology thought that speculum examination was an activity of the gynaecologists only; In departments other than gynaecology, the negative practice of not screening the patient who came under their care could be attributed to their routines, but this would not explain the reluctance to get screened themselves despite the availability of a free service almost any time they wished to .They further observed that 81% eligible female respondents had never been screened, mostly because they did not feel vulnerable to the disease. It is also unlikely that these medical workers would feel motivated to screen others or advise the women accordingly.

Female health worker’s attitude to the uptake of CCS has a lot of implication to the reduction of the scourge of cervical cancer among women. So the examination of factors that influence their uptake of this service will provide evidence based information to improve uptake of CCS among the general women population. The purpose of this study is to examine the factors that influence the uptake of CCS and to determine the relationship between profession and uptake of CCS among female health care workers.

2. Materials and Methods

Research design used for the study was cross-sectional descriptive survey. The data were collected at one point in time. The design was used because the study involved description of the phenomenon in the natural setting without manipulation of variables.

The study was carried out at university of Port Harcourt Teaching Hospital (UPTH), Rivers State South-South Nigeria. The state has both indigenous and foreign oil servicing companies and this has enabled the state to enjoy a good number of social amenities and infrastructures like good road network, electricity supply through gas turbine among others. It has a colposcopy unit which was established in, 2006. Here, cervical cancer screening activities are conducted and these include: pre-screening counseling, screening (collection of specimen/ conducting the screening) post screening counseling, result reading and interpreting, following-up of results. It was selected for the study because it is the apex Health institution in Rivers State and a catchment area for the whole of the Niger Delta, including Abia, Akwa Ibom, Bayelsa, Cross River, Delta and Imo States.

Inclusion criteria: all health workers that have contact with the patients

Exclusion criteria: all health workers that do not have clinical contact with patients.

The population of study comprised of all female health workers who have clinical contact with patients, totaling 880, comprising of 580 nurses, 195 doctors, and 30 Medical laboratory Scientist, 55 pharmacists and 20 female radiographers. A sample size of 352 was used for the study. Stratified sampling procedure was used since the population is heterogeneous comprising of different professions: doctors, nurses, pharmacist, medical laboratory scientist and radiographers. A proportional stratified random sampling technique was used to select appropriate sample from each stratum as shown on the table.

Table 1.

Profession	Med-icine	Nurs-ing	Phar-macy	Med-lab	Radiog-raphy	Total
Populations	195	580	55	30	20	880
Proportion	0.22	0.66	0.06	0.03	0.03	1
Selected size	78	233	22	11	8	352

The face and content validity of the instrument were determined by three experts while test-retest method was used to collect data for the determination of the reliability coefficient. Pearson's product moment formula was used to calculate the reliability coefficient which was 0.94 which is adequate.

Ethical approval was obtained from the ethical committee of UPTH. Written and oral informed consent were obtained as appropriate.

The questionnaire was submitted to 2 experts in the field; their comments were noted and used for corrections before administering it. The questionnaire was administered with the aid of 8 trained research assistance with a 95% response rate. Data were analysed using SPSS version 20.

2. Results

Table 2 shows that the majority of the respondents were nurses (66.5%), this was followed by the doctors (21.3%) and the least were those in radiography (2.3%).

Table 2. Distribution of the respondents based on:

Profession	N	%	Remark
Nursing	234	66.5	Dominant
Medicine	75	21.3	
Pharmacy	22	6.3	
Medical laboratory	13	3.7	
Radiography	8	2.3	
Total	352	100.0	
Experience (years)	N	%	Remark
1-10 years	249	70.7	Dominant
11-20 years	75	21.3	
21-30 years	28	8.0	
Total	352	100.0	
Qualification	N	%	Remark
First degree	115	32.7	
Higher diploma	31	8.8	
Diploma	206	58.5	Dominant
Total	352	100.0	

Most of the respondents had 1-10 years of working experience (70.7%). This was followed by those who had 11-20 years of working experience (21.3%) and the least was those with 21-30 years of working experience. Majority of the respondents hold Diploma certificates (57.8%). This was followed by holders of first degree

(32.7%) and the least were holders of higher diploma certificates (8.8%).

Table 3 showed the mean, standard deviation and percentage responses on the factors influencing the uptake of screening for cervical cancer among female health workers. Table 3 further showed that the respondents strongly indicated that unavailability of screening services results to poor level to uptake (M=3.02, SD=.754). This was followed by the fact that socio-economic status has a strong influence over the uptake of screening (M=2.80, SD=.818). The least as agreed was the fact that Poor attitude of female health workers towards screening negatively affects uptake of screening (M=2.71, SD=.772).

The grand mean score of 2.60±0.80 indicated that the uptake of screening for cervical cancer among female health workers was faced with significant amount of problems. Table 3 further showed that the proximity in grand mean rating across profession of the respondents indicated that profession had no influence on the perceived factors affecting cervical cancer screening.

Table 4 showed mean, SD and ANOVA on the attitude of female health workers towards the uptake of CCS

based on profession. Table 4 further showed that since the p-value was greater than .05 in nine (9) out of 13 items, we can conclude that there is no significant relationship between profession and the attitude of female health workers towards the uptake of cervical cancer screening.

4. Discussion of Findings

4.1 Hindering Factors

Data in table 3 revealed that several factors hindered the uptake of screening for cervical cancer among female health workers including poor attitude of female health workers, socio-economic status and unavailability of screening services. This result is in agreement with the observation of other studies. WHO (2007)¹³ observed from their study that one of the barriers to screening included social stigma associated with reproductive health problems.

Specifically, the respondents agreed that poor attitude of female health workers towards screening negatively affects uptake of screening (M=2.71, SD=.772). This

Table 3. Mean, standard deviation and percentage responses on the factors influencing the uptake of screening for cervical cancer among female health workers

SN	Item	Medicine	Nursing	Pharmacy	Medical labo-	Radiogra-	Mean	Std	Decision
		N=102	N=316	N=30	ratory N= 17	phy N= 11			
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)			
15	Reproductive health problems are freely discussed in my culture	2.25(.624)	2.45 (.777)	2.60 (.724)	2.65 (.606)	2.36 (.505)	2.42	.737	#
16	Poor attitude of female health workers towards screening negatively affects uptake of screening	2.77 (.716)	2.67 (.788)	2.90 (.662)	2.71 (.849)	2.55 (.934)	2.71	.772	*
17	Socio-economic status has a strong influence over the uptake of screening	3.00 (.771)	2.75 (.835)	2.80 (.805)	2.59 (.795)	2.82 (.603)	2.80	.818	*
18	Feeling at risk and fear of vaginal examination are good and strong reasons for not being screened	2.02 (.944)	2.51 (.893)	2.23 (.728)	2.88 (.781)	2.55 (1.293)	2.40	.925	#
19	Unavailability of screening services results to poor level to uptake	3.19 (.609)	2.96 (.808)	3.13 (.629)	3.06 (.556)	2.82 (.751)	3.02	.754	*
20	There is a high level of benefits of cervical cancer screening among womenfolk	1.95 (.695)	2.33 (.850)	2.33 (.758)	2.24 (.562)	2.18 (.603)	2.24	.812	#
Grand mean and SD		2.53	2.61	2.67	2.69	2.55	2.60	0.80	

*Agree # Disagree

Table 4. Mean, SD and ANOVA on the attitude of female health workers towards the uptake of CCS based on profession

SN	Item	Nursing	Medicine	Pharmacy	Medical labo-	Radiogra-	F	p-val-	Decision
		N=234	N=75	N=22	ratory N=13	phy N=8			
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)			
1	I feel a sense of insecurity when attempting cervical cancer screening	3..28(.73)	3..37(.632)	3.41(.73)	3.15(.69)	3.13(.35)	.641	.633	ns
2	I am always under terrible strain in a cervical cancer screening test	1.69 (.753)	1.67 (.644)	1.45 (.510)	1.54 (.967)	1.63 (.744)	.622	.647	ns
3	The proposal that all women of menopausal and childbearing age should present themselves for cervical cancer screening is a good one	1.55 (.844)	1.55(.776)	1.23 (.429)	1.38 (.870)	1.50 (.756)	.896	.466	ns
4	Cervical cancer screening is for health workers in the obstetrics and gynecology(O&G) unit only	1.64 (.764)	1.47 (.777)	1.23 (.429)	1.38 (.870)	1.63 (.744)	2.147	.075	ns
5	Cervical cancer screening should form part of the routine examinations for women of menopausal and childbearing age	1.64 (.729)	1.51 (.742)	1.36 (.492)	1.38 (.870)	1.75 (.463)	1.448	.218	ns
6	Women that maintain good genital hygiene and one sex partner do not need cervical cancer screening	1.72 (.966)	1.47 (.759)	1.45 (.800)	1.54 (.877)	1.38 (.518)	1.558	.185	ns
7	Subjecting self for cervical cancer screening amounts to debasing one's womanhood	2.66 (.977)	2.49 (.844)	3.00 (.816)	2.31 (.947)	1.88 (.835)	2.990	.019	S
8	Participating in the cervical cancer screening should be made compulsory for all female health workers	2.29 (0.96)	2.11 (1.09)	2.41 (1.30)	2.31 (1.25)	2.50 (1.31)	.714	.583	ns
9	Non existence of national cervical cytology among others increase the prevalence of cervical cancer in Nigeria	2.28 (0.72)	2.35 (1.05)	2.00 (0.82)	2.23 (0.83)	2.00 (0.76)	1.026	.394	ns
10	Medical professionals have known everything harmful about cervical cancer screening	1.80 (0.68)	1.71 (1.09)	1.55 (0.51)	1.92 (0.76)	2.50 (0.53)	2.529	.040	S
11	Cervical can screening is a valuable and necessary for all women	2.40 (0.50)	2.87 (0.78)	2.45 (0.51)	2.62 (0.51)	2.63 (0.52)	9.635	.000	S
12	I look forward to being screened for cervical cancer screening	2.18 (0.76)	1.99 (0.97)	1.55 (0.60)	1.38 (0.51)	1.25 (0.46)	8.333	.000	S
13	I would like to study about cervical cancer screening to develop my knowledge about womanhood	2.29 (0.99)	2.45 (0.84)	2.45 (0.80)	1.77 (0.93)	1.63 (0.74)			

ns=not significant, p>.05, s=significant, p<.05, df1=4 df2=347

observation raises a lot of concern over the uptake of screening among female health workers because they are the important predictors of the use of cervical cancer screening they also have pivotal role in any planned future programme of preventive health measures.^{11,12} This poor attitude seems to pose a big problem since they are expected to be role models in health behaviours and are also knowledgeable about the importance of screening in cervical cancer prevention. Thus their poor attitude has negatively affected the women as evidenced by the high incidence, morbidity and mortality of the disease.

The respondents agreed that socio economic status has a strong influence on the uptake of cervical cancer screening ($M=2.80$, $SD=.818$). The present result is consistent with other findings of^{5,13,2} which observed that compared with women who were tested, screened women were better educated. Women who were less educated were less likely to participate in screening. This finding is consistent with other findings. Previous research on the relationship between socio economic factors and the use of health services has shown that education influences screening behaviour through its effect on income and through its association with individual knowledge about cancer screening. Reasons for non- participation includes poverty and economic conditions⁵. The awareness significantly varied with the level of educational attainment⁷.

The respondents favored the view that unavailability and inaccessibility of screening services result to poor level of uptake ($M=3.02$, $SD=.754$). This finding is in consistent with other findings from other research. Various studies have identified reasons for non-participation which included unavailability of necessary screening facilities, reagents and equipment in the various clinical settings⁵. These are observable factors that promote and encourage uptake of cervical cancer screening among women. Therefore, when they are lacking the uptake is poor while the incidence, diseases burden and mortality rates are high. A considerable reduction in cervical cancer incidence and deaths has been achieved in developed nations with systematic cytological smear screening programme¹⁴. This finding was also supported by the observations of other findings which reported the non- existence of a national cytology screening, the lack of political – will and funding, poor advocacy and man power were identified as the cause of the continuous high prevalence of this preventable cancer

in Nigeria⁸; that awareness creation and local provision of services will improve knowledge and practice of cervical cancer screening among the respondent¹⁵; despite been the commonest cancer of women in Uganda there is no systematic screening programme for cervical cancer, Pap smear based screening programmes are not feasible in low resource settings like Uganda due to economical and logistic reasons like lack of trained pathologist and equipped laboratories²⁰⁰⁶)¹².

This therefore, calls for attention of the administration of health institutions and policy makers to ensure that adequate consideration is given to all that are required to promote and encourage screening by giving high priority to cervical cancer screening, making policies, creating programme and allocating sufficient funds to encourage procurement of vaccines, screening equipments, promoting follow up of result of screening, early diagnosis and treatment of identified cases.

The respondents did not favour the opinion that there is high level of awareness of cervical cancer screening and its benefit among womenfolk ($M=2.24$, $SD=.812$). This observation is in consistent with other reports which stated that among 500 respondents only 37.5% were aware of cervical cancer, 13.9% know that it is preventable, 25% know about pap smear, 20.8% know centres that conducted pap smear and only 0.6% had done pap's smear in the past¹⁵; only 15.5% of their respondents were aware of availability of screening services and only 4.2% had even done Pap smear⁷; some of the women questioned, claimed ignorance of these preventive strategies⁵; available evidence indicated that women in various part of Nigeria know little about cervical cancer and Pap smear². Lack of knowledge about preventing cervical cancer was one of the main barriers to screening¹³; it is very important to increase awareness on the need for Pap smear among women of child bearing age group¹⁶.

The respondents were of the view that fear of vaginal examination and feeling at risk are strong reasons for not being screened ($M=2.40$, $SD=.925$). This observation was supported by the findings of other studies; considering oneself not to be at risk of developing cervical cancer, fear of embarrassment, pain or the detection of cancer are among the barriers to being screened⁵; reasons for non-participation included lacking awareness of the benefits of the test, considering oneself not at risk and fearing embarrassment. This is in consonance with observations in the contemporary time¹³. General observation reveals

that people do not seek health care services unless they are experiencing some symptoms such as pain. This could be due to lack of knowledge that some diseases (Like Cervical Cancer) develop gradually ranging from precancerous stage often without pain to cancerous stage often heralded by pain and therefore need early detection through screening for better treatment outcome.

4.2 Influence of Profession on the Attitude and Practice of Health Workers towards the Uptake of Cervical Cancer Screening

Result on Table 4 indicated that profession does not significantly influence the attitude of female health workers towards the uptake of cervical cancer screening.

Data in Table 4 further showed that since p-value is greater than the .05 level of significance in each case (item), profession does not significantly influence the practice of cervical cancer screening by female health workers. The respondents were knowledgeable about the gravity of cervical cancer and prevention by screening using a pap smear, their attitudes and practices towards screening were negative; the medical workers who should be responsible for opportunist screening of women are not keen on getting screened themselves¹².

Knowledge of cervical cancer screening among female nurses is high while uptake rate is abysmally poor⁹. Thus, there is need to explain/ understand the cause of these attitudes and practices and identify possible interventions to change them. Also, this calls for more enlightenment and to further educate the health workers who will play a major role in enlightening the public on the availability and need for cervical cancer screening services¹⁷.

4.3 Motivating Factors

Staff included medical Female health workers who were mainly in-charge of inviting women and providing health counseling; also women from all of the study arms were invited to a meeting led by female health workers in each village, where the purpose and characteristic of the screening were explained and women could ask questions¹³. This enabled them to witness a very good screening coverage of about 80% of the target population. This is a situation where female health workers were actively involved and it yielded a great result of turnout of participants. This agrees with observation from the

colposcopy unit of UPTH that recorded a higher number of screened women after an outreach programme. They screened only 100 women in 2007 but after several outreach programmes, there was a remarkable increase of screening in the subsequent years¹⁸.

4.4 Implications of Findings

The findings of this study have shown various factors that form barriers to uptake of CCS.

Cultural barriers to discussing reproductive health issues freely should be discouraged through mass media and involving community leaders and respectable men and women in each community in screening programmes, health workers attitude towards screening has negatively impacted the public and so attitude of female health workers should change, there should be a better awareness and advocacy for cervical cancer screening and the services made available and accessible for utilization. Furthermore adequate funds should be made available for effective running of screening centres.

5. Summary

This research studied the factors that influence the uptake of cervical cancer screening among female health workers in UPTH. Its main objectives were to;

- Determine the factors that influences the uptake of CCS among the studied population
- It also sought to determine how profession influences attitude of female health workers towards the uptake of cervical cancer screening in the studied hospital

Literatures relevant in the study were reviewed to cover the objectives of the study. The research design was descriptive survey. Being a heterogeneous population of female health workers, (Nurses, Doctors, Pharmacists, Medical-laboratory scientists and Radiographers) a proportional stratified random sampling technique was used to select an appropriate sample size from each stratum.

Major findings of the study showed that; various factors such as unavailability of screening services among others hinder the uptake of cervical cancer screening.

Profession does not have any significant influence on attitude of cervical cancer screening among female health workers in the studied hospital

6. Conclusion

Based on the findings, the following conclusions were made:

There are various hindering factors to uptake of cervical cancer screening which include among others; cultural influences, attitude of female health workers, socio economic factors, poor awareness, unavailability, advocacy, policy and funding. Profession has no influence on attitude of cervical cancer screening among female health workers in the studied hospital

6.1 Recommendations

Based on the findings of the study, the discussions and implications drawn from the study, the following recommendations were made;

- There is need for an intensive and extensive sensitization of female health workers about the necessity of cervical cancer screening
- Health institutions should establish clear guidelines on screening for cervical cancer, such as making it one of the routines for women of child bearing age and as such providing the necessary equipments for the procedure to all the different units and also training workers on the skills.
- More information, education and communication materials like picto-pamphlets should be made available and distributed at strategic centers where women are and can be found.
- To overcome cultural barriers, there is need to involve community leaders, respectable men and women in each community. They should be involved both in disseminating the information on cervical cancer screening and screening programmes.
- There should be adequately equipped screening centers which should also be accessible to the women.
- There should be a national cervical cytology screening centers; adequate funding and advocacy by the government and non-governmental agencies so as to reduce the high incidence of cervical cancer and its consequent negative effects on the people.
- Strategies such as free or subsidized screening and / or treatment services should be utilized to encourage women and also increase screening uptake and reduce high incidence and death.

7. References

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