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Knowledge and Perception of Cervical Cancer and Screening: Predicting Screening Uptake Among Women in A Selected Nigerian Community

Ibe Sally NO^{1*}, Osuala Eunice O², Ezurike Chikodi IM³, Nwugo Chinyere R¹, Ezeama Martina C⁴, Ezenwuba Clementina O⁴ and Chukuka Kingsley N¹

¹Department of Public Health, School of Health Technology, Federal University of Technology Owerri, Nigeria.

²Department of Nursing Science, Faculty of Allied Health Sciences, PAMO University of Medical Sciences, Port-Harcourt Nigeria.

³Department of Educational Foundation and Counselling, Faculty of Education, Imo State University, Owerri Nigeria.

⁴Department of Nursing Science, Faculty of Health Sciences, Imo State University, Owerri Nigeria.

***Correspondence:**

Ibe Sally NO, Department of Public Health, School of Health Technology, Federal University of Technology Owerri, Nigeria, Tel: 234 803 675 1743.

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ABSTRACT

Cervical cancer is the second most common cancer among women in Nigeria and there is low uptake of cervical cancer screening. This study determined the knowledge and perception of cervical cancer and screening among women of child bearing age in Oraifite community, South-Eastern Nigeria, in order to predict uptake of cervical cancer screening. Descriptive study design was employed for the study and sample size of 400 was drawn from the target population of 15,955. The respondents were selected using the multistage sampling technique. Instrument for data collection was the structured questionnaire and data collected were analyzed using Statistical Package for Social Sciences (SPSS). The result showed that more respondents 159 (39.75%) had secondary level education, more 262 (65.5%) were married, more 138 (34.5%) had parity of 3-4, more 133 (33.3%) were trading/business as occupation. 221 (55.3%) had ever heard of cervical cancer, while only 32 (8%) had ever heard of cervical cancer screening. Only 28 (7%) had overall high knowledge score (70% & above) of cervical cancer and screening and 99 (24.8%) had overall moderate knowledge score (50 to 69%), while 273 (68.2%) had overall low knowledge score (49% & below). Overall total positive perception responses (3147, 71.52%) was higher than overall total negative responses (1253, 28.48%). Socio-economic factors, knowledge and perception are crucial in uptake of screening based on the assumption that they predict behavior. The very low number of respondents who had ever heard of cervical screening and overall low knowledge level predict low uptake of screening. Positive perception alone without knowledge will be a weak driving force based on the assumption that information is power. There is need for programs that will increase knowledge and build capacity for informed choices such as uptake of cervical cancer screening.

Keywords

Cervical cancer, Knowledge, Nigeria, Perception, Screening.

Introduction

Low uptake of cervical cancer screening among women in developing countries such as Nigeria has posed great concern to health practitioners and public health program planners. Cervical cancer is a malignant neoplasm of the cervix uteri or cervical

area and it is about the second most common cancer in women, with about 500,000 new cases diagnosed each year globally, of which 80percent or more occur in developing countries [1]. Sub-Saharan Africa has the highest burden of mortality associated with cervical cancer in the world [1,2]. In Nigeria, it is estimated that 8000 new cases are diagnosed each year [3] and the World Health Organization (WHO) gave annual estimate of new cases of cervical cancer in Nigeria to be 14,550/100,000 women [4].

Cervical cancer has high mortality rate among Nigerian women [5], and there are 40.43 million women aged 15 years or older in Nigeria who are at risk of developing cervical cancer [6].

Nevertheless, cervical cancer remains the most preventable cancer of the female genital tract [7], but treatment is successful and effective only if the cancer is detected at its pre invasive stage. Early detection through screening has been acclaimed to be effective in preventing death arising from cancer of the cervix, because better treatment outcome is achieved when cervical cancer is detected at the pre-clinical stage than when the condition is well-established [8].

This reality underscores the importance of cervical cancer screening, but despite this acclaimed benefit of this preventive service, there is still low uptake by women in Nigeria [9,10]. The prevalence and associated mortality due to cervical cancer has reduced in the developed countries because of the extensive uptake of screening services as well as provision of adequate treatment, a situation yet to be in the developing countries [7,11].

Certain factors have been documented as constraints in the utilization of cervical cancer screening services by women in Nigeria which cut across social, environmental, economic and structural spheres. Accurate information about cervical cancer prevention, targeted counselling as well as conducive environment will enable women make and realize healthy lifestyle choices such as uptake of cervical cancer screening. This study determined knowledge and perception of cervical cancer and screening in order to predict the likelihood of uptake of cervical cancer screening among women of child bearing age in Oraifite community, Nigeria.

The theoretical framing of this study is based on some constructs of the Health Belief Model as developed by Hochbaun, Rosenstock and Kegels [12,13]. The likelihood of taking preventive health action is greatly a function of modifying factors and perceptions [14,15]. Favorable socio-economic factors, high knowledge and positive perception impact positively on self- efficacy. Self- efficacy is the belief or confidence in one's ability to take action [16] that will produce the desired outcome [12,14]. People hardly try a new thing except they think they can do it. If a new behavior is believed to be useful (perceived benefit), but the thinking is that there is no capacity to perform it (perceived barrier), the chances are that it will not be tried.

The preventive health action in the context of this study is the uptake of cervical cancer screening, while the modifying factors are the socio-economic factors (age, highest level of education, marital status, parity, occupation and monthly income) and knowledge of cervical cancer and screening. Perception of respondents focused on efficacy of screening in early detection of cervical cancer, benefits of screening, fear of outcome or result of screening and support of husband among others. The findings of this study would form beneficial input to cervical cancer control program in Nigeria.

Materials and Methods

The study adopted descriptive study design to determine socio-economic characteristics of respondents, their knowledge and perception of cancer and cancer screening, with the view of predicting their likelihood of utilizing cervical cancer screening services. Oraifite is a community in Ekwusigbo Local Government Area of Anambra State, South-East Nigeria, located about 15 km south of Onitsha (Onitsha is one of the major commercial cities in Nigeria). Oraifite had a population of 72,519 out of which 15,955 were women of child bearing age.

Sample size was 400 and was determined using Taro Yamane formula [17]. Multi-stage cluster sampling technique was employed to select 400 respondents from the target population. Proportional sample was taken from each of the three political wards which made up the community using systematic sampling method. Instrument for data collection was the questionnaire. The instrument was validated and reliability was established using Cronbach Alpha reliability co-efficient with value of $r = 0.7$. Instrument was administered to the respondents in their homes after obtaining their verbal consent. Data was analyzed using the Statistical Package for Social Sciences (SPSS) and presented in frequency tables.

Results

Socio-Economic Characteristics of the Respondents

Result presented in Table 1 showed the socio-economic profile of the respondents. Ninety-one (91, 22.8%) were in the age group of 25 – 29 years, 82 (20.5%) in age group 30-34 years, 73 (18.2%) in 20-24 years age group, 49 (12.2%) in age group 45 - 49 years, 44 (11%) were between 35-39 years, 35 (8.8%) were aged 40-44 years and 26 (6.5%) aged 15-19 years. One hundred and fifty-nine respondents (159, 39.75%) had secondary education followed by those with tertiary education 141 (35.25%), 8120.25%) had primary level education and 19 (4.75%) were with no formal education. Married respondents were 262 (65.5%); 98 (24.4%) were single and 32 (8%) were separated, while 8 (2.1%) were divorced.

More respondents (138, 34.5%) had parity of 3-4, followed by those with parity 1-2 (134, 33.5%), then nulliparous respondents (80, 20%), while those with parity of above 4 were 48 (12%). One hundred and thirty-three (133, 33.3%) respondents were traders/ business women, public/civil servants were 98 (24.5%), artisans were 93 (23.2%) while 24 (6%) were unemployed. More of the respondents 170 (42.5%) earned below ₦18,000 per month, followed 154 (38.5%) who earned ₦18,000 - ₦37,000, then 40 (10%) earned ₦38,000 - ₦57,000 and 18 (4.5%) earned ₦58,000 - ₦77,000, 16 (4%) respondents ₦78,000 - ₦97,000, while 2 (0.5%) earned above ₦97,000 (Table 1).

Knowledge of Cervical Cancer and Screening Services

Table 2 showed the result of knowledge of cervical cancer while Table 3 showed the result of knowledge of cancer screening services. More respondents, 221 (55.3%) had heard of cervical cancer, while 179 (44.7%) had not. On the contrary, only 32

(8.0%) had ever heard of cervical cancer screening, while 368 (92.0) had never heard. Out of the 221 respondents who were aware of cervical cancer 118 (53.4%) indicated that their source of information was television/radio, 60 (27.1%) got their information from health workers while the rest 43 (19.5%) read about it in printed materials. Two hundred and nineteen respondents (219, 54.8%) correctly pointed out skin rash as not a sign of cervical cancer among lists of the signs and symptoms, while the rest 181 (45.2%) could not. Also, 182 (45.5%) respondents correctly identify blood transfusion as the wrong option among cervical cancer risk behaviors, while the rest 218 (54.5%) could not.

Three hundred and thirty-four (334, 83.5%) respondents correctly named the cervix as the site/organ for cervical cancer, while the rest 66 (16.5%) could not but stated the wrong organs of the body. One hundred and forty-nine (149, 37.2%) respondents out of the total 400 respondents correctly indicated obesity as a wrong answer among a list of complication of cervical cancer, while the rest 251 (62.8%) could not.

Sixty (60, 15%) respondents correctly stated Pap smear as a method of screening for cervical cancer, while the rest 340 (85%) gave wrong responses. Only 13 (3.3%) of the respondents could correctly state the intervals for cervical cancer screening as 3-5years while the rest 387 (96.7%) could not. Majority of the respondents (335, 83.75%) could correctly identify Nnamdi Azikiwe University Teaching Hospital Nnewi as possible center for cervical cancer screening and 3 (0.75%) respondents correctly named Boromi General Hospital, Onitsha, while the rest 62 (15.5%) did not know any possible cancer screening center near to them. Twenty-eight (28, 7%) had high overall knowledge level with scores of 70 percent and above, 99 (24.8%) had moderate overall knowledge with scores of 50-69 percent, while 273 (68.2%) respondents had low knowledge with scores of 0-49 percent (Table 3).

Perception towards Cervical Cancer Screening

Result of perception of respondents towards cervical cancer screening was presented in Table 4. One hundred and twenty-five (125, 31.25%) respondents strongly agreed that cervical

Variables		Frequency	Percentage (%)
Age (in years)	15 – 19	26	6.5
	20 – 24	73	18.2
	25 – 29	91	22.8
	30 – 34	82	20.5
	35 – 39	44	11
	40 – 44	35	8.8
	45 – 49	49	12.2
	Total	400	100
Highest level of education	No formal education	19	4.75
	Primary level education	81	20.25
	Secondary level education	159	39.75
	Tertiary level education	141	35.25
	Total	400	100
Marital status	Single	98	24.4
	Married	262	65.5
	Separated	32	8
	Divorced	8	2.1
	Total	400	100
Parity (number of births)	None	80	20
	01-Feb	134	33.5
	03-Apr	138	34.5
	Above 4	48	12
	Total	400	100
Occupation	Unemployed	24	6
	Trading/Business	133	33.3
	Public/Civil Servant	98	24.5
	Artisan	93	23.2
	Others	52	13
	Total	400	100
Income per month (in naira)	Below ₦18000	170	42.5
	₦18000 – ₦37000	154	38.5
	₦38000 – ₦57000	40	10
	₦58000 – ₦77000	18	4.5
	₦78000 – ₦97000	16	4
	Above ₦97000	2	0.5
	Total	400	100

Table 1: Distribution of respondents by their socio-economic characteristics

Variables		Frequency	Percentage	Remark
Have you heard of cervical cancer?	Yes	221	55.3	
	No	179	44.7	
	Total	400	100	
What was your source of cervical cancer information?	Television/Radio	118	53.4	
	Health workers	60	27.1	
	Printed materials	43	19.5	
	Other sources	0	0	
	Total	221	100	
Which of these is not a sign or symptom associated with cervical cancer?	Vaginal bleeding between periods	20	5	
	Vaginal bleeding after menopause	71	17.6	
	Persistent vaginal discharge	49	12.2	
	Appearance of skin rash	219	54.8	Correct response
	Menstrual periods heavier than usual	41	10.4	
	Total	400	100	
Which of these is not cervical cancer risk behaviour?	Having multiple sexual partners	122	30.5	
	Early age at first sexual intercourse	58	14.5	
	Cigarette smoking	21	5.2	
	Long-term use of contraceptive pill	17	4.3	
	Blood transfusion	182	45.5	Correct response
	Total	400	100	
Site (body organ) for cervical cancer	Breast	10	2.5	
	Skin	53	13.3	
	Cervix	334	83.5	Correct response
	Brain	3	0.7	
	Total	400	100	
Which of these is not a complication of cervical cancer?	Severe pain	196	49	
	Offensive vaginal discharge	12	3	
	Kidney failure	43	10.8	
	Obesity	149	37.2	Correct response
	Total	400	100	

Table 2: Distribution of respondents by knowledge of cervical cancer

Variables		Frequency	Percentage	Remark	
Have you heard of cervical cancer screening?	Yes	32	8		
	No	368	92		
	Total	400	100		
Which of these investigations is for cervical cancer screening?	X-ray	199	49.7		
	Pap-smear	60	15	Correct response	
	Blood test	126	31.5		
	Sputum test	15	3.8		
	Total	400	100		
Appropriate interval for cervical cancer screening for women aged 30-65 years	Monthly	47	11.7		
	Yearly	312	78		
	3-5 years	13	3.3	Correct response	
	None of the above	28	7		
	Total	400	100		
Nearest health facility with cervical cancer screening services	Nnamdi Azikiwe University Teaching Hospital Nnewi	335	83.75	Correct response	
	Boromi Hospital Onitsha	3	0.75		
	Do not know	62	15.5		
	Total	400	100		
Overall knowledge level of cervical cancer and screening	Knowledge level	F	Percentage (%)		
		High (70% and above)	28	7	
		Moderate (50-69%)	99	24.8	
		Low (49% and below)	273	68.2	
		Total	400	100	

Table 3: Distribution of respondents by knowledge of cervical cancer screening services

cancer screening should form part of routine examination for women, 205 (51.25%) agreed, 69 (17.3%) disagreed and 1 (0.3%) strongly disagreed with a total of 330 (82.5%) responses depicting positive perception, while 70 (17.5%) showed negative perception. Response to, if subjecting one's self to cervical cancer screening was not debasing to womanhood, showed that 138 (34.5%) respondents strongly agreed, 73 (18.25%) agreed, 132 (33%) disagreed while 57 (14.25%) strongly disagreed with a total of 211 (52.8%) responses being positive perception responses, while 189 (47.25%) were negative. In response to cervical cancer being curable if detected at the pre symptomatic state; 88 (22%) respondents strongly agreed, 302 (75.5%) agreed, 8 (2%) disagreed, while 2 (0.5%) strongly disagreed with total positive perception responses of 390 (97.5%), while 10 (2.5%) were negative perception responses.

In response to, if cervical cancer screening is beneficial for early detection of cervical cancer; 134 (33.5%) strongly agreed, 210 (52.5%) agreed, 53 (13.25%) disagreed while 3 (0.75%) strongly disagreed with a total of 344 (86%) being positive perception responses while 56 (14%) constitute negative perception responses. Regarding the statement that women should go for cervical cancer screening as a preventive measure; 156 (39%) strongly agreed, 201 (50.25%) agreed, 43 (10.75%) disagreed, while none (0%) strongly disagreed with a total positive responses of 357 (89.25%), while 43 (10.75%) were negative perception responses. In response to fear associated with cervical cancer screening is unfounded; 81 (20.25%) strongly agreed, 95 (23.75%) agreed, 172 (43%) disagreed, while 52 (13%) strongly disagreed with total of 176 (44%) positive perception responses while 224 (56%) had negative perception. Responding to if making screening service free of charge will increase uptake; 98 (24.5%) of the respondents strongly agreed, 174 (43.5%) agreed, 119 (29.75%) disagreed, while 9 (2.25%) strongly disagreed with total respondents with positive perception responses being 272 (68%), while those with negative perception responses were 128 (32%). On if having cervical cancer screening center located in close proximity will increase uptake; 182 (45.5%) strongly agreed, 143 (35.75%) agreed, 63 (15.75%) disagreed, while 12 (3%) strongly disagreed with total positive perception of 325 (81.25%), while negative perception was 75 (18.75%).

Perception on if husband will support going for cervical cancer screening; 49 (12.25%) strongly agreed, 111 (27.75%) agreed, 173 (43.25%) disagreed, while 67 (16.75%) strongly disagreed with total of 160 (40%) respondents having positive perception, while 240 (60%) had negative perception. Regarding if mother will support her going for cervical cancer screening; 216 (54%) strongly agreed, 66 (16.5%) agreed, 109 (27.25%) disagreed, while 9 (2.25%) strongly disagreed with total positive response of 282 (70.5%), while 118 (29.5%) of the respondents had negative perception. On if some persons avoid going for cervical cancer screening for fear of possible outcome; 132 (33%) strongly agreed, 168 (42%) agreed, 74 (18.5%) disagreed and 26 (6.5%) strongly disagreed with 300 (75%) having positive perception, while 100 (25%) had negative perception. Overall result on perception of

cervical cancer screening showed grand total of 4400 responses with 3147 (71.52%) being positive perception responses and 1253 (28.48%) being negative perception responses (Table 4).

Discussion

Socio-economic characteristics of respondents

Age groups were almost evenly distributed and did not reflect any particular pattern of distribution worthy of note and the respondents were women of reproductive age 15 to 49 years. More respondents had secondary level education (159, 39.75%) followed by tertiary level education (141, 35.25%) and those with no formal education were few (19, 4.8%) and those with primary education were 81 (20.25%). It is expected that at the level of education presented by majority there should be high level knowledge and positive perception of cervical cancer and the screening. This was not so as knowledge of cervical cancer and cervical cancer screening was low which aligned with the low number of respondents who had ever heard of cervical cancer and lower still (only 8%) for those who had ever heard of cervical cancer screening. The women cannot utilize the cervical cancer screening services when they are not informed about it, even with positive perception.

Majority of the respondents 262 (65.5%) were married and being in such union has implication for decision making in a society such as Nigeria where usually wives are under the authority of their husbands even in seeking health care. Support or non-support of husband remained a crucial issue in uptake of cervical cancer screening. Parity (number of births) impacts on the time and resources available for taking such preventive health action. Attention is usually given first to what concerns the health of children before that of adults who wait most times till symptoms appear or in emergency health situations. The predominant occupation of the respondents was trading/business 133 (33.3%). This was expected as the study area borders Newi city which is an industrial and commercial center, and only 15km to Onitsha, another major commercial center in the country, with cost of transportation to Onitsha being about ₦100 (less than half of a US\$). Traders and business persons spend greater part of their time pursuing their trade and business interest. Cervical cancer screening is not considered an action demanding urgent attention especially where there are no associated complaints. More respondents 170 (42.5%) earn below ₦18000 (less than USD50), which was the minimum wage in the country before the very recent review that raised it to ₦30000. Income reflects the volume of their trade/business which was mostly at a small scale and the reported income of majority would not pay for health care services, but for other pressing family needs. Similarly, economic challenges and social responsibilities are found to cause self-neglect among women [18]. There is no social security in Nigeria and the National Health Insurance Scheme did not cover those in the private sector. Also, other factors which can be linked to occupation and income, such as lack of time, commitments of work, taking care of children, financial constraints were found to influence uptake of screening [19,20]. Awareness of cervical cancer and uptake of screening were reported to be low amongst women of low income [21]. Literacy level as well as income levels are strongly associated with

Cervical cancer screening should be part of routine investigations for women	125 (31.25)	205 (51.25)	69 (17.25)	1 (0.25)
Subjecting self for cervical screening does not debase womanhood	138 (34.5)	73 (18.25)	132 (33.0)	57 (14.25)
Cervical cancer detected at the pre-symptomatic state is curable	88 (22)	302 (75.5)	8 (2)	2 (0.5)
Cervical cancer screening is beneficial for early detection of cervical cancer	134 (33.5)	210 (52.5)	53 (13.25)	3 (0.75)
Women should go for cervical cancer screening as a preventive measure	156 (39)	201 (50.25)	43 (10.75)	0 (0)
The fear associated with cervical cancer screening is unfounded	81 (20.25)	95 (23.75)	172 (43)	52 (13)
Making cervical screening services free will increase the uptake	98 (24.5)	174 (43.5)	119 (29.75)	9 (2.25)
Having the cervical cancer screening centre close will increase uptake	182 (45.5)	143 (35.75)	63 (15.75)	12 (3)
My husband will support my going for cervical cancer screening	49 (12.25)	111 (27.75)	173 (43.25)	67 (16.75)
My mother will support my going for cervical cancer screening	216 (54)	66 (16.5)	109 (27.25)	9 (2.25)
Some persons avoid going for cervical cancer screening for fear of possible outcome	132 (33)	168 (42)	74 (18.5)	26 (6.5)
Overall result of perception of cervical cancer screening by respondents		Perception	Frequency of response	Percentage
		Positive perception	3,147	71.52
		Negative perception	1,253	28.48
		Total	4,400	100

Table 4: Distribution of respondents by their perception of cervical cancer screening.

knowledge of cervical cancer and screening [22]. Socio-economic factors such as age, highest level of education, marital status, parity, occupation and monthly income (as determined in this study) are modifying factors that impact on likelihood of uptake of cervical cancer screening, by influencing individuals' perception drawing from the Health Belief Model^{14,15}. Women need socio-economic empowerment to enable them make healthy choices and successfully follow-up such choices.

Knowledge of cervical cancer and cervical cancer screening

More than 50 percent of the respondents 218 (54.5%) had heard of cervical cancer but only 32 (8%) had heard of cervical cancer screening. This showed that cervical cancer information being disseminated to the population was not comprehensive. It is not sufficient to disseminate cervical cancer information without including information on preventive measures which encompass early detection through screening and how screening services can be accessed. Those who had heard of cervical cancer 158 (29.5%) did so from health workers while 118 (29.5%) heard from the Television/Radio. Health workers give health talks to mothers that attend health facilities particularly those visiting for maternity care. Also, the radio and television are generally the main source of information including health information for communities in Nigeria. A study earlier conducted in Lagos Nigeria, reported that most of the respondents who were aware of cervical cancer got their information from the electronic media [23]. In predicting preventive health behavior, information on cervical cancer and screening should not only increase knowledge of cervical cancer but should as well promote self-efficacy, while knowledge influences perception. The overall low knowledge reported in this study aligns with findings of earlier studies conducted in some parts of Africa [24,25]. Increased knowledge of cervical cancer screening remains one of the driving forces that will propel women to uptake screening. Other innovative strategies for dissemination of information in the communities other than health workers and the radio/television should be explored.

Perception of cervical cancer and the screening services

The result showed more positive perception responses than negative perception responses. Preventive health action such as cervical cancer screening will be up taken by those who perceive; the need for screening, the enormous benefits of early detection of cervical cancer through screening, no negative outcome and the support of family. Perception is modified by knowledge, hence the assumption that knowledge precedes perception and that both knowledge and perception predict and precede behavior. Increasing people's knowledge on a health issue is expected to yield positive perception and subsequent preventive health action. Items in this study that elicited more positive perception include; cervical cancer screening to be routine investigation for women, screening being important for early detection, early detection aids cure, screening being preventive measure, free screening service will increase uptake, locating screening center close will increase uptake, mother's support will aid uptake and fear of possible outcome of result being constraint to uptake. Some earlier works reported positive perceptions of some aspect of cervical cancer screening [26,27]. Negative perception reported in this study was mainly on fear being associated with the screening procedure and husband not supporting uptake of screening. This finding aligned with result of earlier study conducted in Nigeria and other parts of the world which showed that women had fear of outcome of screening results because of perceived negative consequences associated with such positive results and partners' not consenting [19,20,28-30]. Fear can be allayed with good counselling and there is need to involve husbands when counselling those who in marriage to increase husband support.

More respondents agreed that making cervical cancer screening services free would increase uptake of cervical cancer screening. This was expected because cost of medical service is a major barrier to access to healthcare in Nigeria. This finding corroborates with the findings of an earlier study which showed that the commonest reasons for uptake of screening services was free or subsidized cost

for services [31]. More respondents agreed that locating screening center close to the people would increase uptake of the services. This is expected because of its implication to cost of transportation and travel time which agrees with the report that about 60-75% of women in sub-Saharan Africa with cervical cancer lack financial and geographical access to health care [32].

Predicting utilization of cervical cancer screening based on socio-economic profile, knowledge and perception of cervical cancer and screening

Uptake of cervical cancer screening is a preventive health behavior which is consciously undertaken for its health benefit of early detection and prompt treatment. This study attempts to predict the likelihood of taking such health preventive action. The socio-economic profile of the respondents as reported predict low uptake of cervical cancer screening because socio-economic characteristics modify the individual's perception. Overall low knowledge level predicts low uptake going by the assumption that information is power and because knowledge predict and precede perception. A person is less likely to act on what she is not aware of or has no knowledge about.

Positive perception responses were higher than negative perception responses, but will not singly result in uptake screening. The assumption from the result reported in this study is that not more than 8percent of respondents who had heard of screening could or have accessed screening, which aligns with the low uptake of screening reported in earlier studies in Nigeria [9,10].

Conclusion

Women as studied do not have adequate social and economic empowerment that will enable them make healthy choices relating to uptake of cancer screening. Overall knowledge of cervical cancer and the screening among women of child bearing age in Oraifite community Nigeria was low, while positive perception was higher than negative perception. However, positive perception alone is not sufficient to positively influence uptake of cancer screening because perception is assumed to be a function of knowledge which is vital for the likelihood of uptake of screening.

Increased public knowledge and the ability of individuals to make healthy lifestyle choices as well as creating supportive environments for making such healthy choices are prerequisites for early detection through cervical cancer screening. Cervical cancer information dissemination among women studied seemed not comprehensive enough to yield desired recommended action. From the findings of this study it is predicted that the low cervical cancer and screening knowledge level and positive perception reported are not adequate to drive the women to uptake cervical cancer screening.

Recommendations

Efforts should be geared towards dissemination comprehensive cervical cancer information through innovative strategies which will increase knowledge and motivate the women to utilize the screening services. Moreover, individual and group counselling

targeted to every woman including husbands for those in marriage. This will assist them to take informed decision and increase their self-efficacy.

There is need to redesign, enrich the content and approach of cervical cancer and the screening information, education and communication (IEC), to achieve desired goal. Non-governmental organizations and community leaders should participate in information dissemination.

Husbands should be involved in promoting cervical cancer screening in Nigeria for them to support their wives, if not many women who may be initially motivated will be eventually discouraged by their husbands.

Cancer screening should be made free or cost subsidized, as well as establish more screening centers located closer to where the people live to enable more women access the services.

References

1. Okonofua F. HPV Vaccine and Prevention of Cervical Cancer in Africa. *African Journal of Reproductive Health*. 2007; 11: 7-9.
2. Iliyasu Z, Abubakar IS, Aliyu MH, et al. Cervical Cancer Risk Perception and Predictors of Human Papilloma Virus Vaccine Acceptance among Female University Students in Northern Nigeria. *Journal of Obstetrics and Gynecology*. 2010; 30: 857-862.
3. Adewole IF, Benedet JL, Brian TC, et al. Evolving a Strategic Approach to Cervical Cancer Control in Africa. *Gynecologic Oncology*. 2005; 99: S209-S212.
4. https://www.who.int/health-topics/cancer#tab=tab_1
5. Abiodun A. Knowledge, Perception and Predictors of Uptake of Cervical Screening among Rural Nigerian Women. *Journal of Public Health and Epidemiology*. 2014; 6: 119-124.
6. Denny L. Prevention of Cervical Cancer. *Reproductive Health Matters*. 2008. 16: 18-31.
7. Akujobi CN, Ikechebelu JI, Onunkwo I, et al. Knowledge, Attitude and Practice of Screening for Cervical Cancer among Female Students of a Tertiary Institution in South-East Nigeria. *Journal of Clinical Practice*. 2008; 11: 216-219.
8. Ezem BU. Awareness and Uptake of Cervical Cancer Screening in Owerri, South-Eastern Nigeria. *Annual African Medicine*. 2007; 6: 94-98.
9. Eze J, Egwuatu V, Johnson A. A survey of Awareness and Practice of Cervical Cancer Screening among Female Hospital Attendees at Afikpo, Southeast Nigeria. *Tropical Journal of Obstetrics and Gynecology*. 2008; 25: 3-4.
10. Ahmedin JDVM, Siegel R, Xu J, et al. Cancer Statistics, 2010. *Cancer Journal of Clinicians*. 2010; 60: 277-300.
11. Rosenstock IM. Historical Origins of the Health Belief Model. *Health Education Monographs*. 1974; 2: 334.
12. Prentice-Dunn S, Rogers RW. Protection Motivation Theory

- and Preventive Health Beyond The Health Belief Model. *Health Education Research, Theory and Practice*. 1986; 1: 153-161.
13. Becker M H. The Health Belief Model and Personal Health Behavior. *HealthEducation Monographs*. 1974; 2: 409-419.
 14. Glanz K, Rimer BK, Lewis FM. *Health Behaviour and Health Education. Theory, Research and Practice*. San Fransisco: Wiley and Sons. 2002; 52.
 15. Bandura A. Self-efficacy Towards a Unifying Theory of Behaviour Change. *Psychological Review*. 1977; 84: 191-215.
 16. Yamane T, *Statistics: An introductory Analysis*. 2nd ed. New York: Happer and Row. 1967.
 17. Singh JA, Furst DE, Bharat A, et al. 2012 Update of the 2008 American College of Rheumatology recommendations for the Use of Disease Modifying Antirheumatic Drugs and Biologic Agents in the Treatment of Rheumatoid Arthritis. *Arthritis Care and Research*. 2012; 64: 625-639.
 18. Were E, Nyaberi Z, Buziba N. Integrating Cervical Cancer and Genital Tract Infection Screening into Mother, Child Health and Family Planning Clinics in Eldoret, Kenya. *African Health Sciences*. 2010; 10: 58-65.
 19. Sudenga SL, Rositch AF, Otieno WA, et al. Knowledge, Attitudes, Practices, and Perceived Risk of Cervical Cancer among Kenyan Women. *International Journal of Gynecological Cancer*. 2013; 23: 895-899.
 20. McFarland DM. Cervical Cancer and Pap Smear Screening in Botswana: Knowledge and Perceptions. *International Nursing Review*. 2003; 50: 167-175.
 21. Gu C, Chan CW, Twinn S, et al. The Influence of Knowledge and Perception of the Risk of Cervical Cancer on Screening Behavior in Main Land Chinese Women. *Psycho-Oncology*. 2010; 21: 1299-1308.
 22. Awodele O, Adenyomoye AA, Awodele DF, et al. Study on Cervical Cancer Screening amongst Nurses in Lagos University Teaching Hospital, Lagos Nigeria. *Journal of Cancer Education*. 2011; 26: 497-504.
 23. Ndlovu N. Communication with cancer patients in Zimbabwe. In: Surbone A, Zwitter M, Rajer M and Stiefel R, eds. *New Challenges in Communication with Cancer Patients*. Boston, MA: Springer. 2013; 441-450.
 24. Adekanle DA, Adeyemi AS, Afolabi AF. Knowledge, Attitude and Cervical Cancer Screening Practices among Female Secondary School Teachers in Oshogbo, South West Nigeria. *Academic Journal of Cancer Research*. 2011; 4: 24-28.
 25. Gichangi P, De Vuyst H, Estambale B, et al. HIV and Cervical Cancer in Kenya. *International Journal of Gynecology Obstetrics*. 2002; 76: 55-63.
 26. Phebeni G, Nxumalo-Magagula N, Mkhonta RN, et al. Knowledge, Attitude and Practices of Women Attending one of the Health Facilities in Hhohho Region, Swaziland, in Relation to Cervical Cancer and Screening. *Edel J Biomed Res Rev*. 2019; 1: 31-37.
 27. Udigwe GO. Knowledge, Attitude and Practice of Cervical Cancer Screening (Pap Smear) among Female Nurses in Nnewi, South Eastern Nigeria. *Niger Journal of Clinical Practice*. 2006; 9: 40-43.
 28. Phebeni G, Nxumalo-Magagula N, Mkhonta, et al. Knowledge, Attitude And Practices Of Women Attending One of the Health Facilities in Hhohho Region, Swaziland, in Relation to Cervical Cancer and Screening. *Edel J Biomed Res Rev*. 2019; 1: 31-37.
 29. Oyedunni SA, Opemipo OM. Perception and Utilization of Cervical Cancer Screening
 30. Services among Female Nurses in University College Hospital, Ibadan, Nigeria. *The Pan African Medical Journal*. 2012; 11: 69.
 31. Owoye IOG, Ibrahim IA. Knowledge and Attitude towards Cervical Cancer Screening Among Female Students and Staff in a Tertiary Institution in The Niger Delta. *International Journal of Medicine and Biomedical Research*. 2013; 2: 48-56.
 32. Parkin DM, Boyd L, Walker LC. The Fraction of Cancer Attributable to Lifestyle and Environmental Factors in the UK in 2010. *British Journal of Cancer*. 2011; 105: S77-S81.