

Original Research Article

Knowledge, Attitude and Preventive Practices of Community Dwelling Female Adults towards Cervical Cancer in Enugu State

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ABSTRACT

Background: Cervical cancer is one of the most common cancers especially in developing countries today.

Objective: This study sought to ascertain the knowledge, attitude and preventive practices of community dwelling female adults towards cervical cancer in Enugu State, South-east, Nigeria.

Methods: The study was a cross-sectional survey involving a total sample of 400 respondents living in Enugu State. Random sampling technique was used to select six Local Government Areas (LGAs) in Enugu State, while convenient sampling was employed in selecting the respondents. A structured questionnaire was used to collect data from the respondents by direct contact method. The participants were recruited from major markets and motor parks in the LGAs. The data were subjected to descriptive statistics and analyzed using Chi-square test. The alpha level of significance was 0.05 at 95 percent confident interval.

Results: Out of the 400 respondents 66% have heard of cervical cancer, while 34% had not. Among those that have heard about cervical cancer 67.8% had poor knowledge, 27.7% had fair knowledge, while 4.5% had excellent knowledge; 92% had positive attitude towards cancer, while 8% had negative attitude; 98.8% had poor preventive practice, 0.8% fair preventive practice, while 0.4% had excellent preventive practice. News media was the commonest source of information (48.5%). There was no significant relationship ($p < 0.05$) between the respondents' knowledge and attitude, but there was a significant relationship between knowledge and preventive practice ($p < 0.05$).

Conclusion: Though the attitude of the respondents towards cervical cancer was positive, their knowledge of cervical cancer and preventive practices was poor. There is need for effective awareness of cervical cancer education among females in Enugu State and South-east Nigeria in general on cervical cancer.

Keywords: knowledge, attitude, preventive practice, cervical cancer.

INTRODUCTION

Cervical cancer is the fourth most common cancer in women and the seventh in all cancer cases, with an estimated 528,000 new cases and 266,000 deaths worldwide, accounting for 7.5% of all female cancer deaths worldwide in 2012. [1] It is the second most common cancer in

Nigerian women and the most common female genital cancer constituting a major cause of mortality among Nigerian females in their most reproductive years. It was the commonest cancer reported from Ibadan, Eruwa, Zaria, Jos, Benin and Calabar. It was second to breast cancer in Enugu and Ife-Ijesha. [2] About 47.72 million Nigerian

women are at risk of cervical cancer and the crude incident rate per 100,000 populations is 17.1 while the age-standardized incidence per 100,000 populations is 29.0. The annual number of cervical cancer cases in Nigeria is 14,089 and the annual number of cervical cancer death is 8240. [3]

Cervical cancer is the malignant neoplasm of the uterine cervix. The known primary underlying cause is the human papilloma virus (HPV), the most common sexually transmitted infection worldwide, and it is estimated that 50% to 80% of sexually active women are infected at least once in their lifetime. [4] Other known risk factors are the early onset of sexual activities, multiple sex partners, prolonged use of oral contraceptives, immunosuppressants, smoking, specific dietary factors and co-infection with human immunodeficiency virus. [5]

Carcinoma of the cervix is a preventable disease, its prevention among other ways is through screening and detection of premalignant stages of the disease and treatment. The Papanicolaou (Pap) smear is one of the most essential screening tools for the early diagnosis of cervical cancer and has been found to be the most effective preventive measure. [6] The value of cervical cancer screening in reducing the risk of cervical cancer and mortality has been established, and the risk of developing cervical cancer can be reduced by 80% through regular screening. [7] The benefits of Pap smear wide availability and usage have been documented, resulting in lowering of mortality rates by up to 60 to 90% in some developed countries. [8] Industrialized countries have reduced its incidence by over 70% in the last 50 years, however, the burden seems to be on the rise in less developed countries. [9]

The purpose of the study was to ascertain the knowledge, attitude and preventive practices of community dwelling female adults towards cervical cancer in Enugu state. This study investigated the relationships between the knowledge,

attitude and preventive practices of community dwelling female adults in Enugu State. Findings obtained from the study might stir up concerns for better promotion of knowledge on the disease condition, the preventive practices, lifestyle modifications and early detection especially for community dwelling female adults. Thereby, placing emphasis on prevention rather than cure which will reduce late detection and thus reduce mortality rate and save lives.

MATERIALS AND METHODS

Procedure for data collection

This was a descriptive cross-sectional survey study conducted across six Local Government Areas (LGAs) in Enugu State. A cluster already exists from the three senatorial zones of the State. The researchers randomly selected by balloting, two LGAs each from the three zones, Aninri and Awgu from zone A, Udi and Oji river from zone B and Nsukka and Udenu from zone C making it a total of six LGAs. The target populations were community dwelling female adults living in Enugu State from 18 years and above that were not health care workers and those undergoing academic training in medical related disciplines. The sample size was 400 and was calculated from Yaro Yamane formula.

This study used self-administered questionnaire modified from questionnaire developed and used by Oche et al to study Cancer of the cervix and cervical screening: Current knowledge, attitude and practices of female health workers in Sokoto, Nigeria. [10] The questionnaire comprised of twenty-six (26) items. It was divided into four (4) sections. Section one contains socio-demographic information of the respondents while section two contains information on the knowledge of women on cervical cancer in relation to the risk factors, symptoms and preventive practices, section three contains information on the respondents' attitude towards cervical cancer while section four contains information on the respondents' preventive practices. The questionnaire was

translated to Igbo language for respondents who could not read and write in English language. They were conveniently distributed through the market heads and village chiefs by direct contact method and recovered immediately. Ethical approval was obtained from the Research and Ethics Committee of University of Nigeria Teaching Hospital, Enugu. Informed consent was obtained from each respondent.

Statistical Analysis

The data were subjected to descriptive statistics of mean and standard deviation while Chi-square test was used to analyze obtained data. The alpha level of significance was 0.05. Statistical Package for Social Sciences (SPSS) version 22 windows was used for the analysis

RESULTS

Four hundred (400) respondents were involved in this study. The respondents' demographic characteristics were summarized in table 1. Their ages ranged from 18 years and above with mean and standard deviation of 34.38 ± 13.079 and modal age group of 18-24 years, the maximum age was 75 years. 194 of them were single (48.5%) while 167 (41.8%) were married. Greater number of the participants were still menstruating 303 (75.8%). 208 (52.0%) of the participants had no children. Educational status was predominated by those with tertiary education 230 (57.5%) while employment status was predominated by those who were traders 122 (30.5%). Table 2 shows the respondents' knowledge of cervical cancer. 246 (66%) respondents have heard of cervical cancer. Their general knowledge of cervical cancer was poor 268 (67.0%); the most known on knowledge of risk factors were: having multiple sexual partner 100 (37.9%), early sexual intercourse 91 (28.8%) and acquiring human papilloma virus 88 (33.3%) while the least known was poverty 20 (7.6%). In relation to cervical cancer symptoms; the most known was bleeding after vaginal intercourse 93

(35.2%) while the least known was menstrual period longer or heavier than usual 54 (20.5%). The most known preventive practices based on lifestyle was avoidance of early sexual intercourse 116 (43.9%), the least known was avoidance of excess weight gain 37 (14.0%). 142 (53.8%) of the respondents were knowledgeable about the screening practices to prevent cervical cancer. The highest was human papilloma virus test 68 (47%), followed by pap smear 58 (40.8%) and Visual inspection with Acetic Acid 36 (25.4%). Out of the respondents that were knowledgeable about the screening practice to prevent cervical cancer, 10 (7.0%) knew the frequency at which it is performed. Generally, the knowledge of female adults on cervical cancer was poor 179 (67.8%).

Table 3 showed Chi- square test on knowledge of female adults in Enugu State on cervical cancer with respect to age which revealed no significant relationship between them, $p = 0.356$.

Table 1: Demographic characteristics of the respondents (400)

Variables	Frequency	Percentage
Age range		
18-24	114	28.5
25-34	123	30.7
35-44	67	16.7
45-54	53	13.3
55-64	38	9.5
65 and above	5	1.3
Marital status		
Single	194	48.5
Married	167	41.7
Divorce	5	1.3
Widowed	32	8.0
Separated	2	.5
No of children		
None	208	52.0
1-2children	73	18.3
3-4 children	67	16.7
5 and above	52	13.0
Level of education		
No formal education	7	1.8
Primary school	35	8.7
Secondary school	128	32.0
Tertiary education	230	57.5
Menopausal status		
Still menstruating	303	75.7
No longer menstruating	97	24.3
Occupation		
Student	100	25.0
Trader	122	30.5
Civil servant	46	11.5
Self employed	90	22.5
Public servant	30	7.5
Others	12	3.0

Table 2: Knowledge of female adults in Enugu State on cervical cancer.

Variables	Yes n (%)	No n (%)
Heard about cervical cancer	264 (66)	136 (34)
Knowledge of risk factors	Correct	Incorrect
Early sexual intercourse	91 (34.5)	173 (65.5)
Acquiring human papilloma virus (HPV)	88 (33.3)	176 (66.7)
Cigarette smoking	54 (20.5)	210 (79.5)
Having multiple sexual partners	100(37.9)	164 (62.1)
Acquiring Human immunodeficiency virus (HIV)	50 (18.9)	214 (81.1)
Chlamydia infection	67 (25.4)	197 (74.6)
Obesity	23 (8.7)	241 (91.3)
Oral contraceptives	69 (26.1)	195 (73.9)
Use of intrauterine device (IUD)	65 (24.6)	199 (75.4)
Poverty	20 (7.6)	244 (92.4)
Family history of cervical cancer	83 (31.4)	181 (68.6)
Knowledge of symptoms		
Bleeding after vaginal intercourse	93 (35.2)	171(64.8)
Bleeding after menopause	71 (26.9)	193 (73.1)
Bleeding and spotting between periods	68 (25.8)	196 (74.2)
Menstrual periods longer or heavier than usual	54 (20.5)	210 (79.5)
Unusual discharge from the vagina	76 (28.8)	188 (71.2)
Pain during intercourse.	70 (26.5)	194 (73.5)
Knowledge of preventive practice based on lifestyle		
Avoidance of multiple sexual partners	116 (43.9)	148 (56.1)
Avoidance of early sexual intercourse	111 (42.0)	153 (58.0)
Quitting smoking	68 (25.8)	196 (74.2)
Through HPV vaccination	67 (25.4)	197 (74.6)
Avoidance of excess weight gain	37 (14.0)	227 (86.0)
Avoidance of sexually transmitted diseases	104 (39.4)	160 (60.6)
Exercise	53 (20.1)	211 (79.9)
Knowledge on screening practices to prevent cervical cancer	142 (53.8)	122 (46.2)
Pap smear *	58 (40.9)	84 (59.1)
Human papilloma Virus test *	68 (47.2)	74 (52.8)
Visual inspection with Acetic Acid *	36 (25.4)	228 (74.6)
How often is screening procedures done *	10 (7.0)	132 (93.0)
General knowledge	Frequency	Percentage
Poor knowledge	179	67.8
Fair knowledge	73	27.7
Excellent knowledge	12	4.5

*=number of the respondents that are knowledgeable about the practice and frequency of practice. Knowledge score for each respondent is the total correct knowledge in items for the respondents; poor=0-39, fair=40=59 and excellent=60 and above

Table 3: Chi- square test on knowledge of female adults in Enugu State on cervical cancer with respect to age.

Knowledge	Age range	18-24	25-34	35-44	45-54	55-64	65 and above	Total	Chi square	df	p-value
									11.016 ^a	8	.356
Poor knowledge		51	60	35	23	8	2	179			
Fair knowledge		31	21	15	5	0	1	73			
Excellent knowledge		6	4	1	1	0	0	12			
Total		88	85	51	29	8	3	264			

Table 4 Chi- square test on knowledge of female adults in Enugu State on cervical cancer with respect to educational status.

Knowledge	Level of education	No formal education	Primary school	secondary school	Tertiary education	Total	Chi square	df	p-value
							11.463 ^a	6	.075
Poor knowledge		1	7	54	117	179			
Fair knowledge			1	10	60	73			
Excellent knowledge		0	0	3	9	12			
Total		3	8	67	186	264			

Table 4 showed the knowledge of female adults in Enugu State on cervical cancer with respect to educational status and a Chi-square test revealed no significant relationship between them, p =0.075.

Table 5: Attitude of female adults in Enugu State on cervical cancer.

Variables	Strongly agree n (%)	Agree n (%)	Indifferent n (%)	Disagree n (%)	Strongly disagree n (%)
Cervical cancer is a curse so cannot be treated in the hospital.	13 (4.9)	7 (2.7)	13(4.9)	53 (20.1)	178 (67.4)
Herbal healers can cure cervical cancer	27 (10.2)	46 (17.4)	41 (15.5)	77 (29.2)	73 (27.7)
Prayers and faith can cure cervical cancer	138 (52.3)	71 (26.8)	21 (8.0)	21 (8.0)	13 (4.9)
Death is inevitable when cervical cancer is present	16 (6.1)	30 (11.4)	49 (18.6)	118(44.6)	51 (19.3)
A person can get cervical cancer through witchcraft attack	55 (20.8)	25 (9.5)	42 (15.9)	68 (25.8)	74 (28.0)
Cervical cancer can be caused by evil spirit	52(19.6)	30 (11.4)	40 (15.2)	68 (25.7)	74 (28.0)
Cervical cancer is contagious	10(3.8)	16 (6.1)	31 (11.7)	72 (27.3)	135(51.1)
If you have cervical cancer, what will be your treatment option?					
Consult a doctor	235 (89.0)	18(6.9)	3 (1.1)	3 (1.1)	5(1.9)
See a herbalist	22 (8.3)	28 (10.6)	48 (18.2)	107(40.5)	59 (22.46)
Prayer houses	85(32.2)	46 (17.4)	43 (16.3)	54 (20.5)	36 (13.6)
Self medication	12 (4.5)	14 (5.3)	37 (14.0)	105(39.8)	96 (36.4)
General attitude	Frequency		Percentage		
positive	243		92.0		
Negative	21		8.0		

Table 6: Chi- square test on attitude of female adults in Enugu State on cervical cancer with respect to age.

Attitude	Age range	18-24	25-34	35-44	45-54	55-64	65 and above	Total	Chi square	df	p- value
									18.247 ^a	5	.003
Positive		85	81	45	25	5	2	243			
Negative		3	4	6	4	3	1	21			
Total		88	85	51	29	8	3	264			

*significant

Table 7: Chi- square test on attitude of female adults in Enugu State towards cervical cancer with respect to educational status.

Attitude	level of education	No formal education	Primary school	Secondary school	Tertiary education	Total	Chi square	df	p- value
							4.271 ^a	3	.234
Positive		3	8	58	174	243			
Negative		0	0	9	12	21			
Total		3	8	67	186	264			

Table 8: Preventive practices of female adults towards cervical cancer in Enugu State.

Variables	Correct n (%)	Incorrect n (%)
Done HPV vaccination before?	3 (1.1)	261(98.9)
Done Pap smear	13 (4.9)	251(95.1)
If yes, how often? *	3 (42.9)	0(0)
Done Visual Inspection with acetic acid (VIA)?	4 (1.5)	260 (98.5)
If yes, how often? *	3 (75)	0(0)
Done HVP test	3 (1.1)	261 (98.9)
If yes, how often? *	2 (66.7)	1 (33.3)
General practice	Frequency	Percentage
Poor practice	261	98.8
Fair practice	2	.8
Excellent practice	1	.4

*=number of the participants that have performed both the practice and its frequency

Table 9: Chi- square test on preventive practice of women towards cervical cancer with respect to age.

Knowledge	Age range	18- 24	25- 34	35- 44	45- 54	55- 64	65 and above	Total	Chi square	df	p- value
									12.272 ^a	8	.139
Poor practice		87	85	51	27	8	3	261			
Fair practice		1	0	0	1	0	0	2			
Excellent practice		0	0	0	1	0	0	1			
Total		88	85	51	29	8	3	264			

Table 10: Chi- square test on preventive practice of women towards cervical cancer with respect to educational status.

Practice	Level of education	No formal education	Primary school	Secondary school	Tertiary education	Total	Chi square	df	P- value
							1.273 ^a	6	.973
Poor practice		3	8	67	183	261			
Fair practice		0	0	0	2	2			
Excellent practice		0	0	0	1	1			
Total		3	8	67	186	264			

*=number of respondents that carry out the practice and at correct frequency

Table 11: Sources of information on the knowledge of cervical cancer by the female adults in Enugu state.

Variable	Frequency	Percentage
News media	128	48.4
Brochures , posters and other printed material	35	13.3
Teachers	21	8.0
Family , friends, neighbor and colleagues	38	14.4
Religious leader	4	1.5
Health worker	37	14.0
Others	1	.4

Table 12: Chi- square test on relationship between the knowledge and attitude of female adults towards cervical cancer.

Knowledge	Attitude	Positive	Negative	Total	Chi square	df	p- value
					3.327 ^a	2	.189
Poor knowledge		167	12	179			
Fair knowledge		64	9	73			
Excellent knowledge		12	0	12			
Total		243	21	264			

Table 13: Chi- square test relationship between the knowledge and preventive practice of female adults towards cervical cancer.

Knowledge	Practice	Poor practice	Fair practice	Excellent practice	Total	Chi square	df	p- value
						13.530 ^a	4	.009
Poor knowledge		179	0	0	179			
Fair knowledge		71	1	1	73			
Excellent knowledge		11	1	0	12			
Total		261	2	1	264			

Table 5 showed respondents' attitude towards cervical cancer. 178 (67.4%) of the respondents strongly disagreed that cervical cancer is a curse so cannot be treated in the hospital whereas only 13 (4.9%) strongly agreed. 77 (29.2%) disagreed that herbal healers can cure cervical cancer whereas 46 (17.4%) agreed. Majority of the respondents 138 (52.3%) agreed that prayers and faith can cure cervical cancer. 118 (44.7%) disagreed that death is inevitable when cervical cancer is present. 74 (28.0%) disagreed that a person can get cervical cancer through witchcraft attack whereas 55 (20.8%) agreed. 74 (28.8%) disagreed that cervical cancer can be caused by evil spirit, on the other side 52 (19.7%) strongly agreed. A good number of the respondents 135 (33.8%) strongly disagreed that cervical cancer is contagious. More than half of the respondents 235 (89.0%) strongly agreed that consulting a doctor would be their treatment option for cervical cancer. 107 (40.5%) disagreed on seeing a herbalist as treatment option for cervical cancer whereas 48 (18.2%) were indifferent. 85 (32.2%) strongly agreed on prayer houses being a treatment option for cervical cancer but 54 (20.5%) also disagreed. 105 (39.5%) strongly disagreed on self-medication as cervical cancer

treatment option. In general, the attitude of female adults in Enugu state towards cervical cancer was positive. Table 6 showed the relationship between the attitude of female adults towards cervical cancer with respect to age and Chi square test revealed a significant relationship between them. $p = 0.003$. Table 7 showed the relationship between attitude of female adults towards cervical cancer with respect to educational status and Chi square test revealed no significant relationship between them. $p = 0.234$. Table 8 showed the preventive practices of female adults towards cervical cancer. 3 (1.1%) participants have done HPV vaccination. Out of 13 (4.9%) that have done Pap smear, 3 (42.9%) performed it at correct frequency. 4 (1.5%) of the participants have done visual inspection with acetic acid (VIA) while 3 (75%) performed it at correct frequency. Out of 3 (1.1%) that have done human papillomavirus (HPV) test, 2 (66.7%) performed it at correct frequency. The practice of female adults in Enugu state towards cervical cancer was generally poor 261 (98.9%). Table 9 showed the preventive practice of female adults towards cervical cancer with respect to age and Chi- square test revealed no significant relationship between them. $p = 0.139$. Table 10 shows

the preventive practice of female adults towards cervical cancer with respect to educational status and Chi square test revealed no significant relationship between them. $p = 0.973$. Table 11 showed the sources of information on the knowledge of cervical cancer by the female adults in Enugu state. News media 128 (48.5%) was the highest source of information, followed by family, friends, neighbor and colleagues 38 (14.4%) and health workers 37 (14.0%). The least was religious leaders 4 (1.5%) apart from others 1 (.4%). Table 12 showed the relationship between the knowledge and attitude of female adults towards cervical cancer and Chi- square test revealed no significant relationship between them. $p= 0.189$. Table 13 shows the relationship between the knowledge and practice of female adults towards cervical cancer and Chi square test revealed a significant relationship between them. $p=0.009$.

DISCUSSION

Findings from the result showed that quite a good number were not knowledgeable of the existence of cervical cancer, even among the respondents that were knowledgeable on the existence of the disease, few knew about some of the risk factors, symptoms and preventive practices of cervical cancer and this is in agreement with the findings of Kumar and Tanya. [11] The general knowledge on cervical cancer was poor among all age groups irrespective of their educational status and this corresponds with the findings of Basu et al., [12] Thus, the null hypothesis which stated that there would be no significant relationship between knowledge with respect to age and educational status was accepted. The most common risk factor mentioned was multiple sexual partners which correspond with the findings of Abotchie et al., [13] but contrasts with the findings of Chande and Kassim [14] where the most common mentioned risk factors was early sexual intercourse. Of all the respondents, few mentioned HPV as an important factor in causation of cervical

carcinoma in as much that HPV is the primary and commonest risk factor of cervical cancer. This poor level of knowledge could potentially contribute to delay in seeking medical help and poor preventive practice.

Findings from the results on the attitude of community dwelling female adults towards cervical cancer showed that majority of the respondents had positive attitude towards the disease condition which is in agreement with study by Nakibuule. [15] The attitude with respect to age was significant but not significant with educational status which suggests that their attitude was not dependent on the level education.

The findings from the study showed that the preventive practices of the respondents were poor which corresponds with the findings of Udigwe [16] and Tran et al., [17] Generally, most studies showed that women in African countries do not screen for cervical premalignant lesions and this could be the reason for the advanced cases of the disease seen in hospitals. This limitation in practice could be attributed to the respondents' poor knowledge of the disease condition irrespective of their positive attitude towards it. Findings from this study also showed that practice with respect to age and educational status was not significant, this agrees with the findings of Leung et al., [18]

The findings from the study showed that news media was the common source of information and this corresponds with the findings of Ziba et al., [19] but contrasts with the findings of Sudenga et al., [20] where most of the respondents indicated that healthcare workers were the major source of information.

Findings from this study showed no significant relationship between knowledge and attitude of female adults towards cervical cancer. This showed that the respondents' attitude was not dependent on their knowledge of the disease condition and this is in agreement with the findings of Agam et al., [21] Thus, the hypothesis which

states that there would be no significant relationship between knowledge and attitude was accepted.

Findings from the study showed a significant relationship between knowledge and practice of female adults towards cervical cancer which is in contrast with the findings of Saad et al., [22] Thus, the hypothesis which states that there would be no significant relationship between knowledge and attitude would be rejected. The poor practice could be attributed to poor knowledge of the respondents towards the disease condition. Other reasons could be to ignorance, misconceptions and religious beliefs.

Limitations

The study was solely based on the information supplied by the respondents. Some of the female adults were reluctant in providing information in the course of the study because of their belief that the cancer is a bad ailment and supposed not to be mentioned or discussed. The study involved only six out of seventeen Local Government Areas (LGA) in Enugu State.

CONCLUSION

The results of this study revealed a poor knowledge of cervical cancer and poor preventive practices irrespective the positive attitude towards the disease condition. A significant proportion of participants in this study believed in the role of prayer in the cure of cancer and consulting a doctor as a treatment option for the diseases. News media was the common source of information even more than health care providers who supposed to play a vital role in dissemination of the information. Importantly, there is need for creation of awareness on cervical cancer and cervical cancer preventive practices. Efforts to reduce cervical cancer mortality should focus on reaching out to all female adults and provide health education, barrier-specific counseling as well as community-based interventions. Efforts to promote preventive practices among women should

focus on informing women of their susceptibility to these disease conditions and encouraging right attitude towards the disease conditions. Women should be encouraged to take responsibility for their own health and be active participants in screening programmes. Since mass media was the major source of information from the findings of this study, its function should be optimized. Healthcare providers should also improve in their involvement in educating and dissemination of information that focus on educating the women about the disease conditions and the need for the preventive practices.

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