

Cervical Cancer Screening Knowledge among Women of Childbearing Age in Nsukka Local Government Area, Enugu State

¹Ukamaka, Perpetua Ugwu, ²Dorothy Ifeyinwa Ugwu, ³Tony Oche Ejeoyi, ⁴Benedict Ezike Amadi, ⁵Uchenna Cosmas Ugwu

^{1,2,3,4,5}Department of Human Kinetics and Health Education, Faculty of Education, University of Nigeria, Nsukka, Enugu State, Nigeria.

***Corresponding author:**

Uchenna Cosmas Ugwu, Ph.D. E-mail: uchennacos.ugwu@unn.edu.ng

Abstract

Cervical cancer screening is one of the reliable measures to establish cervical cancer (CC) cases in women. However, there seems to be a lack of knowledge of CC screening among many women, especially in rural communities. This study determined cervical cancer screening knowledge among women of childbearing age in Nsukka Local Government Area (LGA), Enugu State. The study adopted a descriptive survey research design. The population for the study consisted of 11,357 women of childbearing age who registered with accredited public healthcare facilities in Nsukka LGA, Enugu State. A total of 400 respondents constituted the sample size for the study. An adapted questionnaire titled “Cervical Cancer Screening Knowledge Questionnaire (CCSKQ) with a reliability index of .89 was used for data collection. Frequencies and percentages were employed to answer the research questions while chi-square test was utilized to test the null hypothesis. The results were considered statistically significant at $p \leq 0.05$. The findings indicated that greater proportion of women of childbearing age possessed adequate cervical cancer screening knowledge (62.4%). Also, majority (63.1%) of nulliparous, multiparous (61.5%); primiparous (62.3) and grand multiparous (58.1%) women possessed adequate cervical cancer screening knowledge. No significant difference was observed in the cervical cancer screening knowledge among women of childbearing age based on parity status ($p > 0.05$). The researchers recommended that the ministry of health in collaboration with healthcare professionals should routinely organize seminars and workshops on cervical cancer screening and its health benefits.

Keywords: Descriptive survey research design, Women of childbearing age, Cervical cancer screening, Knowledge, Parity status

Introduction

Worldwide, cervical cancer is a serious health problem. Cervical cancer is associated with high morbidity and mortality rates (Morounke et al., 2017; Ferlay et al., 2018). Morounke et al. (2017) Ferlay et al. (2018) reported that over 5, 560,000 new cases and about 1, 275,000 deaths are recorded each year, with more than 80 per cent occurring in developing countries including Nigeria. The disease is rated the seventh form of cancer in the world, with very high prevalence of 89 per cent (Holland & Stewart, 2018). According to Parkin et al. (2018), it is estimated that about 70,722 new cases of invasive cervical cancer occur annually in sub-Saharan Africa. Specifically, further statistics indicate that the incidence rate of cervical cancer in Nigeria is estimated at 250/100,000, with 10,000 mortality rates (Ferlay et al., 2013; Kikuchi et al., 2018). In 2017, research evidences (Morounke et al., 2017; WHO, 2017) show that about 36.59 million women aged 15 years and above in Nigeria, were at high

risk of developing cervical cancer, with Enugu State and its sub-settings, recording more than thirty per cent.

Cervical cancer is the commonest form of genital malignancy with its active point on the neck of the uterus of the female reproductive organ. It is a serious disease characterized by malignant tumor in the cervix of the female reproductive organ that kills normal body cells and often causes death (Hsu et al., 2011). According to Narayana et al. (2017), cervical cancer is the uncontrollable proliferation of the cells of the cervix, marked by an enlarged tumor-like growth which can exist in stages such as normal stage, early stage, late stage 1B, and stage 11B. Each of the stages presents warning signs and symptoms such as vaginal bleeding, abnormal vaginal discharge, pain during intercourse, pelvic pain, lower back pain, pain and swelling in legs, unexplained weight loss and decrease in appetite (Women's Health, 2020).

There are some notable risk factors for cervical cancer. These may include human papillomavirus (HPV) infection, immune system deficiency, herpes, smoking, age, socio-economic factors, oral contraceptives, obesity and exposure to diethylstilbestrol (DES) (Cancer.Net, 2020). Literature evidences indicate that CC screening and vaccination are reliable preventive measures Morounke et al., 2017; WHO, 2017; Kikuchi et al., 2018). The main thrust of this study is the cervical cancer screening, as it is the measure commonly accessible for all potential victims of the disease in every country of the world (WHO, 2017). The exercise is usually organized by the government in collaboration with the healthcare professionals manning various health facilities in the country. Thus, it becomes imperative to ascertain cervical cancer screening knowledge of women of childbearing age and also the differences based on parity status. This study determined CCS knowledge among women of childbearing age in Nsukka Local Government Area (LGA), Enugu State. It is one of the expectations of the researchers that the outcome of this study would form a framework for the development and implementation of cervical cancer prevention programme for all women of childbearing ages in all the states of the federation.

Research Questions

The following questions guided the study:

1. What is the proportion of women of childbearing age who possess cervical cancer screening knowledge in Nsukka LGA, Enugu State?
2. What is the proportion of women of childbearing age who possess cervical cancer screening knowledge in Nsukka LGA, Enugu State based on parity?

Hypothesis

1. There is no significant difference in the cervical cancer screening knowledge among women of childbearing age in Nsukka LGA, Enugu State based on parity status ($p \leq 0.05$).

Materials and Methods

The study adopted the descriptive survey research design. The study was conducted in Nsukka LGA, Enugu State. A total of 81 functional health facilities located in various communities, towns and twenty political wards were used for the study (Federal Ministry of Health, 2019). The population for the study comprised 11,357 women of childbearing age who registered with accredited public healthcare facilities in Nsukka LGA, Enugu State (Nsukka LGA Population Statistics, 2021). The study sample consisted of 400 women of childbearing age. The sample for the study was selected using two stage sampling techniques based on the suggestion of Cohen et al. (2011). An adapted questionnaire titled "Cervical Cancer Screening Knowledge Questionnaire (CCSKQ) with reliability index of .89 was used for data collection.

The items of CCSKQ were adapted from standardized questionnaires used by other researchers (Jassim et al., 2018; Humariya et al., 2019) in their respective studies. With the assistance of three research assistants who were briefed on the modalities of questionnaire administration, the respondents were given copies of the CCSKQ. The copies of the questionnaire were returned (93.5% return rate). Frequencies and percentages were used to answer the research questions while chi-square test was adopted to test the null hypothesis. The results were considered statistically significant at $p \leq 0.05$.

Results

Table 1
Proportion of Women of Childbearing Age who possess Cervical Cancer Screening Knowledge in Nsukka LGA, Enugu State (n=374)

S/N	Items	Correct		Incorrect	
		f	%	f	%
1.	Cervical cancer screening (CCS) is a strategy designed to prevent CC.	365	97.6	9	2.4
2.	CCS is a reliable public health initiative to reduce the incidence rate of cervical cancer (CC).	351	93.9	23	6.1
3.	CCS is a health activity that enhances early detection and treatment of CC.	336	89.8	38	10.2
4.	CCS is an effective intervention, made available and accessible in healthcare facilities for all healthy women to check cervical cancer status.	90	24.1	284	75.9
5.	CCS is done on personal-basis (high-risk or selective screening) or as a group (mass screening) or multiphasic screening (application of two or more screening tests to a large number of people at a time).	74	19.8	300	80.2
6.	The search for CC disease in a healthy female individual is referred to CCS.	347	92.8	27	7.2
7.	CCS is the administration of questionnaire, clinical examinations and a variety of measurements, investigations, applied tests, examinations on women.	143	38.2	231	61.8
8.	CCS is carried out in healthcare facilities by healthcare providers.	314	84.0	60	16.0
9.	Every woman within the reproductive age should have CCS at least once in every three years.	307	82.1	67	17.9
10.	CCS is the most helpful way to detect pre-cancer and cancer of the cervix.	273	73.0	101	27.0
11.	CCS is the detection of abnormal cell growths in the cervix.	272	72.7	102	27.3
12.	CCS is a non-invasive and inexpensive method for cervical cancer cases.	188	50.3	186	49.7
13.	CCS is recommended for every woman from the onset of sexual activity.	201	53.7	173	46.3
14.	CCS can be performed at menstrual and non- menstrual periods.	171	45.7	203	54.3
15.	CCS should be discontinued after menopause.	56	15.0	318	85.0
Average Per cent			62.2		37.6

Results in Table 1 showed that a high proportion (62.2%) of women of childbearing age possessed cervical cancer screening knowledge in Nsukka LGA, Enugu State.

Table 2

Proportion of Women of Childbearing Age Who possess Knowledge of Cervical Cancer Screening based on Parity (n=374).

S/N	Items	Nullip (n=105)		Multip(n=186)		Primip (n=38)		GrandMult(n=45)	
		f	%	f	%	f	%	f	%
1.	Cervical cancer screening is a strategy designed to prevent cervical cancer.	103	98.1	183	98.4	35	92.1	44	97.8
2.	CCS is a reliable public health initiative to reduce the incidence rate of CC .	96	91.4	178	95.7	35	92.1	42	93.3
3.	CCS is a health activity that enhances early detection and treatment of CC.	95	90.5	163	87.6	36	94.7	42	93.3
4.	CCS is an effective intervention, made available and accessible in health care facilities for all healthy women to check cervical cancer status.	29	27.6	41	22.0	10	26.3	10	22.2
5.	CCS is done on personal-basis (high-risk or selective screening) or as a group (mass screening) or multiphasic screening (application of two or more screening tests to a large number of people at a time).	24	22.9	35	18.8	10	26.3	5	11.1
6.	The search for CC disease in a healthy female individual is referred to CCS.	94	89.5	177	95.2	35	92.1	41	91.1
7.	CCS is the administration of questionnaire, clinical examinations and a variety of measurements, investigations, applied tests, examinations on women.	42	40.0	66	35.5	15	39.5	20	44.4
8.	CCS is carried out in healthcare facilities by healthcare providers.	89	84.8	156	83.9	31	81.6	38	85.6
9.	Every woman within the reproductive age should have CCS at least once in every three years.	81	77.1	159	85.5	28	73.7	39	86.7
10.	CCS is the most helpful way to detect pre-cancer and cancer of the cervix.	82	78.1	130	69.9	27	71.1	34	75.6
11.	CCS is the detection of abnormal cell growths in the cervix.	79	75.2	136	73.1	27	71.1	30	66.7
12.	CCS is a non-invasive and inexpensive method for CC cases.	56	53.3	89	47.8	19	50.0	24	53.3
13.	CCS is recommended for all woman from the onset of sexual activity.	55	52.4	99	53.2	22	57.9	25	55.6
14.	CCS can be performed at menstrual and non- menstrual periods.	45	42.9	80	43.0	23	60.5	23	51.1
15.	CCS should be discontinued after menopause.	24	22.9	23	12.4	3	7.9	6	13.3
Average Per cent			63.1		61.5		62.3		58.1

Results in Table 2 showed that greater proportion of nulliparous (63.1%), multiparous (61.5%); primiparous (62.3) and grandmultiparous (58.1%) women of childbearing age possess cervical cancer screening knowledge in Nsukka LGA, Enugu State.

Table 3

Chi-square Analysis Testing Significant Difference in the Cervical Cancer Screening Knowledge among Women of Childbearing Age in Nsukka LGA, Enugu State based on Parity Status (n=374).

Knowledge of CCS	Variable (Parity Status)	Correct O(E)	Incorrect O(E)	χ^2	df	p-value	Dec
Parity Status	Nullip (None)	85(83.4)	20(21.6)	0.247	3	0.970	NS
	Multip (0-1)	147(147.7)	39(38.3)				
	PrimiP (2-4)	30(30.2)	8(7.8)				
	GrandMulti (5+)	35(35.7)	10(9.3)				

Note: NS = Not Significant; S = Significant; Dec. = decision; df = degree of freedom

Results in Table 3 showed the calculated chi-square value and the corresponding p-value of cervical cancer screening knowledge among women of childbearing age in Nsukka LGA, Enugu State based on parity status ($X^2 = 0.247$; $p = 0.970$) which was greater than .05 level of significance at 3 and 374 degrees of freedom. The null hypothesis of no significant difference in the cervical cancer screening knowledge among women of childbearing age in Nsukka LGA, Enugu State based on parity status was therefore, not rejected. This implied that the cervical cancer screening knowledge of the respondents did not differ significantly based on parity status.

Discussion

This descriptive study determined the status of cervical cancer screening knowledge among women of childbearing age in Nsukka LGA, Enugu State. The finding in Table 1 showed that greater proportion (62.4%) of women of childbearing age possessed cervical cancer screening knowledge in Nsukka LGA, Enugu State. The outcome was expected because it agrees with findings of previous studies. This finding is equally in accordance with findings of other researchers. For instance, Gebraeli et al. (2017) found that the knowledge of CCS among childbearing mothers attending tertiary healthcare facilities in Ethiopia was moderate. Similarly, Kazumnori et al (2017) reported moderate (53.0%) knowledge of CCS among pregnant women accessing tertiary healthcare facilities in Mozambique. In addition, high proportion (72.6%) of knowledge of CCS was recorded among women of childbearing age accessing tertiary healthcare facilities in rural areas of Rangareddy District of Telangana (Menadise et al., 2017). Also, Nanbur et al. (2017) reported moderate (51.0%) proportion knowledge of CCS among pregnant women accessing tertiary healthcare facilities in Doha. However, in contrast to the present finding, Blakemole, Hulshot and Sluiter (2017) indicated that pregnant women accessing tertiary healthcare facilities in Accra region of Ghana possessed poor knowledge regarding CCS in a scale of five. Also, Gong et al. (2017) revealed poor knowledge of CCS among selected Japanese pregnant women attending public healthcare facilities. The implication of the finding is that majority of the women of childbearing age know about CCS. The reasons for this finding could be linked to the fact that the women attended antenatal care as advised and have equally received quality information on issues relating to CCS.

Interestingly, all the nulliparous (63.1%), multiparous (61.5%); primiparous (62.3) and grand multiparous (58.1%) women of childbearing age possessed adequate cervical cancer screening knowledge as contained in Table 2. The finding is not surprising since parity status of the women did not limit the level of knowledge regarding CCS in the study area. In contrast with a previous finding, Kazumnori et al. (2017) reported that nulliparous and grandmultiparous women possessed very high level of knowledge of CCS more than their counterparts with multiparous and primiparous status. Similarly, Menadise et al. (2017) revealed that multiparous women possessed adequate knowledge of CCS more than their

counterparts with other status. The results of the null hypothesis showed that no significant difference was observed in the cervical cancer screening knowledge among women of childbearing age in Nsukka LGA, Enugu State based on parity status. This finding could be attributed to the fact that cervical cancer is deadly and incurable in nature and thus, absolute knowledge and measures for effective prevention and control regardless of parity status becomes paramount. The implication of the finding is that with adequate cervical cancer screening knowledge by the respondents, detecting and possibly combating cervical cancer particularly in Nsukka LGA would be lesser difficult. These findings could serve as positive steps toward establishing or developing cervical cancer screening programme for women of childbearing age in Nigeria and other parts of the world.

The current research records some notable limitations. In this study, only the women of childbearing age accessing healthcare facilities in Nsukka LGA, Enugu, were sampled and studied. Hence, the findings of the study might not be a true representation of knowledge relating to cervical cancer screening among all the women of childbearing age since other women in various locations or areas were not captured. This study primarily relied on questionnaire tool for data collection. Therefore, there is a need to employ other data collection tools such as interview schedule and focus group discussion. These measures would allow the respondents to express their views and experiences regarding knowledge of cervical cancer screening.

Conclusion

Based on the outcomes of this study, conclusions were deduced that women of childbearing age possessed adequate cervical cancer screening knowledge in Nsukka LGA, Enugu State.

Recommendation

The ministry of health in collaboration with healthcare professionals should routinely organize seminars and workshops on cervical cancer screening and its health benefits.

References

- Blakemole, J., Hulshot, A., & Sluiter, Q. (2017). Knowledge and attitude towards cervical cancer screening among pregnant women accessing tertiary healthcare facilities in Accra region of Ghana. *International Journal of Tropical Medicines and Research*, 82(2), 334-345.
- Cancer.Net (2020). *Cervical Cancer: Risk Factors*. Information from ASCO.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods in Education* (7th ed.). London: Routledge.
- Erickson, L., Alvarez, P., & Huh, A. B. (2013). Impact of cancer screening on women's health. *International Journal of Gynaecology and Obstetrics*, 58,137–147.
- Federal Ministry of Health (2018). Nigeria Health Registry. Federal Capital Territory, Abuja. <https://hfr.health.gov.ng>.
- Federal Ministry of Health (2019). Nigeria Health Facility Registry. Federal Capital Territory, Abuja. <https://hfr.health.gov.ng>.
- Ferlay, G., Shin, R., Bray, M., Forman, N., Mathers, V., & Parkin, V. (2018). Comparison of papanicolaou (Pap) test rates across Ontario and factors associated with cervical screening. *Canadian Journal of Public Health*, 96,140–144.

- Gebraeli, J., Amin, B., Leila, N., & Abadi, R. (2017). Knowledge and attitude towards cervical cancer screening among childbearing mothers attending tertiary health facilities in Ethiopia. *Journal of Cancer and Health, 78*(3), 155-166.
- Gholamreza, O., Arash, N., Toupin, F., Ali, W., Lessard, D., & Lebouche, S. (2018). Knowledge and attitude towards cervical cancer screening among nursing mothers attending public hospitals in Burkina Faso. *International Journal of Advances in Health and Research, 78*(22), 556-568.
- Gong, L., Han, O., Yin, A., Yang, R., Zhuang, E., Chen, S., & Lu, N. (2017). Knowledge and attitude towards cervical cancer screening among selected Japanese pregnant women attending public healthcare facilities. *Japanese Journal of Cancer, Health and Diseases, 51*(33), 242-254.
- Holland, F., & Stewart, B. (2018). American Indian women's talking circle: A cervical cancer screening and prevention project. *Cancer, 78*(7), 1592-1597.
- Hsu, Y. Y., Cheng, Y. M., Hsu, K. F., Fetzer, S. J. & Chou, C. Y. (2011). Knowledge and beliefs about cervical cancer and human papillomavirus among Taiwanese undergraduate women. *Oncology of Nursing Forum, 38*, 297-304
- Humariya, H., Sajid, D., Isamme, A., Muhammad, R., Rabeena, T., Gazi, P., & Amani, A. (2019). Knowledge, attitudes, and practices towards cervical cancer and screening amongst female healthcare professionals: a cross-sectional study. *Journal of Oncology, 20*(9), 211-219.
- Jassim, G., Abaaelddin, O., & Huda, A. (2018). Knowledge, attitudes, and practices regarding cervical cancer and screening among women visiting primary health care Centres in Bahrain. *BMC Public Health, 3*(12), 117-126.
- Kazumnori, J., Makiko, K., Akizumi, R., Akiko, L., Yuko, E., & Teruichi, W. (2017). Knowledge and attitude towards cervical cancer screening among pregnant women accessing tertiary healthcare facilities in Mozambique. *International Journal of Health and Diseases, 7*(2), 144-153.
- Kikuchi, I., Makaya, G., Ikeda, E., Narita, A., Tekeda, J., & Nish, S. (2018). Knowledge and attitude towards cervical cancer screening among women of childbearing age accessing professional care services in General Hospital Kwoi, Kaduna State of Nigeria". *Nigerian Journal of Reproductive Diseases and Health, 2*(3), 144-152.
- Menadise, U., Fakipik, T., Filipe, Y., & Khatibat, R. (2017). Knowledge and attitude towards cervical cancer screening among women of childbearing age accessing tertiary healthcare facilities in rural area of Rangareddy district of Telangana. *Advances in Cancer Research and Health, 65*(33), 412-424.
- Moronunke, A., Ayorinde, N., Benedict, C., Adedayo, U., & Adewale, S. (2017). Risks for incident human papillomavirus and low-grade squamous intraepithelial lesion development in young females. *JAMA, 285*, 2995-3002.

- Nanbur, J., Ringkat, H., Bulndi, W., Abimiku, M., Planks, S., Lelic, G., & Maniag, B. (2017). Knowledge and attitude towards cervical cancer screening among pregnant women accessing tertiary healthcare facilities in Doha. *Journal of Scientific Studies, Research and Diseases*, 8(7), 133-142.
- Narayana, G., Suchitra, M.J., Sunanda, G., Ramaiah, J. D., Kumar, B. P., & Veerabhadrapa, K.V. (2017). Knowledge, attitude and practice toward cervical cancer among women attending Obstetrics and Gynecology Department: a cross-sectional, hospital-based survey in South India. *Indian Journal of Cancer*, 54, 481-487
- Nsukka Local Government Area Population Statistics. (2019). *Records of Registered Women of Childbearing Age in Healthcare Facilities in Nsukka*. Nsukka LGA.
- Parkin, J., Sitas, U., Chirenje, T., Stein, R., Abratt, L., & Wabinga, K. (2018). *Estimation of the New Invasive Cervical Cancer in Sub-Sahara Africa: theoretical perspectives*. New Delhi: Lustiby and Jessy Books.
- Women's Health. (2020). *The picture of the cervix*. 2020 WebMD
- World Health Organization. (2017). Reports on prevalence and estimates of cancer cases in developing world. World Health Organization. Geneva.
- Yuri, M., Yumiko, K., Mirabi, U., Pudtyoj, H., & Wopki, L. (2018). Knowledge and attitude towards cervical cancer screening among women of childbearing age in rural India. *Indian Journal of Tropical Diseases and Health*, 34(4), 277-285.