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Original Article

Comparative Study on the Knowledge of Breast and Cervical Cancer among Females in Rural and Urban Areas of Niger Delta

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ABSTRACT

In developing nations one of the major causes of continuous increased rate of disease is due to lack of adequate knowledge concerning such ailment. Cervical cancer is the second most common cancer among women worldwide, while breast cancer is the most common malignant neoplasm affecting and causing mortality among women in the world. The aim of this research is to assess and compare the knowledge of breast and cervical cancer among women. A cross-sectional survey was conducted in Nigeria. Study was based on data from three hundred women from different backgrounds with age ranging from 15 to 56 years. Data collection was with the aid of questionnaire. 25% and 80%, said "yes" that cervical and breast cancers are curable, while 75% and 20% said "no" respectively. 61% and 68% said "yes" that they know the risk factor in cervical and breast cancer, while 39% and 32% said "no" they don't know the risk factors respectively. Approximately 50% each said "yes" and "no" respectively to if they have heard of Pap smear. 35% of the respondents know of the screening Interval, 65% said "no". 90% affirmed that regular checking of breast can help in early dictation, while 10% said "no" it will not. Forty percent said "yes" that breast cancer can be inherited, while 60% said "no". Knowing about breast and cervical cancer in details will help to reduce the rate of these cancers in undeveloped and developing countries, thereby reducing the mortality rate caused by these diseases.
Key words: Pathology, Neoplasm, Cytology, Breast and Cervical Cancer

INTRODUCTION

In developing nations, one of the major causes of continuous increase rate of disease is due to lack of adequate knowledge concerning such ailment. In most nations of Africa today some women are yet to hear those words breast and cervical cancer.

Cervical cancer has been recorded to be the second most common cancer among women worldwide but the commonest in developing countries, accounting for approximately 12% of all cancers in women worldwide [1], while breast cancer has been reported to be the most common malignant neoplasm affecting [2] and causing mortality among women in the world [3] with the developing nations taking the lead.

There is evidence that incidence of breast cancer is increasing and is occurring more rapidly in countries with a low incidence rate of breast cancer [4].

Documentation has been a major problem in reporting of trends of cervical incidences from developing countries and where there are records they are limited by poor data quality and inaccurate population estimation [5]. In developing countries, mortality rates from cervical cancer have been reported to be 11.2 per 100,000 women on the average, almost three times the rate of developed countries [6, 7]. About 40 percent of cervical cancer deaths in developing countries occur in South Central Asia. Deaths associated with cervical cancer are the most telling indicator of the disease's impact on women [6]. While a woman in the United States has a 70% chance of surviving cervical cancer, that chance is reduced to 58% in Thailand, 42% in India, and 21% in sub-Saharan Africa [8]. Reports show that there are about 440,000 new cases annually, and 80% of these cases occurring in developing and undeveloped countries [9].

Every year over 1.15 million women worldwide are diagnosed with breast cancer and 502,000 die from the disease [10]. In African breast cancer patients tends to present at a young age, with large tumors and multiple

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nodal involvements, and have poorer clinical and pathological prognostic factors compared with Caucasian patients [11].

In developed countries like the United States of America, breast and cervical cancer account for one-third of new cancer cases and 18% of cancer deaths among women [12]. The impact of these cancers are greater among older, low-income, and minority women [13]. With rising reports of breast and cervical cancer in developing and undeveloped countries in the world today, it paramount to assess and compare the knowledge of breast and cervical cancer, hence the aim of this research.

MATERIALS AND METHODS

A cross-sectional survey was conducted in Amassoma which is situated in Wilberforce Island a rural terrain in Bayelsa State and in Port Harcourt (Rivers State) one of the most popular cities in Nigeria to compare the knowledge of breast and cervical cancer among females. Bayelsa and Rivers State have the largest crude oil and natural gas deposits in Nigeria.

The present study was based on data from three hundred (300) women from different backgrounds (200 from urban and 100 from rural) with age ranging from 15 to 56 years. Data collection was with the aid of questionnaires designed to obtain relevant knowledge of breast and cervical cancer. Questions for participants were drawn on risk factors, symptoms and screening breast and cervical cancer. The questions were designed to obtain "yes" or "no" answers.

Informed consent was granted by individual subjects. Data analysis was by the use Ordinary ANOA, Tukey-Kramer and Bonferroni Multiple Comparisons Test, using Graphpad Instat software. P value < 0.05 was considered significant.

RESULTS

It was interesting to note that the overall result of the research shows that 61% of the urban dwellers had poor knowledge of cervical cancer saying “No” to questions that where meant to be “Yes”, While only 39% of the urban respondents demonstrated good knowledge of cervical cancer saying “Yes” to the questions. There was significant ($P<0.05$) difference when the two group of respondents where compared statistically. The rural dwellers recorded higher number (71%) of respondents with poor knowledge of cervical cancer, while 29% had good knowledge of cervical cancer, this was also significant ($P<0.001$) when compared statistically.

The urban dwellers had good knowledge of breast cancer as 57% of the respondents said “Yes” to the questions. Others (43%) had poor knowledge of breast cancer as they said “No” to the questions. There was no significant difference when compared. The rural respondents (40%) demonstrated good knowledge in breast cancer, while 60% of then had poor knowledge of breast cancer there was no significant difference.

Table 1. Demographic characteristics of respondents

Demographic characteristics	Category	Frequency of Urban %	Frequency of Rural %
Age group	15-25	120 (60)	51(51)
	26-35	53 (26.5)	19 (19)
	36-45	12 (6)	1(1)
	46 above	15 (7.5)	18 (18)
Marital status	Married	41	20
	Single	51	64
	Separated	2	5
	Divorced	2	3
	Widowed	4	8
Religion	Christianity	186	81
	Traditional	8	5
	Muslim	2	7
	Others	4	7
Residence	Urban	200	-
	Rural	-	100

Table 2. Questions and Responds for Cervical Cancer Knowledge

Question	Urban		Rural	
	Yes (%)	**No (%)**	**Yes (%)**	**No (%)**
Is cervical cancer curable	59 (29.5)	141 (70.5)	18 (18)	82 (82)
Do you know the risk factors of cervical cancer	74 (37)	126 (63)	38 (38)	62 (62)
Have you heard of Pap smear	104 (52)	96 (48)	41 (41)	59 (59)
Do you know of the screening Interval	76 (38)	124 (62)	18 (18)	82 (82)
Total (%)	39	61	29	71

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Table 3. Statistical Comparison for Cervical Cancer Knowledge among Urban and Rural Dwellers

Comparison	P value	Significance
Urban Yes vs. Rural Yes	P>0.05	Not Significant
Urban No vs. Rural No	P>0.05	Not Significant
Urban Yes vs. Urban No	P<0.05*	Significant
Rural Yes vs. Rural No	P<0.001***	Significant

Table 4. Questions and Responds for Breast Cancer Knowledge

Question	Urban		Rural	
	Yes (%)	**No (%)**	**Yes (%)**	**No (%)**
Is breast cancer curable when dictated early	172 (**86**)	28 (**24**)	68 (**68**)	32 (**32**)
Do you know the risk factors of breast cancer	12 (**6**)	188 (**94**)	21 (**21**)	79 (**79**)
Regular checking of breast can help in early dictation	182 (**91**)	18 (**9**)	77 (**77**)	23 (**23**)
Is breast cancer hereditary	89 (**44.5**)	111 (**55.5**)	40 (**40**)	60 (**60**)
Total %	57	43	40	60

Ordinary ANOA, Tukey-Kramer Multiple Comparisons Test, using Graphpad Instat software did not provide comparison table for breast cancer knowledge for Urban and Rural dwellers because P values where all greater than 0.05 (P>0.05), which is considered not significant.

The knowledge of both breast and cervical cancer were compared statistically using one-way ANOVA, Bonferroni Multiple Comparisons Test, there was no significant difference as P values were greater than 0.05 (P> 0.05).

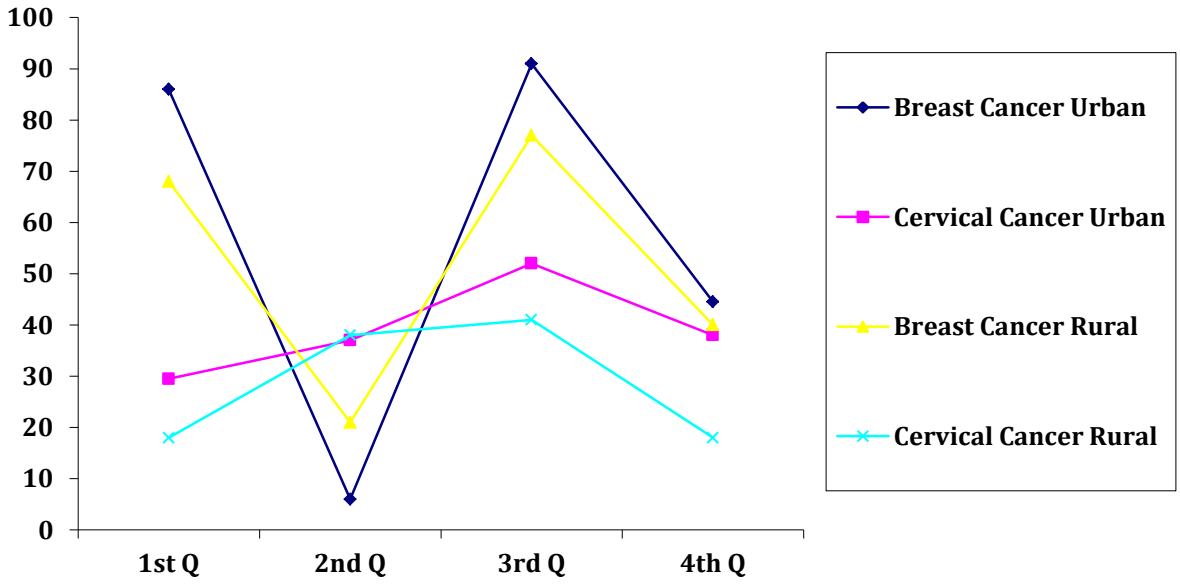

Figure 1. Comparison of Knowledge of Breast and Cervical Cancer among Urban and Rural dwellers

DISCUSSION

The result of our research shows that women in Niger Delta areas of Nigeria are more knowledgeable in breast cancer than in cervical cancer (57% against 39% for urban and 40% against 29% for rural dwellers), Table 2 and 4, although statistically there was no significant difference. This slight increase may be attributed to more enlightenment campaign on breast cancer than cervical cancer in the region. This result is consistent with Carmen et al., [14], where there were gaps in understanding regarding cervical cancer screening among socioeconomically disadvantaged women in Texas.

The few reported cases of cervical cancer in Nigerian hospitals may not reflect low cervical cancer incidence in the region [15], but poor knowledge, cost [16] and a negative attitude to the utilization of cervical cytology service, which is associated with strong cultural and religious factors [17] and the lack of available information about cervical cytology screening could account for underreporting [18].

In cervical cancer knowledge, respondents from the urban areas are more knowledgeable (39%) than the respondents from the rural areas (29%) but there was no significant difference table 1. Although some of the

studies in Nigeria show lower levels of cervical cancer knowledge than the present study [19-23]. In Ibadan, 19.7% were aware of Pap smear test [21]. In Maiduguri, less than 10% were aware of cytological screening and in Orlu, 6% were aware of Pap smear [19, 22]. Some other Studies in Nigeria recorded higher level of knowledge of cervical cancer, such as in Nnewi awareness was 87%, in Sagamu 78.3% in Ilorin 69.8% and in Benin 64% [18, 24-26].

In breast cancer knowledge, respondents from the urban areas where also more knowledgeable (57%) than the respondents from the rural areas (40%), it was also not significant statistically.

The overall result of this research indicates that the knowledge of both cancers is low in that region, which calls for attention. Knowledge is power, knowing about breast and cervical cancer in details will help in reducing the mortality rate caused by these cancers in undeveloped and developing countries. To achieve this, government and private sectors should incorporate cancer enlightenment programs into health centers and hospitals. The enlightenment program should be in cooperated during antenatal and postnatal teaching, posters and hand bills should always be posted and distributed, highlighting the key points of breast and cervical cancer. Jingles should always be on air in all radio and television stations.

REFERENCES

1. World Health Organization. 2002. Cervical cancer screening in developing countries: Report of a WHO Consultation.
2. Franco E.L., Schlecht N. F., & Saslow D. 2003. Epidemiology of cervical cancer. Cancer J. 9 (5), 348-59.
3. Onyije F. M., Eroje M. A., & Fawehinmi H. B. 2010. Trends in Cervical Cancer Incidence in the University of Port Harcourt Teaching Hospital. Continental J. Tropical Medicine. 4: 1 – 5.
4. Ziegler R.G., Hoover R. N., Pike M.C., Hildesheim A., Nomura A.M., West D. W., Wu-Williams A. H., Kolonel L. N., Horn-Ross P.L., Rosen-thal J. F. 1993. Migration patterns and breast cancer risk in Asian-American women. J Natl Cancer Inst, 85:1819-1827.
5. Bailie R. S., Selvey C. E., Bourne D. & Bradshaw D. 1996. Trends in Cervical Cancer Mortality in South Africa. Oxford University press release.
6. Population Reference Bureau (PRB) and Alliance for Cervical Cancer Prevention (ACCP). 2004. Preventing cervical cancer worldwide. Population Reference Bureau (PRB) and Alliance for Cervical Cancer Prevention (ACCP).
7. Ferlay J., Bray F., Pisani P., & Parkin D. M. 2002. Incidence rates are adjusted to account for differences in a gestructure across countries. GLOBOCAN.
8. Bishop A., Wells E. S., Sherris J. D., Tsu V. D., & Crook B. 1995. Cervical cancer: evolving prevention strategies for developing countries. Reproductive Health Matters, 6: 60-71.
9. Masood S. A. 1999. Plea for a worldwide volunteer cervical cancer education and awareness program. Acta Cytol, 43:539-42.
10. World Health Organization: Cancer. [http://www.who.int/media centre/factsheets/fs297/en]. accessed 30.07.2008
11. Adebamowo C. A. & Ajayi O. O. 2000. Breast cancer in Nigeria. West Afr J Med, 19: 179-191.
12. Landis S. H., Murray T., Bolden S., & Wingo P. A. 1998. Cancer statistics. CA Cancer J. Clin, 48: 6-29.
13. Miller B. A., Ries L. A. G., Hankey B. F., Kosary C. L., Harras A., Devesa S. S., & Edwards B. K. 1993. SEER Cancer Statistics Review: 1973–1990. Publication NIH 93–2789 National Cancer Institute Bethesda, MD.
14. Carmen R. B, Heidi C. P & Daniel M. B. 2005. Poor Knowledge Regarding the Pap test Among Low-Income Women Undergoing Routine Screening. Perspectives on Sexual and Reproductive Health, 37: 2.
15. Onyije F. M, Zenebo V. C & Oboma Y. I. 2010. Knowledge and Practice of Breast Cancer Self Examination among Female Students in Tertiary Institutions in Nigeria. Continental J. Biomedical Sciences, 4: 75 – 82
16. Obi S. N., Ozumba B. C., Nwokocha A. R., & Waboso P. A. 2007. Participation in higly subsidized cervical cancer screening by women in Enugu, south-east Nigeria. Journal of Obstetrics & Gynecology, 27: 3, 305-307.
17. Ezem B. U. 2007. Awareness and Uptake of Cervical Cancer Screening in Owerri, South-Eastern Nigeria. Annals of African Medicine, 6, 2: 94-98
18. Aboyeji P. A., Ijaiya M. A., & Jimoh A. A. 2004. Knowledge, attitude and practice of cervical smear as a screening procedure for cervical cancer in Ilorin, Nigeria. Trop J Obstet Gynaecol, 21:114-17.
19. Ojiyi E. O. & Dike E. I. 2008. Knowledge and practice of cervical cancer screening at the Imo State University Teaching Hospital, Orlu. PHMJ, 2 (2): 145-51.
20. Ayinde OA, Omigbodun AO, Ilesanmi AO. Awareness of cervical cancer, Papanicolaou's smear and it's utilisation among female undergraduates in Ibadan. African Journal of Reproductive Health 2004; 8(3):68-80.
21. Ogunbode O. O. 2005. Awareness of cervical cancer and screening in a Nigerian female market population. Annals of African Med, 4 (4):160-3.
22. Audu B. M., El-Nafaty A. U., Khalil M., & Otubu J. A. 1999. Knowledge and attitude to cervical ccancer screening among women in Maiduguri, Nigeria. J Obstet Gynaecol, 19 (3): 295-7.

23. Feyi-Waboso P. A., Kamaru C., & Aluka C. 2005. Awareness and risk factors for cervical cancer among women in Aba, south-eastern Nigeria. Trop Jr. of Obstetrics and Gynecology, 22 (1): 25-6.
24. Udigwe G. O. 2006. Knowledge, attitude and practice of cervical cancer screening (Pap smear) among female nurses in Nnewi, south eastern Nigeria. Niger J Clin Pract, 9 (1): 40-3.
25. Adefuye P. O. 2006. Knowledge and practice of cervical cancer screening among female professional health workers in a sub-urban district of Nigeria. Nig Med Practitioner, 50 (1): 19-22.
26. Gharoro E. P. & Ikeanyi E. N. 2006. An appraisal of the level of awareness and utilization of the Pap smear as a cervical cancer screening test among female health workers in a tertiary health institution. International Journal of Gynecological Cancer, 16 (3): 1063-68.