

Determinants of Cervical Cancer Knowledge and the Utilisation of Screening Among a Nigerian Female Population

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Abstract

Background: Cervical cancer remains a leading cause of death among females in the developing world, with poor prognosis attributed to lack of awareness about the disease and its prevention.

Objective: The study was aimed at providing useful information on socio-demographic factors determining the awareness of cervical cancer, pap smear and its utilisation among market women, a unique population of women from diverse socio-cultural backgrounds.

Methodology: This cross-sectional descriptive survey was carried out among 483 randomly selected market women at Aleshinloye market in November 2003 using a questionnaire probing into basic demographic characteristics, knowledge of cervical cancer and screening with Papanicolaou's smear as well as utilisation of the test. Variations of these parameters with socio-demographic factors were studied.

Results: The majority (79.5%) of the women were sexually active, 38.5% had early sexual debut and 33.7% had multiple sexual partners. Only 40.8% were aware of cervical cancer while 19.7% were aware of screening with pap smear. However, only 5.2% had had previous Pap smear. Identified determinants of awareness of cervical cancer and pap smear were age, marital status and level of education while utilisation of the screening test depended on the first two factors.

Conclusion: There is need for more intensive awareness campaign among market women and the general population, especially among the identified categories of the women who are less likely to have knowledge of cervical cancer and screening.

Key Words: Determinants, Screening, Cervical Cancer, Nigeria. [*Trop J Obstet Gynaecol*, 2005, 22: 21-24]

Introduction

Cervical cancer continues being dominant as a major cause of morbidity and mortality in women in the developing countries. It remains the most common malignancy amongst women in Nigeria, where an estimated 25,000 new cases are diagnosed annually^{1,2}. Apart from this, up to 75 percent of the cases are diagnosed in late stages, making cure impossible and 5 year survival rate low.

Previous reports have shown that the major factors responsible for the high case fatality associated with otherwise preventable tumour are poor knowledge about the disease and possible preventive measures against it^{3,4}. Also, some studies have identified socio-demographic predictors of cervical cancer knowledge and screening among various populations. The factors with positive correlates identified include being married, having higher income, longer years of education and age above 30 years⁶⁻⁸. These factors however vary among different populations. Seow et al (1995) concluded that the means of increasing awareness of cervical cancer and acceptance of pap smear should be culture specific⁹. This informed the conduct of this study, aimed at finding out the factors

associated with knowledge of women about the disease, pap smear and the extent of utilization of the screening test among Nigerian women.

A female market population was chosen for the study because of its importance as one of the major driving forces of the nation's economy and the diverse socio-cultural background of these women. Also, the women are strategically positioned to interact with people from various walks of life. Findings in them may give an insight into the operating factors in the larger society.

Materials and Methods

The study was a cross-sectional descriptive study. Multi-staged sampling technique was used. Aleshinloye market was chosen for the study from the eight major markets in Ibadan by simple random technique. It is a major multipurpose market located in Ibadan South-West Local Government Area. The market is made up of

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lock-up shops arranged in rows numbered from letters A-Z, with each row containing an average of forty shops. These were numbered serially for the purpose of this study. The total number of shops was 1046. The calculated minimum sample size using the formula by Kish, 1965^{13,14} was 386, based on 95% confidence interval and prevalence of awareness of 50 percent from a similar study among rural and urban women in South Africa. Deliberate over-sampling was done to the tune of 30% to make up for incomplete response. Therefore, a sample size of 499 was used. Working on the assumption that there would be an average of one female of fifteen years and above per shop, 500 random numbers were generated using the 'epitable' of EPI INFO 2002 statistical package (Centre for Disease Control, Atlanta, Georgia, USA). Only consenting females shop owners and attendants of ages 15 years and above in the randomly selected shops were included in the study. Customers and visitors were excluded.

The women selected were interviewed by trained interviewers using a structured questionnaire in November, 2003. The questionnaire was designed to elicit basic demographic characteristics, knowledge of cervical cancer and screening with Papanicolaou's smear as well as extent of utilization of the screening test. Pre-testing of the questionnaire was done among 20 respondents before the final version was developed. A preliminary visit was made to the market head to intimate the market population about the survey, thereby aiming to increase co-operation and reliability.

The data was entered into a computer running EPI INFO 2002 software. Initial analysis was by generation of frequency tables. Factors, including marital status, educational level, age and daily income were studied to find out the possible determinants of knowledge of cervical cancer, awareness and utilization of Papanicolaou's smear among the respondents. Observed differences were subjected to Chi square test and the level of statistical significance was set at $p < 0.05$.

Results

Four hundred and eighty-three out of four hundred and ninety-nine questionnaires administered (96.8%) were analysable. Table 1 shows some socio-demographic characteristics of respondents. Their ages ranged between 15 and 66 years with the modal age group being 20 to 29 years. The commonest item being sold by 203 respondents (42.0%), followed by clothing and textile materials being sold by 92 respondents (19.0%). Others sell kitchen wares (6.4%), provisions (6.2%), cosmetics

(4.6%), electrical appliances (0.6%) and a host of other items (21.1%). Many of the respondents (44.1%) had an average daily profit estimate of less than one thousand naira while only 11.8% make above five thousand naira gain per day. One United States Dollar exchanged for 135 Naira at the time of the study. Majority of respondents (56.3%) had secondary education. Only twenty-one (4.4%) had postgraduate education while forty-seven (9.7%) had no formal education. Three hundred and thirty-eight (70.0%) practised Christianity, one hundred and forty-one are Muslims while one (0.2%) and three (0.6%) practised traditional religion and other faiths respectively. Three hundred and seventy one respondents (76.8%) were Yorubas while Igbos, Hausas and other ethnic groups account for eighty (5.6%), twelve (2.5%) and twenty (4.1%) respectively. Majority (55.5%) of the women were married while 38.9% were single. The others were divorced, widowed or separated. Two hundred and forty-nine (59.3%) were parous. Out of these, one hundred and fifty-nine (32.9%) were multiparas while seventy-three (15.1%) were grandmultiparas.

Table 1:
Socio-Demographic Characteristics of Respondents

Characteristics	Frequency	Percentage
<i>Age (Years)</i>		
Below 20	43	8.9
20-29	204	42.2
30-39	108	22.4
40-49	75	15.5
50-59	37	7.7
Above 60	16	3.3
<i>Highest Educational Level</i>		
No formal education	47	9.7
Primary	75	15.5
Secondary	272	56.3
Tertiary	68	14.1
Post-graduate	21	4.4
<i>Daily Profit (Naira)</i>		
Below 1000	213	44.1
1000-2000	137	28.4
2000-5000	76	15.7
Above 5000	57	11.8
<i>Marital Status</i>		
Married	268	55.5
Single	188	38.9
Divorced	3	0.6
Widowed	17	3.5
Separated	7	1.4
Total	483	100.0

Only one hundred and ninety seven respondents (40.8%) were aware of cervical cancer. Of these, ninety-five (19.7%) were aware of pap smear as a screening test. However, only twenty-five respondents (5.2%) have had previous Pap smear done.

Table 2 illustrates the possible influence of some socio-demographic factors of respondents on awareness of cervical cancer, Papanicolaou's smear and utilization of the screening test. Forty-seven percent (47%) of women of age 30 years and above had knowledge of cervical cancer compared to 34.8% of younger respondents ($\chi^2 = 7.46$, $df = 1$, $p = 0.006$). Pap smear awareness was found in 26.7% and 13.0% of the former and latter respectively ($\chi^2 = 14.42$, $df = 1$, $p = 0.0002$). Similarly, 7.2% and 3.2% of the respective age groups had done previous Papanicolaou's smear ($\chi^2 = 3.86$, $df = 1$, $p =$

0.049). Significantly higher proportion of currently or previously married women (46.1%) was aware of cervical cancer when compared with single ones (32.4%). $\chi^2 = 8.86$, $df = 1$, $p = 0.0029$. Similarly, 33.2% of the former compared to 14.4% of the latter were aware of Papanicolaou's smear ($\chi^2 = 5.49$, $df = 1$, $p = 0.019$). Likewise Papanicolaou's smear utilization rates in the two groups were 7.8% and 2.1% respectively ($\chi^2 = 7.03$, $df = 1$, $p = 0.008$). Also, significantly higher percentage of women with secondary education and above (44.1%) were aware of cervical cancer in comparison with 31.7% for women with lower educational status ($\chi^2 = 5.85$, $df = 1$, $p = 0.016$). In the contrary, there was no significant difference in the level of awareness ($\chi^2 = 2.50$, $df = 1$, $p = 0.114$) and utilization of Papanicolaou's smear ($\chi^2 = 0.96$, $df = 1$, $p = 0.328$) based on differences in educational background.

Table 2:
Some Determinants of Awareness of Cervical Cancer, Papanicolaou's Smear and Utilisation of Screening.

Characteristics (n)		% Aware of Cervical Cancer	χ^2	P
<i>Age</i>	Age \geq 30 years (247)	47.0	7.46	0.006
	Age < 30 years (236)	34.8		
<i>Marital Status</i>	Currently or previously married (295)	46.1	8.86	0.003
	Single (188)	32.4		
<i>Education</i>	Primary Education and Below (123)	31.7	5.85	0.016
	Secondary Education and above (358)	44.1		
% Aware of Pap Smear				
<i>Age</i>	Age \geq 30 years (247)	13.0	14.42	0.000
	Age < 30 years (236)	26.7		
<i>Marital Status</i>	Currently or previously married (295)	33.2	5.49	0.019
	Single (188)	14.4		
<i>Education</i>	Primary Education and Below (123)	14.6	2.50	0.144
	Secondary Education and above (358)	21.5		
% Utilisation of Pap Smear				
<i>Age</i>	Age \geq 30 years (247)	3.2	3.86	0.049
	Age < 30 years (236)	7.2		
<i>Marital Status</i>	Currently or previously married (295)	7.8	7.03	0.008
	Single (188)	2.1		
<i>Education</i>	Primary Education and Below (123)	3.3	0.96	0.328
	Secondary Education and above (358)	5.6		

Discussion

Most women in the developing world are at considerable risk of developing cervical cancer because of the prevalence of high risk sexual behaviours^{3,4}. The situation is further worsened by the fact that many of these women are poorly informed about the disease and its prevention^{3,4}. Since the market woman typifies an average woman in the society, it is therefore not surprising that the findings in this study conform to what has been previously reported among other populations. A vast majority (59.2%) of the women had no knowledge about the disease called cervical cancer. Also, 80.3% were unaware of pap smear, the most widely used screening test for the disease and as much as 94.8% of the women had never had the test.

In the study, age and marital status were found to be important determinants of knowledge of cervical cancer, pap smear and its utilization. Single women and those under the age of 30 years are less likely to know about the disease and pap smear, the most widely used

screening test. Also, they are less likely to make themselves available for cervical screening. These were similar to the findings in an Australian study by Siahpush and Singh, 2002⁹. The level of education was found to determine the awareness of cervical cancer. It had no significant influence on awareness of pap smear or its utilisation. This was at variance with the findings of Skaer et al in which higher levels of education had positive influence on the use of pap smear⁶. Likewise, the positive correlation between income and utilisation of cervical screening reported in the same study was not found in our study.

In conclusion, the need for more intensive awareness campaign and well organized screening programmes among market women and the rest of the female population cannot be over-emphasised. More efforts are particularly needed in reaching the identified categories of the women who are less likely to have knowledge of cervical cancer and screening.

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