

## Knowledge, Attitude, And Practice of Female Health Professionals Regarding Cervical Cancer and Pap Smear

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### ABSTRACT

**Background:** The objectives of this paper was to determine what female health professionals knew and felt about cervical cancer and Pap smear and their uptake of Pap smear.

**Methods:** A questionnaire survey of 144 female health professionals at two referral hospitals with facilities for Pap smear.

**Results:** Nurses constituted 52.8% of respondents followed by laboratory scientists (18.8%), doctors (14.6%) and pharmacists (13.9%). One hundred and thirty two (91.7%) respondents had heard of cervical cancer and 80.6% knew it was associated with vaginal bleeding. Twenty two percent could not list any risk factor. A significantly greater proportion of doctors (100%) knew the purpose of a Pap smear compared to 59.2% of nurses, 50% of pharmacists and 48.1% of laboratory scientists ( $p = 0.003$ ). Only 13 respondents (9%) had ever had a Pap smear with doctors ( $p = 0.003$ ) and divorced/separated women ( $p = 0.005$ ) significantly more likely to have done so. Perceived non-availability of Pap smear service was the main reason (51.3%) for not having had a Pap smear. However, 30.3% had not thought of it or did not consider themselves at risk of cervical cancer.

**Conclusion:** Health professionals themselves need to be properly informed about cervical cancer and Pap smears because of their own needs as women and also to improve their effectiveness in educating and encouraging other women to have Pap smears. Available Pap smear services should be publicized and made more affordable.

**KEYWORDS:** Cervical cancer; Female health professional; Pap smear.

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### INTRODUCTION

Cancer of the cervix is the commonest malignancy of the female genital tract in Nigeria<sup>1,2</sup>. In some centres, it is the commonest malignancy in women<sup>3</sup>. It is also a leading cause of death among women, essentially as a result of late presentation with advanced disease<sup>4,5</sup>.

Organized screening programs, which have enabled early detection and treatment with good

outcome in developed countries<sup>6,7</sup>, are absent in Nigeria. In view of the magnitude of the problem posed by cervical cancer and the effectiveness of screening programs in reducing morbidity and mortality associated with it<sup>8</sup>, the introduction of a national screening programme is long overdue.

However, the success of such a program depends to a large extent on women's acceptance of and compliance with the service<sup>8</sup>. These in turn are related to their knowledge of and attitude to cervical cancer<sup>9</sup>. Health professionals, particularly females, have been shown to be important in improving women's acceptance of and compliance with screening programmes<sup>10-12</sup>. Since their effectiveness in this regard is probably related to their own knowledge of and attitude to cancer and cancer prevention, we sought to assess their knowledge and attitudes towards cervical cancer prevention/detection. In addition, being women, they are also at risk of developing cervical cancer and need regular Pap smears. We, therefore, assessed their uptake (practice) of Pap smear.

### MATERIALS AND METHODS

We undertook a questionnaire survey of female health workers at two institutions in South Eastern Nigeria. Both institutions serve as referral centres and are in neighbouring states. They were selected because they were training institutions and had facilities for Pap smear. The study assessed knowledge, attitude, and practice regarding cervical cancer and Pap smears for the prevention of cervical cancer.

Knowledge was assessed by asking respondents i) if they had heard of cervical cancer/Pap smear, ii) risk factors and symptoms of cervical cancer, iii) whether it was preventable/curable, and iv) the function of Pap smear. Attitude was assessed by asking whether the respondents i) considered cervical cancer a serious problem, and ii) would recommend or have regular Pap smears if affordable. Practice was simply having had a Pap smear. Respondents were asked to give reasons for not having had a Pap smear.

The questionnaires were delivered and retrieved by hand. Appropriately, filled questionnaires were

then analyzed. Odds ratio with 95% confidence intervals and chi-square test for independent proportions were calculated using EPI-INFO version 6.02.

**RESULTS**

One hundred and forty-four adequately completed questionnaires were analysed out of 160 questionnaires which were distributed. The results from the two hospitals were similar. They are presented together.

**Age, marital status and profession**

Two-thirds (66.6%) of respondents were aged 30-49 years while 51.2% were married (Tables I). Table I also shows that nurses (52.8%) constituted the largest group of female health professionals studied because of their large numbers in the nursing profession compared to the other professions.

**Knowledge of cervical cancer and Pap smear.**

One hundred and thirty two respondents (91.7%) had heard of cervical cancer while 80.6% knew it was associated with abnormal vaginal bleeding. Thirty two respondents (22.2%) could not list any risk factor for cervical cancer. The responses varied according to profession as displayed in Table II. Forty seven (32.6%) believed it was potentially curable and 102 (70.8%) that it could be prevented. One hundred and twelve respondents (77.8%) reported they had heard of Pap smear but only 89 of them (79.5%) indicated it was used for the prevention of cervical cancer. Figure 1 shows that the proportion of doctors (100%) who knew that cervical cancer was preventable significantly greater than other professions ( $p = 0.004$ ). The proportion of doctors (100%) who knew the function of Pap smear was also significantly greater than other professions ( $p = 0.003$ ). The difference with respect to the potential for cure was not statistically significant.

**Attitude and uptake of Pap smear**

One hundred and seventeen respondents out of the 132 (88.6%) who had heard of cervical cancer considered it a serious problem. Out of 89 respondents who knew the purpose of a Pap smear, 82 (92.1%) would recommend regular Pap smears if these were affordable.

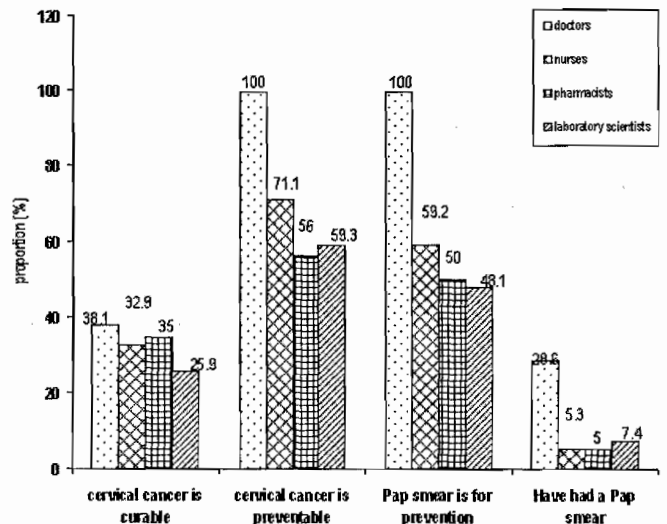
Only 13 respondents (9%) had ever had a Pap smear. Profession and marital status were the two determinants of likelihood to have had a

Pap smear. Doctors ( $p = 0.003$ ; OR, 6.63, 95% CI, 1.97 - 22.36) and divorced/separated women ( $p = 0.005$ ; OR, 6.82, 95% CI, 1.90 - 24.44) were significantly more likely to take up Pap smears. Table II shows that among pharmacists and laboratory scientists, only divorced/separated women had had a Pap smear.

Table III displays the reasons (given by 76 respondents who knew what the Pap smear was used for) for not having had a Pap smear. The majority (51.3%) said this was because it was not available. However, 30.3% had not thought of it or did not consider themselves to be at risk of cervical cancer.

**Table I. Age, marital status and profession of 144 respondents.**

	Number	%
Age groups (years)		
20-29	41	28.5
30-39	50	34.7
40-49	46	31.9
50+	7	4.9
Marital status		
Single	32	22.2
Married	78	54.2
Divorced/separated	16	11.1
Widowed	18	12.5
Profession		
Doctors	21	14.6
Nurses	76	52.8
Pharmacists	20	13.9
Laboratory scientists	27	18.8



**Figure 1. Knowledge and practice according to profession.**

**Table II. Marital status and profession of respondents who had Pap smears.**

	Doctors	Nurses	Pharmacists	Laboratory Scientists
Single n = 32	1	1	0	0
Married n = 78	3	2	0	0
Divorced/separated n = 16	1	1	1	2
Widowed n = 18	1	0	0	0

**Table III. Reasons for non-uptake of Pap smear among 76 respondents who knew its purpose**

Reasons	Number	%
Not available	39	51.3
Have not thought of it	17	22.4
Cannot afford it	14	18.4
No personal risk of cervical cancer	6	7.9

## DISCUSSION

The results of this study show that female health workers in Nigeria have a higher knowledge of cervical cancer, its early symptoms and prevention than women without formal medical education. More than 90% of female health workers had heard of cancer of the cervix compared to 15% reported among Nigerian women without formal medical education<sup>13</sup>. This is not surprising since our study population would have acquired this knowledge in the course of their education. In contrast, peers and the media were the main sources of information for women without medical education<sup>13</sup>.

However, there were significant deficiencies in knowledge with respect to risk factors, the possibility of prevention and the potential for cure. Furthermore, about one quarter of health workers had not heard of Pap smear and even among those who reported they had heard, one fifth did not know what it was for. Thus, it cannot be assumed that female health professionals are sufficiently informed about cervical cancer and Pap smears. We observed that the pattern of response was related to profession, with doctors being the most knowledgeable. This is probably because doctors were likely to have received more

detailed instruction about cervical cancer and Pap smears in the course of their training than other health workers. However, most doctors did not believe it was curable but were more knowledgeable on this point than the other health workers.

It is expected that wider knowledge of cervical cancer and its prevention will be associated with preventive behaviour, in this case, having a Pap smear<sup>9</sup>. Unfortunately, only 9% of the female health workers surveyed reported having had a Pap smear. Here again, doctors were significantly more likely to have had a Pap smear than other health workers. This probably reflects better appreciation of personal risk based on better knowledge about cervical cancer and its prevention and may also be why divorced or separated women were significantly more likely to have had Pap smears. The main reason for the poor uptake was perceived non-availability of the service despite its availability at both hospitals. This may be because Pap smears are taken in the gynaecology clinic and this was not well publicized. Respondents who had not thought of having a Pap smear or did not feel at risk of developing cervical cancer were also important as their attitude may indicate a poor appreciation of cervical cancer in its entirety.

This study is significant not only because of the importance of female health workers in promoting cervical cancer screening in Nigeria but also because of their own cervical cancer screening needs. The results indicate that female health workers need more education on all aspects of cervical cancer and its prevention to enhance their uptake of Pap smears through an enhanced appreciation of personal risk. This would also increase their effectiveness in promoting positive attitudes towards cervical cancer prevention within the community. While awaiting the introduction of an organized cervical cancer screening program, awareness should be created about the benefits and availability of already existing facilities for cervical cancer prevention/early detection.

## REFERENCES

1. Megafu U. Cancer of the genital tract among Ibo women in Nigeria. *Cancer* 1979; 44: 1875-8.
2. Egwuatu VE. An analysis of tumours of the female genital tract in Enugu, Nigeria (1973-1979): a hospital based tumour registry review. *Bull Cancer (Paris)* 1980; 67: 535-9.
3. Ayinde AE, Adewole IF, Babarinsa IA. Trends in cervical cancer screening in Ibadan, Nigeria: a four-

- year review. *West Afr J Med* 1998; 17:25-30.
4. Briggs ND, Katchy KC. Pattern of primary gynaecological malignancies as seen in a tertiary hospital situated in the Rivers State of Nigeria. *Int J Gynaecol Obstet* 1990; 31:157-61.
  5. Emembolu JO, Ekwempu CC. Carcinoma of the cervix uteri in Zaria: aetiologic factors. *Int J Gynaecol Obstet* 1988; 26:265-9.
  6. Miller AB, Lindsay J, Hill GB. Mortality from cancer of the uterus in Canada and its relationship to screening for cancer of the cervix. *Int J Cancer* 1976; 17: 602-12.
  7. Laara E, Day NE, Hakama M. Trends in mortality from cervical cancer in the Nordic countries: association with organised mass screening programmes. *Lancet* 1987; i:1247-49.
  8. Conway K. Attitudes to Papanicolaou smears. *J Psychosomatic Obstet Gynaecol* 1996; 17:189-94.
  9. Dignan M, Michielutte R, Blinson K, *et al.* Effectiveness of health education to increase screening for cervical cancer among Eastern-band Cherokee Indian women in North Carolina. *J Natl Cancer Inst* 1996; 88: 1670-6.
  10. Schwartz M, Savage W, George J, Emohare L. Women's knowledge and experience of cervical screening: a failure of health education and medical organization. *Community Med* 1989; 11:279-89.
  11. Ansell D, Lacey L, Whitman S, Chen E, Phillips C. A nurse-delivered intervention to reduce barriers to breast and cervical cancer screening in Chicago inner city clinics. *Public Health Rep* 1994; 109:104-11.
  12. Lurie N, Margolis KL, McGovern PG, Mink PJ, Slater JS. Why do patients of female physicians have higher rates of breast and cervical cancer screening? *J Gen Intern Med* 1997; 12:34-43.
  13. Ajayi IO, Adewole IF. Knowledge and attitude of general outpatient attendants in Nigeria to cervical cancer. *Cent Afr J Med* 1998; 44:41-3.