Original Article

Knowledge of cervical cancer and patronage of cervical cancer screening services among female health workers in Kumasi, Ghana.

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ABSTRACT

AIM To determine knowledge about cervical cancer, and patronage of cervical cancer prevention services among female health workers in Kumasi.

METHODS An 11-item structured questionnaire containing items on characteristics and knowledge of respondents on risk factors, symptoms and prevention of cervical cancer was administered to a total of 361 female health workers in three health institutions.

RESULTS Nurses constituted 63.4% of respondents, health care assistants 15%, doctors 2.5%, pharmacists 2.2% and support staff 16.9%.

The majority of respondents 303 (83.9%) considered cervical cancer to be a life-threatening condition. Fifty five percent of respondents said the cause of cervical cancer was related to sexual activity whilst 33% of them said cervical cancer and sexual activity were not related.

Fifty five percent knew at least three risk factors and 58% knew at least three symptoms of cervical cancer. Seventy five percent of the respondents said cervical cancer was a preventable disease but only 11.6% of respondents had ever been screened for cervical cancer. Of all the respondents, 16.1% mentioned Pap smear and 4.4% mentioned VIA (Visual Inspection with Acetic Acid) as screening tools for cervical cancer. There was generally poor knowledge of the location of screening centres, age at which screening should start and screening intervals among respondents.

CONCLUSIONS Female health workers in Ghana should be sensitised to patronise the few screening centres available now as they could then play a pivotal role in educating and encouraging other women to make use of these centres. Clear national policy guidelines on cervical cancer screening should be useful.

Keywords: Cervical cancer; Screening; Health personnel; Papanicolaou Smear; Awareness.

INTRODUCTION

Cervical cancer, although largely preventable, remains the most common gynaecological cancer in Sub-Saharan Africa.[1-2] It is an important reproductive health problem for women in developing countries, where over 80% of the 231,000 annual deaths from cervical cancer occur.[3-5] In a study of the patterns of gynaecological cancers at the Korle-Bu Teaching Hospital, Accra, Ghana, cervical cancer was the commonest gynaecological cancer, constituting about 57.8% of all the gynaecological cancers.[6]

Human papilloma virus (HPV) DNA can be identified in nearly all specimens of invasive cervical cancer, and it is claimed that infection of the cervix with HPV is an important cause of cervical cancer.[7] Over 100 different HPV subtypes are known and those that are considered "high risk" for cervical cancer are types 16, 18, 45 and 55.[8] Following infection with the high risk HPV subtypes, cervical intra-epithelial neoplasias develop. The majority of these will regress but a small percentage of them will progress to invasive cervical cancer over a long period of time.[8] The long natural history of these precancerous lesions is the basis of the various screening programmes for the prevention of cervical cancer.[4, 8-9] Prevention of the disease involves identifying and treating women with HPV induced pre-cancerous lesions of the cervix.[4] In the developed countries where effective screening, treatment and follow up programmes for these pre-cancerous lesions exist, the mortality from cervical cancer has reduced by about 70%.[10] In developing countries including Ghana cervical cancer screening programmes have not been so successful. Some of the reasons given for this are lack of awareness among women about the disease itself, limited screening programmes, lack of resources and ineffective use of available resources.[4]

Screening for cervical cancer was started at Komfo Anokye Teaching Hospital (KATH) in May 2004 by JHPIEGO (John Hopkins Programme for International Education in Obstetrics and Gynaecology) using visual inspection with acetic acid (VIA) method. From the inception of the screening programme to November 2006, a total of 1797 women had been screened at two centres in the Kumasi metropolis; 1432 (79.7%) were screened by the VIA method, while 365 (20.3%) did the traditional Pap smear. The figure of 1797 constitutes about 0.5% of women in the fertile age (WIFA) within the Kumasi metropolis. Factors contributing to such a low patronage rate need to be explored.

SUBJECTS AND METHODS

A descriptive cross-sectional study was conducted among female health workers at the Komfo Anokye Teaching Hospital (KATH), Suntreso and Manhyia District hospitals all in the Kumasi metropolis. KATH is the second largest hospital in Ghana and serves as a major referral centre as well as a Teaching Hospital for the Kwame Nkrumah University of Science and Technology School of Medical Sciences (KNUST-SMS). Apart from KATH, the Manhyia and Suntreso District Hospitals are the biggest public health institutions in the Kumasi metropolis. These institutions were selected for study not only because they have large numbers of female workers, but also because they are quite close to each other, and therefore more convenient for carrying out the study.

The study assessed knowledge about cervical cancer and patronage of cervical cancer prevention services among females working in the health institutions mentioned above. The lists of all the female workers in the listed health facilities involved in the study were obtained from the unit heads. These were then cross-checked with the Head of human resources unit of KATH and the personnel departments of the district hospitals. Students, those who were on leave and all women who had total hysterectomy done were excluded from the study. The number of respondents for each institution was calculated using probability proportional to size. Systematic random sampling was then used to select the respondents from each institution using the list of female workers who met the inclusion criteria as per the sampling register. The study was conducted in November and December 2006.

Five hundred 11-item (pre-tested in another district hospital) structured questionnaires were distributed for self-administration by all the consenting female workers who met the study criteria. The

participants answered both coded and open-ended questions about knowledge of cervical cancer, and patronage of cervical cancer screening services. The questionnaires were retrieved directly from the respondents.

Knowledge of cervical cancer was considered to be good if a respondent mentioned at least three of the known risk factors for cervical cancer (early onset of sexual activity, multiple sexual partners, multiparity, human papilloma virus infection) and at least three of the symptoms of cervical cancer (inter-menstrual bleeding, offensive vaginal discharge, postmenopausal bleeding and post-coital bleeding).

Knowledge about eligibility for screening and screening interval was elicited in accordance with guidelines for VIA at the Family Planning Centre of the Komfo Anokye Teaching Hospital. According to these guidelines, screening should start at the age of 25 years and repeated at 5 yearly intervals until 45 years of age. After 45 years, screening by Pap smear was recommended. Those who had abnormalities were treated with cyrotherapy or referred to the specialist gynaecology clinic for further management.

Patronage was assessed by determining whether the participants had themselves been screened for cervical cancer. The reasons given for not screening were also elicited.

Female health workers refer to the female workers in the three health institutions mentioned earlier and not necessarily those with professional medical training. The data was entered and processed using the SPSS software (version 11.5).

The study protocol was approved by the local ethical committees of KATH and the district hospitals.

RESULTS

Of the 500 questionnaires distributed, 361 were completed and returned, giving a response rate of 72.2%. Nurses constituted 63.4% of respondents, health care assistants 15%, doctors 2.5%, pharmacists 2.2%, and support staff comprising accountants, health administrators and secretaries constituted 16.9%. The mean age of the respondents was 39.3 (SD 12.6) years and the mean parity was 2.6 (SD 1.7). Of all the respondents, 57.3% were married, 35.1% were single, 5.3% widows, 1.7% divorced and 0.6% separated.

The majority of respondents 303 (83.9%) considered cervical cancer to be a life-threatening condition (Table 1). The commonest reasons participants gave for cervical cancer being life-threatening were: it can be fatal, causes haemorrhage and anaemia, and is difficult to treat.

There was good knowledge of the risk factors and symptoms of cervical cancer among participants. Fifty five percent of respondents said the cause of cervical cancer was related to sexual activity whilst 33% of them said cervical cancer and sexual activity were not related.

Fifty five percent knew at least three risk factors and 58% knew at least three symptoms of cervical cancer (Table 1).

Majority of the participants, (77.0%) said cervical cancer was a preventable disease but only 11.6% of respondents had ever been screened for cervical cancer (Table 1). Only 58 (16.1%) mentioned Pap smear and 16 (4.4%) mentioned VIA (Visual Inspection with Acetic Acid) as screening methods for cervical cancer. Of the 361 respondents 345 (95.6%) were eligible for screening. The rest, 4.4% were below 25 years of age and therefore ineligible for screening.

Many and varied reasons were given by the participants for not screening. These included: fear, not knowing where to go for screening, was never told to screen, no confidentiality, not having symptoms of cervical cancer, cost, and no specific reasons.

There was generally poor knowledge of the location of screening centres, age at which screening should start and screening intervals among respondents. Only 10.8% of respondents knew the correct age to start screening and 7.2% knew the correct interval for screening. However majority of the participants (79.8%) said screening should continue even after the menopause.

Table 1. Study questionnaire responses

Response	Number	Percentage
Is cervical cancer a life-threatening condition?		
Yes	303	83.9
No	32	8.9
Don't know	20	5.5
No responses	6	1.7
Total	**361**	**100**
Knowledge of risk factors for cervical cancer		
Multiple sexual partners	232	64.4
Early onset of sexual activity	224	61.9
Human papilloma virus (HPV) infection	230	63.8
Suppressed immunity	114	31.5
Knowledge of symptoms of cervical cancer		
Postmenopausal bleeding	278	77.0
Post-coital bleeding	261	72.4
Offensive vaginal discharge	207	57.8
Inter-menstrual bleeding	197	54.6
Number of respondents ever screened		
Ever screened	40	11.6*
Never screened	295	85.5*
Did not respond	10	2.9*
Total eligible for screening	**345**	**95.6**
Not applicable (< 25 years)	**16**	**4.4**

*Percentage of participants eligible for screening.

DISCUSSION

The majority of the respondents in the study correctly identified cervical cancer as a serious condition which is often fatal. This was expected as most of the respondents were professional health care workers who may have come into contact with cervical cancer patients in gynaecological wards during the course of training or as workers. The participants in the study also demonstrated a high level of knowledge about the risk factors and symptoms of cervical cancer. This finding is consistent with results of similar studies carried out in other parts of Africa.[11- 12]

There was, however, a worrying low uptake of the cervical cancer prevention programme. This has been reported in similar studies.[11, 13] In a study among 205 female health workers regarding knowledge, attitude and practices related to cervical cancer prevention in Ibadan, Nigeria, 93.2% of the respondents had never had Pap smears performed.[14]

The study showed a big gap between knowledge of cervical cancer and patronage of cervical screening services even among female health workers who should act as role models for other women by getting themselves screened and encouraging other women to do the same. The reasons cited by the respondents for not screening should be overcome by properly organised educational programmes and improvement in the quality of service delivery.[15]

Regarding the issue of cost cited by some of the respondents for not screening, studies comparing different methods of cervical cancer screening in developing countries have shown that well organised programmes using VIA are cost effective and save lives.[16-17] At KATH a Pap smear costs about 24.00 Ghana Cedis (about 18 US dollars) while VIA costs 4.50 Ghana Cedis (about 3 US dollars). This is much less than the several hundreds of dollars used to provide radiotherapy and surgical services to cervical cancer patients, and which may not cure most of the patients since they present with advance disease in most cases.[4,6]

There is also need for sensitisation of female health workers about cervical cancer and the importance of screening. Studies have shown that screening even once in a lifetime can bring about significant reduction in mortality from cervical cancer.[18]

CONCLUSION

Though there are no organised national programmes for cervical cancer screening in Ghana today, female health workers should be sensitised to patronise the few screening centres available now. They could then play a pivotal role in educating and encouraging other women to make use of these centres.
There is also a need for clear national policy guidelines on cervical cancer screening. Well organised and accessible screening services should be made available in the country, matched with good treatment modalities and follow up programmes for those screened.

FOOTNOTES

Conflicts of interest: The authors declare no competing conflicts of interest

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