



Is prevention and control of cervix cancer a priority amongst future health care providers in India?

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Abstract

Despite being a preventable cancer burden, cervix cancer remains an important public health problem in India. Major reasons behind this are lack of awareness both in the health care providers and community as well as availability of the resources at all the levels of the existing health care system. Present study explores level of knowledge, attitude and practices about cervix cancer prevention and control among medical and nursing students of a medical college in Mumbai, India.

Randomly selected 72 (48%) medical and 78 (52%) nursing students from a medical college in Mumbai who have been taught about cervix cancer were included after obtaining written informed consent. Strict confidentiality was maintained during data collection and analysis. All necessary permissions were obtained.

There were significant differences in the medical and nursing students as far as knowledge about presenting symptoms of cervix cancers ($P= 0.016$), cause of cervix cancer ($P= 0.000$), availability of Human Papilloma Virus (HPV) vaccine ($P= 0.000$) respectively. Though 12(27.27%) of female medical and 17 (27.86%) of nursing students have perceived risk of getting cervix cancer, only 3(4.16%) medical students and 7 (8.97%) of nursing students have completed HPV vaccination.

A gap existed between knowledge, attitude and practices of undergraduate nursing and medical students. Well sensitized health care providers can play an important role in the cervix cancer prevention and control activities in our country.

Keywords: cervix cancer, prevention, control, future health care providers, India

Introduction

With estimated 528,000 new cases in 2012, uterine cervix cancer is the fourth most common genital tract malignancy in women. It accounts for 7.5% of all female deaths globally where almost 9 out of 10 cervical cancer deaths occur in less developed regions.¹

India bears approximately one fourth burden of cervix cancer related morbidity and mortality. Unlike many cancers, cervix cancer is characterized by precancerous stage which can be screened and treated effectively if detected early.^{2,3} Despite being a preventable cancer burden, it remains an important public health

problem in our country. Major reasons behind this are lack of awareness and numerous socio-cultural barriers for being women in conservative society. Another reason is unavailability of screening facilities for cervix cancer at all levels health care services, mainly due to less priority for the same amongst policy makers and health care providers. There is variable levels of literacy about prevention and control of cervix cancer among health care providers worldwide.⁴⁻²⁰ As compared to doctors nurses devote more time to render patient care, hence can play a crucial role in the health seeking behaviour of the patients. However not much is known as far as their attitude and practices about cervix cancer prevention. Present study explores knowledge, attitude and practices about cervix cancer prevention and control among medical as well as nursing students of a medical college in Mumbai, India.

Aim

To assess the knowledge, attitude and practices related to cervical cancer among medical and nursing students of a teaching medical institution in Mumbai, India.

Objectives

1. To assess the knowledge, attitude and practices about cervix cancer among the medical and nursing students.
2. To give suitable recommendations based on the findings of the present study.

Methodology

A cross sectional study was conducted amongst medical and nursing students of a medical college in Maharashtra, India to assess their knowledge, attitude and practices about cervix cancer. Institutional Ethical committee approval and informed consent of the subjects was obtained prior to the start of the study. Permission to undertake study among medical and nursing students was obtained from the concerned authorities. Randomly selected 150 students were approached which included 72 (48%) final year

medical and 78 (52%) nursing students who have been taught about cervix cancer in their curriculum. After explaining nature of the study, written informed consent was obtained from those willing to participate. Knowledge, attitude and practices regarding epidemiology, prevention and control measures about cervix cancer were assessed from all 150 participants through pretested questionnaire. Strict confidentiality was obtained in the process of data collection. The data was entered and analyzed in Epi Info 7.2.2.6.

Results

Cervix cancer was perceived as a public health concern among 71(98.61%) medical students as compared to 49(62.82%) nursing students. More number of nursing students 61 (78.2%) attributed cervix cancer as a growth of abnormal cells as compared to medical students 51 (76.38%). Knowledge of the participants regarding cervix cancer prevention and control is presented in the table number 1.

Awareness about Pap smear as screening a technique for cervix cancer was highest than the other methods both amongst medical [66(91.66%)] and nursing students [49 (62.82%)] respectively. More number of the nursing students were aware about colposcopy [9(11.53%)] and HPV testing [14(17.94%)] respectively while these were known to only 1(1.38%) of the medical students respectively. Awareness about Visual Inspection of Cervix with Acetic Acid (VIA) as a screening method for cervix cancer was almost similar in both the medical and nursing students [3(4.16%)]. Visual Inspection of Cervix with Lugol's Iodine (VILI) was known as a cervix cancer screening technique to 1(1.38%) of medical and 2 (2.56%) of nursing students respectively.

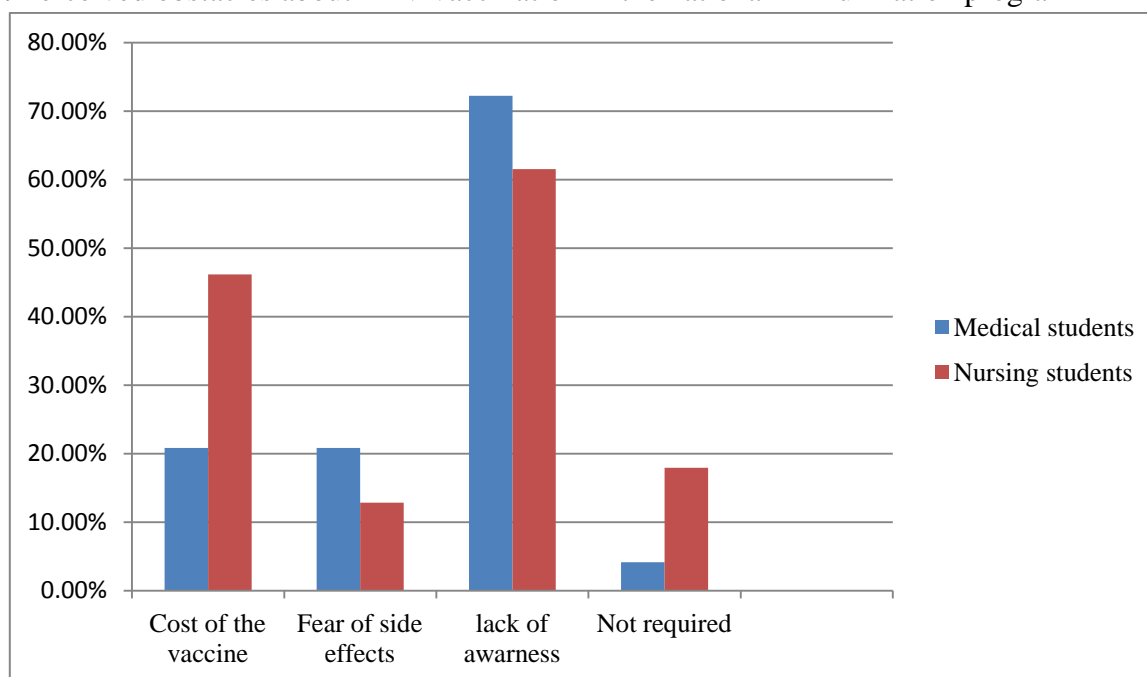
Attitude and practices of the participants towards cervical cancer prevention and control are shown in the table 2.

More of number of [14 (17.94%)] nursing students thought that inclusion of HPV in the national immunization program was not required

as compared to [3(4.16%)] medical students. Obstacles perceived by the participants regarding inclusion of HPV vaccination in the national

immunization program are presented in the graph number 1.

Graph 1: Perceived obstacles about HPV vaccination in the national immunization program



Significantly more number of nursing students [36(46.15%)] searched on internet about HPV vaccination as compared to medical students [21(29.16%)] (p value: 0.0322). Only [3(4.16%)] female medical students have completed HPV vaccination prophylaxis out of [6(13.63%)] who

have opted for it. Of the [6 (9.83%)] female nursing students, 4(6.55%) have complied to HPV vaccination.

Reasons for not taking HPV vaccination amongst the participants are shown as below in graph 2

Graph 2: Reasons for non compliance of HPV vaccination

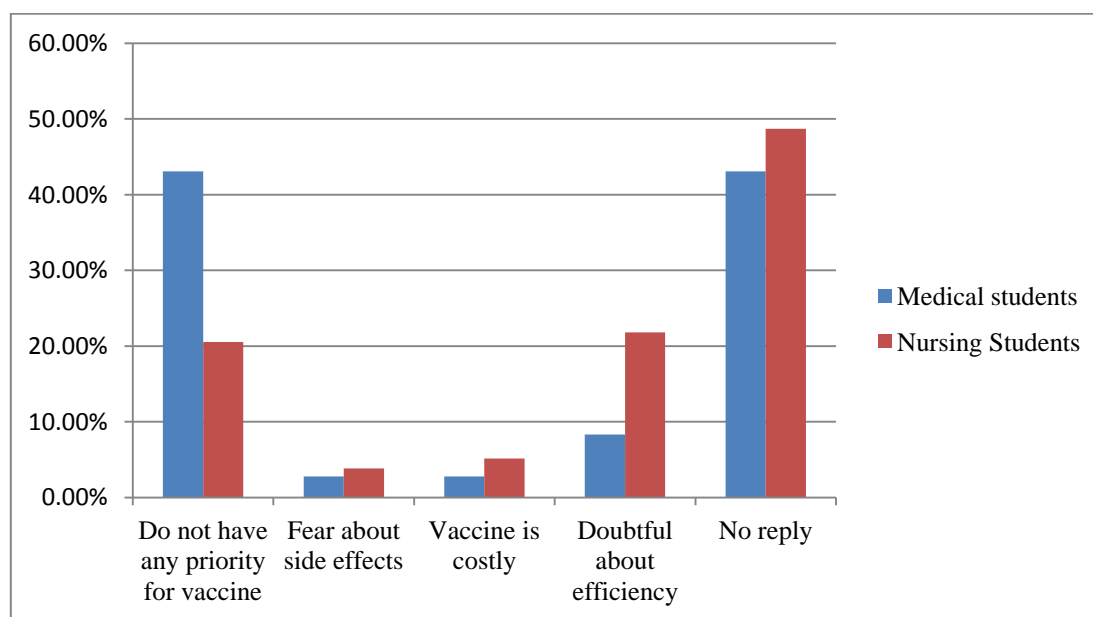


Table 1: Knowledge about prevention and control of cervix cancer amongst the participants

Variable	Medical Students (n=72)	Nursing students (n=78)	P value
Pathology of cervix cancer	52(72.22%)	61(78.20%)	0.395
Aware about presenting symptoms of cervix cancer	67(93.05%)	62(79.48%)	0.016
All risk factors of cervix cancer	35(48.61%)	51(65.38%)	0.037
Human Papiloma Virus(HPV) as a causative agent for cervix cancer	70(97.22%)	50(64.10%)	0.000
Most common types of HPV responsible for cervix cancer	67(93.05%)	26(33.33%)	0.000
Ability of HPV vaccine for prevention of cervix cancer	62(86.11%)	52(66.66%)	0.005
Awareness about HPV vaccine availability in India	54(75%)	35(44.87%)	0.000
Age for which HPV vaccine is recommended	4(5.55%)	10(18.87%)	0.019
Once infected with HPV, the vaccine will not work against cervix cancer	43(59.72%)	30(38.46%)	0.012
Availability of pap smear as a cervix screening test at institute level	54(75%)	51(65.38%)	0.199
Age for screening of cervix cancer	21(29.16%)	32(41.02%)	0.129
Necessity of cervix cancer in postmenopausal period	51(70.83%)	53(67.94%)	0.70
Cervix cancer if detected early is curable	57(79.16%)	58(74.35%)	0.486
Aware about treatment modalities of cervix cancer	47(65.27%)	38(48.71%)	0.040

Table 2: Attitude of the participants towards prevention and control of cervix cancer

Variable	Medical students (n=72)	Nursing students (n=78)	P values
HPV vaccine should be introduced in national health program	53(73.61%)	59(75.64%)	0.775
Need to vaccinate men against HPV	28(38.88%)	50(64.1%)	0.775
Once infected with HPV, vaccine is effective	43(59.72%)	30(38.46%)	0.032
Think that all women should undergo screening for cervix cancer	66(91.6%)	54(69.23%)	0.097
Need for screening of cervix cancer once vaccinated with HPV	60(83.33%)	53(67.94%)	0.022
Perceived risk of getting cervix cancer*	12(27.27%)	17(27.86%)	0.946
Need to undergo cervix cancer screening yourself* (female only)	32(72.72.%)	33(54.09%)	0.052
All women should undergo cervix cancer screening	66(91.66%)	54(52.56%)	0.000
Will recommend HPV to all family members	59(81.94%)	42(53.84%)	0.000

*sample size limited to 44 female undergraduate medical and 61 female nursing students.

Discussion

In our study more number of 71(98.61%) medical students perceived that cervix cancer was a disease of public health importance as compared to 41(52.56%) nursing students. Other studies conducted amongst nursing staff elsewhere in India also demonstrated awareness about of cervix cancer as a public health priority amongst 63.5%-70.22% of the participants.^{7,18}

Knowledge about all risk factors for cervix cancer was more in nursing students 51(65.81%) as compared to medical students 35(48.61%).

Another study done among medical and nursing students demonstrated significant difference of knowledge about four most important risk factors of cervix cancer.⁶

Awareness about all presenting symptoms of cervix cancer was higher in medical students as compared to nursing students. In other studies involving medical and nursing students conducted elsewhere knowledge about presenting symptoms of cervix cancer varied from 42% to 96.3%.^{5, 17}

In our study majority of the medical students [70(97.22%)] were aware about Human Papilloma

Virus as causative agent of cervix cancer as compared to nursing students [50(64.10%)]. Participants from a study conducted in a neighbouring country, 62% attributed cervix cancer to the viral infection. Of them, 61% were aware that Human Papilloma Virus is the causative agent of cervix carcinoma. (17) In another study conducted elsewhere in the world, infection with Human Papilloma Virus was perceived by 81% of medical and 42% of nursing students respectively as an etiology of cervix cancer.⁶

In our study, more number of medical students [62(86.11%)] as compared to nursing students [52(66.6%)] were aware that vaccine available HPV infection can prevent cervix cancer. A study conducted in a neighbouring country involving nursing students and interns only 37 out of 393 (9.4%) knew about HPV vaccine.¹⁷

Awareness about availability of cervical cancer vaccine in India was more in medical students [54(75%)] as compared to 35(44.87%) nursing students. In one more study, higher awareness about cervix cancer vaccine was reported in the medical students as compared to nursing students.⁶

Awareness about pap smear as cervix cancer screening method was 91.66% in medical students and 62.82% in nursing students. Awareness about colposcopy was 11.53% and 3.84% in the nursing students while awareness about the same in medical students was 1.38% and 3.84% respectively. In the study conducted elsewhere, 54% of interns and nurses were aware about the screening techniques for cervix cancer and out of them 75% knew it was pap smear.(23) In a study involving staff nurses, awareness about screening methods was highest for pap smear (80.7%) followed by colposcopy (15.8%), VIA (14.2%).¹⁸ Variables like recommended age group for HPV vaccination, effectiveness of HPV vaccination prior to the onset of sexual activity, age group for HPV vaccination, protection rate of HOV vaccine, availability of PAP smear at the institute level, screening of cervix cancer in the postmenopausal

age group and treatment modalities for cervix cancer were not explored in the similar literature referred, hence could not be compared.

In this study, majority of medical students [66(91.66%)] thought that it is important that all women should undergo screening for cervix cancer while 54(69.23%) nursing students thought so. In another study involving female health care providers in India revealed that 95.3% supported for cervical cancer screening.⁵

More number of medical students [59 (81.94%)] replied positively as compared to nursing students [42 (53.84%)] as far as recommendation of HPV vaccination for family members was considered. Another study revealed that 88% of medical and 92 % of nursing students who believed that HPV vaccine does prevent cervix cancer would recommend the same.⁶

Out of 44 female medical students, 12(27.27%) thought that they are at the risk of getting cervix cancer as compared to 17 out 61 (27.86%) female nursing students. In a study involving a mixed population of female doctors, nurses, counselors, 57.9% felt the same.⁵

Results of other variables from this study in terms of attitude and practices for primary and secondary prevention of cervix cancer could not be compared as these were not explored in details in the literature referred.

Recommendations

Results about knowledge, attitude and practices of both medical and paramedical indicate that they need to be further sensitized regarding cervix cancer prevention and control. Well sensitized health care providers remains the cornerstone of cancer prevention services, also they can be serve as a change agents for not only cervix cancer prevention activities in the resource scarce country like India.

Limitations

Due to feasibility constraints, the data from all medical and nursing students could not be collected. Further interventions to improve their

knowledge, attitude and practices could not be done due to time constraints.

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