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Cervical cancer, pHPV, paps mear, cervical cancer vaccine

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## Awareness of Cervical Cancer Screening and Prevention Among Medical Students

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### Abstract

To assess the awareness of cervical cancer screening and prevention among medical college students. In this crosssectional study, 100 students studying first year MBBS who were willing to participate in the study, after getting informed consent, were given google forms with questionnaires to assess their knowledge and awareness about cervical cancer, etiology, early signs and symptoms, screening methods and vaccination. There were 100 participants in the study, 64% being male and 36% being female. 81% were aware that cervical cancer is one of the commonest causes of cancer related deaths. Only 56% knew that HPV is the commonest cause of cervical cancer. 54% were aware of early signs and symptoms of cervical cancer. Only 42% were aware of screening methods for cervical cancer. 62% knew about cervical cancer vaccination. The results of our study demonstrate that further measures have to be taken to create awareness about cervical cancer screening methods and prevention among medical students.

## INTRODUCTION

Cervical cancer is one of the leading cause of cancer related deaths in developing countries. The incidence of cervical cancer varies widely among different countries. Cervical cancer is one of the preventable gynecological cancers. Human papilloma virus (HPV) especially the high-risk sub types HPV-16 and HPV-18 are responsible for approximately 70% of cervical cancer cases<sup>[1-3]</sup> Cervical cancer is preventable. It has a possibility of complete treatment if detected early<sup>[4]</sup>, as cervical cancer evolves slowly from detectable precancerous lesions to its metastatic stage<sup>[5]</sup>.

High prevalence of cervical cancer in many developing countries is due to ineffective screening programmes and lack of awareness. Pap smear is one of the easiest, simple and cost effective methods of cervical cancer screening. The inculcation of a regular screening uptake and routine check-up among women of reproductive age is the sure way of reducing the incidence of cervical cancer<sup>[5]</sup>. Pap smear has been 79% successful in reducing incidence of cervical cancer and 70% successful in reducing mortality caused by cervical cancer<sup>[6]</sup>. Cervical cancer vaccination also helps in prevention of cervical cancer

Hence, the prevention of cervical cancer critically depends on the knowledge and awareness about the etiology and risk factors and an awareness of the screening procedures, vaccination and treatment modalities.

## MATERIALS AND METHODS

In order to gain knowledge about awareness about cervical cancer screening and prevention among medical students, a comprehensive cross sectional study methodology was employed. Initially, a questionnaire comprising a diverse range of questions was developed.

Student cohort consisted of students studying in first year MBBS at Bharath medical college. Informed consent was taken from students who were willing to take part in the study, after explaining the study.

To facilitate data collection, the questionnaire was administered to participants via Google Forms. Questions related to etiology, risk factors, early warning signs, screening methods and vaccination were included. Each question had two options: know and don't know, which the participant had to choose. Participants were invited to complete the questionnaire ensuring single time response. Data was collected and entered into Google Sheets.

Statistical analysis of collected data was performed using SPSS version 23 software.

## RESULTS AND DISCUSSIONS

There was a significant level of engagement among medical students who participated in the study.

As shown in figures 1 and 2 among the surveyed students, 81% were aware that cervical cancer is one of the commonest causes of cancer related deaths. Only 56% knew that HPV is the

commonest cause of cervical cancer. Only 54% were aware about early signs and symptoms of cervical cancer. 42% had knowledge about cervical cancer screening methods. 62% were aware of vaccination for cervical cancer.

Worldwide, cervical cancer alone is responsible for >5% of cancer related deaths in women<sup>[7]</sup>. Death due to cervical cancer is highly preventable if detected early at pre cancerous state. Cervical cancer vaccination also helps in prevention of cervical cancer. The incidence of cervical cancer has decreased more than 50% because of widespread screening with cervical cytology<sup>[8]</sup>. Enthusiastic marketing of cervical cancer vaccine by the pharmaceutical companies has increased awareness about vaccine.

The study evaluates the awareness about cervical cancer and prevention among medical students. Creating awareness among medical students is of primary importance to create awareness among the public. In our study, though students were aware of cervical cancer as one of the leading causes of cancer related deaths, awareness about HPV and screening methods was less.

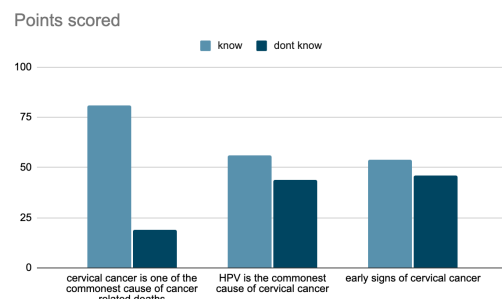


Fig1: Data analysis of responses from undergraduate medical students regarding knowledge about cervical cancer as one of the commonest cause of cancer related deaths, HPV as commonest cause of cervical cancer and about early signs of cervical cancer

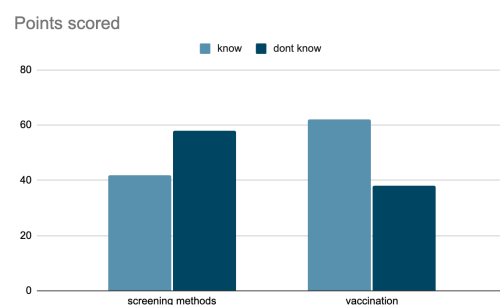


Fig. 2: Data analysis of responses regarding awareness about screening methods and vaccination for cervical cancer prevention

In a study on awareness about Human Papillomavirus and its Vaccine Among Medical Students, 96% implicated HPV as a causative agent for cervical cancer<sup>[9]</sup>, while only 56% in our study were aware of HPV as an important causative factor for cervical cancer

Most of the similar studies have shown the average score of awareness of people about cervical cancer and its monitoring methods, especially Pap smear as low<sup>[10,11]</sup> and only a few as high<sup>[12]</sup>. Awareness about cervical cancer screening methods has to be improved among medical students to increase the scope of screening strategies.

In the study by Durusoy, *et al.*, on HPV vaccine awareness and willingness of first-year students entering university in western Turkey revealed that the knowledge amongst the masses was markedly poor and only 11.6% of females intended to be vaccinated, while 62% of the students were aware of cervical cancer vaccine in our study<sup>[13]</sup>

According to obtained results knowledge and awareness about cervical cancer, early signs, screening methods and vaccination has to be improved among medical students and the public.

## CONCLUSION

Cervical cancer is highly preventable. Aggressive education programmes, group discussion and awareness sessions are required for medical students and also to the public to improve awareness about screening programmes and vaccination

## REFERENCES

1. WHO., 2024. Cervical cancer. World Health Organization, Geneva, Switzerland, <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer>.
2. CDC., 2020. About genital HPV infection. Centers for Disease Control and Prevention, Atlanta, Georgia, USA., [https://www.cdc.gov/sti/about/about-genital-hpv-infection.html?CDC\\_AAref\\_Val=https://www.cdc.gov/std/hpv/stdfact-hpv.htm](https://www.cdc.gov/sti/about/about-genital-hpv-infection.html?CDC_AAref_Val=https://www.cdc.gov/std/hpv/stdfact-hpv.htm).
3. Al-Darwish, A.A., A.F. Al-Naim, K.S. Al-Mulhim, N.K. Al-Otaibi, M.S. Morsi and A.M. Aleem, 2014. Knowledge about cervical cancer early warning signs and symptoms, risk factors and vaccination among students at a medical school in al-ahsa, kingdom of Saudi Arabia. Asian Pac. J. Cancer Prev., 15: 2529-2532.

4. Lintao, R.C.V., L.F.T. Cando, G.A.S. Perias, O.A.G. Tantengco, I.K.B. Tabios, C.L. Velayo and S.L.M. de Paz-Silava, 2022. Current status of human papillomavirus infection and cervical cancer in the Philippines. Front. Med., Vol. 9 .10.3389/fmed.2022.929062.
5. WHO., 2016. Screening for cervical cancer. World Health Organization, Geneva, Switzerland, <https://www.who.int/activities/screening-for-cervical-cancer>.
6. Emirates, U.A., 2004. The knowledge, attitude and practice of pap smear among local school teachers in the sharjah district. Middle East J. Family Med., Vol. 4.
7. Mansoor, I., 2001. Pattern of cervical smear cytology in the Western Region of Saudi Arabia. Internet J. Gynaecol. Obstetr., Vol. 1, No. 92.
8. Ranabhat, S.K., R. Shrestha and M. Tiwari, 2011. Analysis of abnormal epithelial lesions in cervical Pap smears in Mid-Western Nepal. J. Pathol. Nepal, 1: 30-33.
9. Goel, G., S. Mehta, S. Rajaram and N. Goel, 2013. Awareness about human papilloma virus and its vaccine among medical students. Indian J. Community Med., 38: 92-94.
10. Vrscaj, M.U., A. Vakselj, V. Strzinar, S. Bebar, M. Baskovic, A.P. Fras and A. Djuricic, 2008. Knowledge about and attitudes to pap smears, cervical cancer and human papillomavirus among women in Slovenia. Eur. J. Gynaecol. Oncol., 29: 148-153.
11. Nganwai, P., P. Trudadon, C. Inpa, B. Sangpetngam and M. Mekjarasnapa et al. 2008. Knowledge, attitudes and practices vis-a-vis cervical cancer among registered nurses at the Faculty of Medicine, Khon Kaen University, Thailand Asian Pac. J. Cancer Prev., 9: 15-18.
12. Mutyaba, T., F.A. Mmimo and E. Weiderpass, 2006. Knowledge, attitudes and practices on cervical cancer screening among the medical workers of Mulago hospital, Uganda. BMC Med. Educ., Vol. 6 .10.1186/1472-6920-6-13.
13. Durusoy, R., M. Yamazhan, M.I. Tasbakan, I. Ergin, M. Aysin, H. Pullukcu and T. Yamazhan, 2010. HPV vaccine awareness and willingness of first-year students entering university in Western Turkey. Asian Pac. J. Cancer Prev., 11: 1695-1701.