



Study of Knowledge, Attitude And Practices Regarding Cancer Cervix And Pap Test Among The Nursing Officers In A Tertiary Care Center

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Abstract

Introduction-In India, cervical cancer is one of the leading malignancies among women, with about 130,000 new cases and 74,000 deaths every year accounting for 30% of global cervical cancer mortality. Almost all cervical cancers are caused by human papilloma virus (HPV) HPV virus can be passed from one person to another during sexual contact. This cancer can be prevented because of the long pre-invasive period.

Aims and Objectives- To study the knowledge, attitude and practices among the female nursing officers in AIIMS Raipur, regarding cervical cancer and pap test.

Materials and methodology-All the female nursing officers of AIIMS Raipur who were willing for the study were interviewed through a set of KAP questionnaire to assess their knowledge, attitude and practices with regard to cancer cervix and its screening.

Results and conclusion: Our study clearly shows that knowledge of the nursing officers about cervical cancer is fairly good but there is still need of awareness about the screening options available. The attitude and practices of the participants regarding screening test is not satisfactory and needs a radical change.

Keywords: KAP questionnaire, cancer cervix, pap smear, HPV, screening test

Introduction

Cancer is an abnormal growth of cells that tends to proliferate in an uncontrolled way. In India, cervical cancer is one of the leading malignancies among women, with about 130,000 new cases and 74,000 deaths every year accounting for 30% of global cervical cancer mortality.¹

Almost all cervical cancers are caused by human papilloma virus (HPV) HPV virus can be passed from one person to another during sexual contact. There are many types of HPV. Some HPV types can cause malignant changes in a woman's cervix. These changes can lead to cervical cancer over time. Other types can cause genital or skin warts.² Of the 100 HPV types, 16 and 18 have been categorized as high-risk types for cervical cancer.³

As we know the etiology of this cancer, we can think of ways to prevent this cancer or at least to detect this cancer at an early stage. Primary prevention through vaccination against the prevalent carcinogenic HPV types, HPV-16 and HPV-18, is also possible but is significantly more expensive. This cancer can be prevented because of the long pre-invasive period and its prevention and early detection by screening tests can contribute to the achievement of the Millennium Development Goals.⁴ Cervical cytology often referred to as the Papanicolaou test (Pap test) is perhaps the most well known of available screening methods.⁵

To make the screening activities more effective and acceptable a multipronged approach is required which can increase the acceptability towards screening through activities like behavior change

communication exercises, sensitizing the people of the area, including men folk, increased participation in vaccination against types 16 and 18 HPV among adolescent girls.⁶

Not many studies are there to assess the knowledge, attitude, and practices of the nursing officers regarding carcinoma cervix which is the second most common cancer in the world which has effective screening tools for its early detection and management. This study will not only help us plan any awareness program in the future but also help in correcting any fallacies in conducting any social awareness campaign.

Aims and Objectives

To study the knowledge, attitude, and practices among the female nursing officers in AIIMS Raipur, regarding cervical cancer and pap test.

Materials and methodology-

The study was carried out in AIIMS Raipur. All the female nursing officers of AIIMS Raipur who were willing for the study were interviewed through a set of KAP questionnaires to assess their knowledge, attitude, and practices with regard to cancer cervix and its screening. All the medical doctors and those working in the department of obstetrics and gynecology were excluded from the study.

The questionnaire for the present study included carefully prepared questions to assess the level of knowledge about carcinoma cervix and its screening programs, their attitude towards these practices, and their practice when it comes to a pap test. The questionnaire included 9 demographic questions, 11 questions to assess the level of knowledge, 5 questions to assess the attitude and the practices of the married female nursing officers. All data collected, were recorded in Microsoft excel. Mean, Standard deviation will be calculated and tables will be used for data summarization. Statistical analysis was done by SPSS V 21.

Results:

In our study, there were 72 female nursing officers who agreed to participate in the KAP study to assess their knowledge, attitude, and practices about cancer cervix and its screening. The results are as follows-

Table 1 shows the socio-demographic data of the participating nursing officers. The maximum number

of participants fell into the age category of 20-29 years (69.44%). The mean age of participants was 26 years. 60 participants (83.33%) were graduates and 12 participants (16.66 %) were postgraduates by education. 61 of the participants were married (84.72 %), out of which 23 of the participants had one child(31.94%) and 17 participants had 2 children (23.61%). 21 participants (29.16%) had their first childbirth within the age interval of 26 – 30 interval, followed by 15 participants(20.83%) who had their first childbirth at 21 – 25 age interval.

Table 2 shows the knowledge of participants on cervical cancer, its symptoms, and screening options available for it. All the 72 participants (100%) had heard about cervical cancer. 68 participants (94.44%) knew that cervical cancer is preventable if detected early. 58 participants (80.55%) stated that cervical cancer is a curable disease whereas 14 participants (19.44%) stated that carcinoma of the cervix is not curable. When asked if cervical cancer could be detected before the onset of symptoms, 63 participants (87.5 %) thought cervical cancer could be detected before the onset of symptoms whereas 9 participants (12.5%) thought it couldn't be detected before the onset of symptoms. When asked about the manifestations of cervical cancer, 63 patients (87.5%) stated irregular menstrual bleeding, 56 participants (77.77%) stated bleeding after sexual intercourse, 56 participants (77.77%) stated blood-stained discharge from the vagina, 27 patients (37.5%) stated weight loss and 13 participants (18.05%) stated difficulty in passing urine as the manifestations of cervical cancer.

Of the total 72 participants when asked about the risk factors of cancer cervix, 69 participants (95.83%) stated HPV virus infection, 54 participants (75.00%) stated multiple sexual partners, 32 participants (44.44%) stated multiparity and 29 participants (37.66%) stated early onset of sexual activity to be the risk factor for cervical cancer. When asked about the screening test for cancer cervix, 67 participants (93.05%) stated pap smear as the screening test for cancer cervix and 2 participants (2.77%) stated HPV DNA testing as the screening tool for cancer cervix.64 participants (88.88%) knew about the PAP test and 8 participants (11.11%) had not heard about the PAP test. When asked about how frequent the PAP test should be done, 25 participants (34.72%) stated that the PAP test should be done 3 yearly, 15 participants (20.83%) stated PAP test to be done

yearly, 2 participants (2.77%) stated that PAP test should be done 5 yearly and 1 participant (1.38%) stated PAP test should be done 6 monthly.

Table 3 shows the attitude and practices of participants towards cancer cervix screening tests. In our study, we found that of the total 72 participants who were given the KAP questionnaire to assess their attitude towards screening programs for cancer cervix only 12 out of the 72 participants showed willingness for PAP smear testing, which accounts for 16.6%. Of the total 60 nursing officers (83.33%) who were not willing for the PAP test, 22 participants accounting for 36.66% stated that they were shy to take the test, 16 participants accounting for 26.66% were afraid that the PAP test would be painful and so were not willing to take the test, 14 participants accounting to 23.33% stated anxiety as a reason for not taking the test, 8 participants (13.33%) stated other reasons like religious reasons and family issues for not taking the test.

Out of the 72 participants only 6 participants, i.e. 8.33% had undergone the PAP test previously and only 1 participant had to follow up with the report and had a got repeat PAP smear test showing the follow rate of 16.66%. None of the participants had received vaccination for the HPV virus. All the participants felt that there is a need for conducting awareness programs on cervical malignancies.

Discussion:

Cervical cancer incidence and mortality have declined substantially in western countries following the introduction of screening programs. This study explored KAP (Knowledge Attitude and Practices) about cervical cancer and its screening among nursing officers of AIIMS, Raipur, Chhattisgarh, India. We observed that the level of education of participants was higher compared with previous studies done in India. The reason is that previous KAP-based Indian studies have been conducted on the general female population while we selected nursing officers as they form the backbone of the healthcare facility. If the awareness of cervical cancer of nursing staff increases then it will help us in increasing the awareness of society about cervical cancer and its screening programs.

In our study, we observed that all the participants had heard about cervical cancer and the majority of them

(94.44%) thought it was preventable and curable (80.55%). 87.5% of participants in our study knew that cancer cervix can be detected before the onset of symptoms and 93.05% knew that the PAP test is the screening test for cervical cancer. This is similar to the study conducted by Divya Khanna *et al* among community health workers.⁷ Pattupara *et al* reported from Uttarakhand that 93% had no knowledge about cancer cervix. But their study was done on the general population of rural areas in India.⁸

A study conducted by Jansirani Siddhartha *et al* among the general population showed that 44.5% of the women were aware of cervical cancer and only 18% were aware of screening. Lack of awareness about screening services, no symptoms, and fear of procedure was the reason given by our women for not undergoing screening, 6.5% had heard of HPV infection as a risk factor and 2.8% knew about HPV vaccination.⁹

In a review conducted by Bhavika Chawla *et al*, the knowledge regarding cervical cancer came out to be 75.14%. With regard to signs and symptoms of cervical cancer, 65.48% knew about intermenstrual bleeding, 63.19% knew about abnormal vaginal discharge, 62.09% knew about foul-smelling vaginal discharge, 60.02% knew about bleeding per vagina as a common symptom of cervical cancer. This is almost similar to the knowledge level seen in our study among nursing officers about cervical cancer.¹⁰

In our study we found that despite having adequate knowledge of signs and symptoms, and risk factors of cervical cancer, the practice toward screening is low, that is, only 8.33% of nursing staff have undergone screening tests. This low uptake rate is very similar to other studies conducted among healthcare workers.^{11,12,13,14} In a study conducted by Gupta R K *et al*, 91.56% had heard of cervical cancer and more than 80% of the respondents were aware that cervical cancer was preventable and about the availability of screening tests for the disease, more than three fourth were willing to utilize free screening for cancer cervix if offered, one-third of the women knew about the preventive vaccine for cervical cancer, only 5% of them had undertaken the HPV vaccination and only 16% of the respondents had undergone pap test screening.¹⁵

In our study, we found that even though 95.83% of participants knew that HPV virus infection is the risk factor for cervical cancer, none of them were vaccinated for HPV infection. In a study conducted by Murat Oz et al on awareness and knowledge among Turkish students about HPV infection and vaccination, 51 % percent of female and 33.5 % of male students had heard of HPV and 32.8 % and 18 % of them had heard of the HPV vaccine, respectively, only 1.5 % of female and 0.4 % of male students had been vaccinated against HPV. ¹⁶

In our study, 34.72% of participants felt that pap smear should be done 3 yearly and 20.83% felt that yearly pap test has to be done whereas a study conducted by Awodele et al showed that 54% (108) of the respondents knew that Pap smear should be done once in a year, while 11.5% (23), 2.5% (5) and 13.5% (27) felt that it should be done once in 2 years, 3 years and lifetime, respectively. ¹⁷

Our study clearly shows that knowledge of the nursing officers about cervical cancer is fairly good but there is still a need for awareness about the screening options available. The attitude and practices of the participants regarding the screening test are not satisfactory and need a change.

Conclusion:

Healthcare workers especially nursing officers act as primary care providers and the backbone of society's health. It shows us the importance of the need for awareness programs to motivate them for undergoing screening tests for cervical cancer so that they can motivate the general population to do the same and bring about a change in society.

References:

1. Patra S, Upadhyay M, Chhabra P. Awareness of cervical cancer and willingness to participate in screening program: Public health policy implications. *J Can Res Ther* 2017;13:318-23.
2. Division of Cancer Prevention and Control, Centers for Disease Control and Prevention, 2017
3. International Agency for research on cancer IARC Monographs on Evaluation of Carcinogenic Risks to Humans, Human Papilloma Virus. 2007;90
4. Tasneem F, Shanbhag V. KAP study in the married women coming to the outpatient department in a tertiary care centre on PAP smear. *Indian J Obstet Gynecol Res* 2019;6(1):15-19.
5. Moyer VA; U.S. Preventive Services Task Force. Screening for cervical cancer: U.S. Preventive services task force recommendation statement. *Ann Intern Med* 2012;156:880-91, W312.
6. Sreedevi A, Javed R, and Dinesh A. Epidemiology of cervical cancer with special focus on India. *Int J Womens Health*. 2015;7:405–14.
7. Khanna D, Khargekar N, Budukh A. Knowledge, attitude, and practice about cervical cancer and its screening among community healthcare workers of Varanasi district, Uttar Pradesh, India. *J Family Med Prim Care*. 2019;8(5):1715-1719. doi:10.4103/jfmpc.jfmpc_143_19
8. Pattupara AJ, Dhiman N, Singh A, Chaturvedi J. Knowledge, Attitude and Practice Study on Screening of Cervical Cancer Among Women Visiting A Tertiary Care Center. *SOJ GynecolObstetWomens Health*. 2016;2(2): 3.
9. Siddharthar J, Rajkumar B, Deivasigamani K. Knowledge, Awareness and Prevention of Cervical Cancer among Women Attending a Tertiary Care Hospital in Puducherry, India. *J Clin Diagn Res*. 2014;8(6):OC01-OC3. doi:10.7860/JCDR/2014/8115.4422
10. Chawla B, Taneja N, Awasthi AA, Kaur KN, Janardhanan R. Knowledge, attitude, and practice on screening toward cervical cancer among health professionals in India-A review. *Womens Health (Lond)*. 2021;17:17455065211017066. doi:10.1177/17455065211017066
11. Mutyaba T, Mmiro FA, Weiderpass E. Knowledge, attitudes and practices on cervical cancer screening among the medical workers of Mulago Hospital, Uganda. *BMC Med Educ* 2006; 6(1): 13. [PMC free article] [PubMed] [Google Scholar]
12. Udigwe GO. Knowledge, attitude and practice of cervical cancer screening (pap smear) among female nurses in Nnewi, South Eastern Nigeria.

Niger J Clin Pract 2006; 9(1): 40–43. [PubMed] [Google Scholar]

13. Arulogun OS, Maxwell OO. Perception and utilization of cervical cancer screening services among female nurses in University College Hospital, Ibadan, Nigeria. *Pan Afr Med J* 2012; 11: 69. [PMC free article] [PubMed] [Google Scholar]

14. Gharoro EP, Ikeanyi EN. An appraisal of the level of awareness and utilization of the Pap smear as a cervical cancer screening test among female health workers in a tertiary health institution. *Int J Gynecol Cancer* 2006; 16(3): 1063–1068. [PubMed] [Google Scholar]

15. Gupta RK, Singh P, Langer B, Kumari R, Sharma P, Gupta RK. Cervical cancer: a hospital based KAP study among women aged 18 years and above in Northern India. *Int J Community Med Public Health* 2019;6:1628-33.

16. Oz, M., Cetinkaya, N., Apaydin, A. et al. Awareness and Knowledge Levels of Turkish College Students about Human Papilloma Virus Infection and Vaccine Acceptance. *J Canc Educ* 33, 260–268 (2018). <https://doi.org/10.1007/s13187-016-1116-0>

17. Awodele O, Adeyomoye AA, Awodele DF, et al.. A study on cervical cancer screening amongst nurses in Lagos University Teaching Hospital, Lagos, Nigeria. *J Cancer Educ* 2011; 26(3): 497–504. [PMC free article] [PubMed] [Google Scholar]

Tables:

Table 1 : Socio-demographic profile of the respondents

Socio-demographic variables	Variables	Number	Frequency
Age	20-29	50	69.44 %
	30-39	22	30.55 %
	40-49		
Marital status	Unmarried	11	15.27 %
	Married	61	84.72 %
Number of children	1	23	31.94 %
	2	17	23.61 %
	3	00	00
Education	Graduate	60	83.33 %
	Postgraduate	12	16.66 %

Age of marriage	18-20	6	8.33 %
	21-25	21	29.16 %
	26-30	27	37.50 %
	31-35	07	9.72 %
Age at first child birth	18-20	1	1.3 %
	21-25	15	20.83 %
	26-30	21	29.16 %
	31-35	3	4.16 %
Contraception used	Natural method (Calender method)	21	29.16 %
	Barrier method(Condoms)	13	18.05 %
	OC pills	6	8.33 %
	IUCD	1	1.38 %
	None	20	27.77 %

Table 2: knowledge of participants on cervical cancer

Question	Response	Number	Frequency
heard of cervical cancer	Yes	72	100 %
	No	00	00
Can cervical cancer	Yes	68	94.44 %

be prevented	No	04	5.55 %
ca cervix curable?	Yes	58	80.55 %
	No	14	19.44 %
Can ca cx be detected before symptoms	Yes	63	87.5 %
	No	09	12.5 %
Manifestation of ca cervix 5/5	Irregular menstrual bleeding	63	87.5 %
	bleeding after sexual activity	56	77.77 %
	weight loss	27	37.5 %
	Difficulty in passing urine	13	18.05 %
	Blood stained discharge from vagina	56	77.77 %
Risk factors for ca cx 4/4	Early start of sexual activity,	29	37.66%
	Multiple sexual partners,	54	75.00 %
	Multiparity	32	44.44 %
	HPV virus infection	69	95.83 %
screening test for ca cx	Pap smear	67	93.05 %
	HPV DNA	2	2.77 %
whom to screen for ca cx 3/3	• Old women >60 years,	18	25 %
	• Young women 20-50	62	86.11 %
	• Adolescent girls 12-19		

	years)	4	5.55 %
Aware of PAP test	Yes	64	88.88 %
	No	08	11.11 %
How frequently is PAP test done?	6mths	1	1.38 %
	1 year	15	20.83 %
	3 year	25	34.72 %
	5 years	2	2.77 %

Table 3: Attitudes and practices of the respondents towards cervical cancer

Question	Response	Number	Frequency (%)
PAP test willingness	Yes	12	16.66 %
	No	60	83.33 %
Reason for not willing for PAP test	Pain	16	26.66 %
	Anxiety	14	23.33 %
	Shy	22	36.66 %
	Other	8	13.33 %
PAP test done in past	Yes	6	8.33 %
	No	66	91.66 %
PAP test follow up done	Yes	1 out of 6	16.66 %
	No	5 out of 6	83.33 %
repeat PAP smear done	Yes	1	16.66 %

	No	5	83.33 %
Received HPV vaccine	Yes	00	00
	No	72	100 %
Need for ca cervix awareness	Yes	72	100 %
	No	00	00