

# KNOWLEDGE, ATTITUDE & PRACTICES ABOUT CERVICAL CANCER AND SCREENING AMONG NURSING STAFF IN A TEACHING HOSPITAL

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## ABSTRACT

**Background:** Estimated cervical cancer screening practice is very low and load of cases very high in India. The studies document that nurses play a crucial role of enlightening community about need and availability of Pap smear. It is important therefore to understand the perceptions and practices of nurses about cervical cancer and screening.

**Aims & Objective:** To evaluate the Knowledge Attitude & Practices (KAP) of the Nurses on cervical cancer and screening.

**Material and Methods:** A self-administered, structured, open ended and pretested questionnaire covering the general characteristics, KAP about cervical cancer and screening (Pap smear) was used to collect responses of nurses in a Teaching Hospital at Surat. The information thus collected was entered and analysed in Epi Info and Microsoft Excel software.

**Results:** Responses from 200 female nurses were recorded and analysed. Majority (88%) were married; most common age of marriage being 21 to 25 years. Nurses linked multiple sexual partners (61%), sex at an early age (44%), Human Papilloma Virus infection (38.6%) and heredity (31%) to cervical cancer. Approximately 70% believed that Ca cervix is preventable, detectable and curable if detected early. Pap smear was recognized as major screening technique by 74% nurses. Major (84%) source of information was health professional. Eighty percent nurses never took cervical screening while 87.5% did not recommend it to others.

**Conclusion:** For successful implementation of cervical screening program, the nurses should be targeted first by education and sensitization so that they can play pivotal role in developing the awareness, confidence and compliance of women.

**KEY-WORDS:** Health Knowledge Attitude & Practices; Uterine Cervical Neoplasms; Nurses

## Introduction

Cancer of the cervix uteri is the second most common cancer among women worldwide, with an estimated 530,232 new cases and 275,008 deaths.<sup>[1]</sup> About 86% of the cases occur in developing countries, representing 13% of female cancers. India holds one-fourth of global burden of cancer of cervix with estimates of 134420 women developing cervical cancer every year and 72825 die from the disease.<sup>[2]</sup> In India it is the second most frequent cancer with an age-standardised incidence rate of 27 per lakh, while globally the ages standardised incidence rate of cervical cancer is 15.2 per lakh women.<sup>[1,2]</sup>

Early diagnosis and prompt treatment of cancer and precancerous lesions provides the best possible protection against cervical cancer. Well

organised programmes to detect and treat precancerous abnormalities and the early stages of cancer prevent up to 80% of cervical cancer in developed countries. However, effective cytological screening programs for detecting carcinoma of cervix have been difficult to implement in our country.<sup>[3]</sup>

Estimated coverage of cervical cancer screening practices is around 2.6% only among Indian women which is quite low as compared to developed countries where 82% of women in reproductive age group had a recent pap smear in the last 3 years.<sup>[2,4]</sup> Many factors may affect the uptake of cervical screening including the role of service providers. Studies document that nurses play a major role in enlightening the public on the availability and need for cervical cancer screening services. Their attitude is often crucial in gaining women's confidence as they are the person who

helps to conduct tests. It is therefore relevant to appraise the perception and utilization of cervical cancer screening services by nurses.<sup>[5,6]</sup>

We planned this study to know actual attitudes and practices of women who work as Nurses in a Tertiary care centre which is also a Medical College attached Hospital. We hoped to recommend interventions at the level of Nursing Personnel involvement in the implementation of Cervical screening program.

## Materials and Methods

**Study Design:** This was a cross-sectional study.

**Study Settings and Duration:** The study was carried out in a teaching hospital which is also a tertiary care institute at Surat from July to October 2012.

**Study Sample and Participants:** According to the guidelines women should begin having cervical cytology tests and regular pelvic examinations at age 21 or within three years of the first time they have sexual intercourse-whichever happens first.<sup>[7]</sup> A sample of 200 nurses who were eligible for cervical screening according to this criterion was selected randomly out of the total 445 nurses employed in the hospital.

**Ethical Clearance:** The permission from the institutional ethical committee was taken before starting the study. Informed consent was taken from all study participants.

**Study Tool:** A self-administered, structured, open ended and pretested questionnaire comprising of questions on the general characteristics, awareness, perceptions and actual practices of nursing personnel was used to gather information about cervical screening.

**Study Method:** The study participants were explained about the study in detail and were invited to take part in the study. They were asked about the time convenient to them and accordingly arrangement was made by authors to record their responses.

The objectives and background of study were explained before administering the questionnaire.

The participants were required to mark their responses against the appropriate answers on the questionnaire sheet. The identification digits were used in place of names of women to maintain confidentiality. The response sheets were filled, collected and checked for completeness under supervision by authors.

The data was entered and analysed with the help of Epi Info and Microsoft Excel software. Frequency distributions and proportions were calculated to show the KAP of nurses about cervical cancer and screening.

## Results

Responses of 200 hundred female nurses were recorded and analysed. Majority women (88%) were married. Hindu religion was followed by maximum number (72%) of women. Age at marriage could be seen only for 183 (91.5%) married women. Similarly, age at first intercourse was documented by 181 (98.5%) married women only (Table 1).

**Table-1: Distribution of Socio-Demographic Variables among Nurses**

Variables	N	%	
<b>Marital Status</b>	Married	176	88
	Unmarried	17	8.5
	Divorced	7	3.5
	Total	200	100
<b>Age at Marriage in Years</b>	15-20	9	4.5
	21-25	104	52.0
	26-30	56	28.0
	31-35	14	7
	Total *	183	100
<b>Age at First Intercourse in Years (N=181)</b>	15-20	13	6.5
	21-25	105	52.5
	26-30	52	26
	31-35	11	5.5
	Total **	181	100
<b>Religion</b>	Hindu	144	72
	Muslim	16	8
	Christian	40	20
	Total	200	100

\*Out of 200 nurses, 183 were married.

\*\*181 nurses gave age of first intercourse

Nurses gave multiple responses on questions about knowledge on cervical cancer which are shown in table 2, hence total responses were more than 200. It is evident from table 2 that majority workers knew about risk factors and signs for cervical cancer. Similar trend was also

seen regarding knowledge about prevention aspect of cervical cancer. Pap smear was recognized as major screening technique by 74% nurses as shown in Table 3; while table 4 depicts knowledge about Pap smear among nurses.

**Table-2: Awareness about Cervical Cancer**

Knowledge about Risk Factors of Cervical Cancer* (N=200)	Number Responded Yes	%
Having multiple sexual partner	123	61.5
Having sex at early age	88	44.0
Human Papilloma Virus infection	77	38.6
Family history of cervical cancer	62	31.0
Use of oral contraceptive	24	12.0
Excess alcohol	9	8.5
Smoking	7	3.5
<b>Signs of Cervical Cancer* (N=200)</b>		
Foul-smelling vaginal discharge (FSVD)	147	73.5
Postmenopausal bleeding (PMB)	91	45.5
Postcoital bleeding	89	44.5
Menorrhagia	64	32.0
Dysmenorrhoea	44	22.0
Do not know	3	1.5
<b>Prevention of Cervical Cancer (N=200)</b>		
It is preventable	138	69
It is possible to detect it	147	73.5
Early detection increases survival	144	72

\* Total 200 nurses gave multiple responses about risk factors and signs of cervical cancer

**Table-3: Screening Techniques for Cervical Cancer**

Knowledge about Screening Techniques of Cervical Cancer (N=200)	Number Responded Yes	%
Pap smear	105	52.5
Colposcopy	38	19
Pap smear, testing for HPV and VIA	24	12
Pap smear and testing for HPV	12	6
Visual inspection with acetic acid (VIA)	9	4.5
Pap smear and VIA	7	3.5
Testing for HPV	5	2.5

Health professional were major sources of information about Pap smear to nurses (table 5). Table 6 shows that 159 (79.5%) nurses never took cervical screening while 175 (87.5%) did not recommend it to others due to various reasons.

## Discussion

Cancer of cervix is a preventable disease and a key aspect of its prevention is detection of its premalignant form by screening at an early age.<sup>[8]</sup> The present study evaluates the perceptions and utilization of cervical cancer screening among nurses.

**Table-4: Knowledge about Pap Smear**

Knowledge about Pap Smear (N=200)	Number	%
<b>Uses of Pap smear</b>		
Detection of precancerous state of cervical cancer	122	61
Detection of sexually transmitted diseases	40	20
Prevention of cervical cancer	19	7.5
Detection of Human Papillomavirus infection	9	4.5
Cure of cervical cancer	7	3.5
Do not know	3	1.5
<b>Meaning of Pap Smear</b>		
Cervical cancer that is about to start	165	82.5
Full-blown cancer of cervix	31	15.5
Cancer of the breast	2	1
I do not know	2	1
<b>How often should Pap smear be done</b>		
At least once in a year	135	67.5
At least once in 3 years	28	14
At least once in 2 years	17	8.5
At least once in a lifetime	15	7.5
Do not know	5	2.5
<b>Who should have Pap smear done</b>		
Women that are 18 years and above	126	63
Women above 65 years of age	30	15
Women of all age	25	12.5
Women that are still giving birth	13	6.5
Do not know	6	3

**Table-5: Distribution according to Source of Information about Cervical Screening among Nurses**

Sources of Information about Pap Smear (N=200)	Number*	%
Health professionals	168	84
Print media	67	33.5
Electronic media	59	29.5
School seminars	52	26
Friends and relatives	21	10.5
Journals	7	3.5

\* Nurses gave multiple responses

**Table-6: Reasons for not doing Pap Smear and for not Recommending it to Others**

Reasons for not doing Pap smear* (N=157)	Number	%
Not thought about it	45	28.7
No time	28	17.8
Still young for it	23	14.7
Do not know where the test is done	19	12.1
Not aware of any test	17	10.8
No money/ It is costly	12	7.6
Others	13	8.3
Total	157	100
<b>Reasons for not recommending Pap smear to others**</b>		
No reason	68	38.9
< 20 yrs are safe from Cancer cervix	60	34.3
Pap smear is painful	20	11.4
Pap smear test could be dangerous and risky	12	6.8
Others	15	8.6
Total	175	100

\*Nurses who didn't get Pap smear done for themselves were taken

\*\* Nurses who did not recommend Pap smear to others

\*\* Nurses who did not recommend Pap smear to other women were taken.

## Socio-Demographic Variables

The current study shows, majority of women belong to the age between 21 and 30 years when they were married, which is similar to studies done elsewhere. Maximum number of nurses were already married (82%) in current study. National Family Health Survey-3 gives us data on marital status of Indian women and reports that 74.8% are married and 20% unmarried. Our study depicts more married women; perhaps because the age of respondents is more than 20 years while in NFHS-3 the age of women is between 15-44 years and more women get married in our country before the age of 20 years.<sup>[9]</sup>

In current study, 68% women are Hindu while 17.5% are Christian while NFHS-3 shows that 82% Indian population is Hindu.<sup>[9]</sup> This shows that more Christian women prefer the Nursing profession.

## Knowledge about Cervical Cancer

Nurses linked multiple sexual partners (61.5%), sex at an early age (44%), Human Papilloma Virus infection (38.6%) and heredity (31%) as major risk factors for cervical cancer. In response to signs of cervical cancer, women identified foul smelling discharge (73.5%), post coital bleeding (45%) and post-menopausal bleeding (44.5%) as most frequent signs. Approximately 70% nurses believed that Ca cervix is preventable, detectable at an early stage and curable if detected early (Table 2).

The findings of this study about knowledge of nurses regarding cervical cancer are consistent with reports of Awodele et al.<sup>[10]</sup> Other studies done by different authors further strengthen the fact that though nurses identify certain aspects of cervical cancer, their knowledge is not complete. Being nursing personnel, a better knowledge of preventable diseases like cervical cancer is expected from them.<sup>[11-14]</sup>

## Awareness about Cervical Screening

In the current study, 74% women knew Pap smear is a cervical screening tool; 82.5% were aware that Pap smear means Ca Cervix about to

start and 61% knew the use of Pap to detect early precancerous lesions. They believed that Pap smear should be done once in one, two, three years or lifetime by 67.5%, 8.5%, 14% and 7.5% respectively. Sixty three percent nurses felt the need of doing Pap in women above 18 years. (Table 3, 4)

The awareness about Pap smear in our study is similar to the findings of Mutyaba et al and Orantaphan et al.<sup>[11,13]</sup> The study by Lagos et al shows somewhat higher knowledge of their study participants in these variables which could be due to the fact that the age of participants in their study is more.<sup>[10]</sup>

The nurses got their information about cervical cancer and Pap smear from multiple sources like Health professional (84%), print media (33.5%), electronic media (29.5%), school seminars (26%), friends and relatives (10.5%) and journals (3.5%) in our study (Table 5). Study on school teachers in Sharjah also documents similar findings where gynaecologist are the major source of information.<sup>[14]</sup> Lagos et al found journals, electronic media and health professionals were source of information in equal magnitudes.<sup>[10]</sup>

The Nurses in our study show understanding about Pap smear as they are health providers themselves and need to have latest and complete information about cervical cancer and screening.

## Utilization of Cervical Cancer Screening

Our study documents that 70% nurses never underwent pap smear; most common reasons being not thought about it (28.6%) or no time for it (17.8%). Similar findings of surprisingly low uptake of cervical screening are shared by authors who have conducted studies on utilization of cervical screening services by health workers.<sup>[10,12-13,15]</sup>

Among 87% nurses who did not recommend Pap smear to other women, 38.9% gave no response while 35% believed that women less than 20 years are safe. Some, 11.4% women thought it is a painful procedure and 6.9% believed it is risky. Other studies report the reasons being embarrassment, painful, risky and fear.<sup>[10,15]</sup>

The present study brings to notice the abysmal state of low uptake of cervical screening services among nurses. Thus the evidence of gap in cervical screening shown in similar studies among health workers is further strengthened in present study.

## Conclusion

The present study concludes that there is satisfactory knowledge among nurses about cervical cancer and screening but uptake of screening services for cervical cancer is minimal.

## Recommendations

For successful implementation of cervical screening program in India, the pivotal role played by health workers should be kept in mind and they should be targeted first. The knowledge about cervical cancer and screening is already good among nurses. Therefore, need of the hour is brief training session or sensitisation of nurses so that they can play the role of enlightening the community about the availability and need of regular cervical screening.

Emphasis is required to develop Nurses and Medical workers as a cadre who makes women aware, comfortable and confident about cervical screening.

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