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Original Research Article

Knowledge, attitude and practices about cervical cancer screening among nursing staff in rural tertiary care center

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ABSTRACT

Background: Cervical cancer is the second most common cancer among women worldwide. The knowledge and attitude of nursing personnel towards cervical cancer screening can grossly influence the community. As the doctor to patient ratio is low in India, staff nurses if trained can act both as health educators and service providers. Objectives of the study were to determine the baseline information about the knowledge of cervical cancer and explore attitude and practice of Pap smear screening among staff nurses.

Methods: In this cross-sectional study sample of 100 nurses was selected randomly out of the total 445 nurses employed in the hospital at a rural tertiary care centre from August 2016 to October 2016. 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.

Results: In this study, 82% knew that Pap smear can detect cancer. About 48% knew that it can present as post-menopausal bleeding and 32% of the respondents knew that HPV is a risk factor for cancer cervix, but only 30% knew about HPV vaccine and only 35% have ever been screened.

Conclusions: The study showed that, knowledge about cancer cervix, screening and practice of Pap smear is low among nursing staff. There is an urgent need for integration of cervical cancer prevention issues in the nurses existing training curriculum.

Keywords: Attitude, Cervical cancer, Knowledge, Screening

INTRODUCTION

Worldwide, cervical cancer is the second most common (12%) cancer in women, however, in developing countries; it is the most common cancer among women.¹ According to the International Agency for Research on Cancer (IARC), and India has the highest number of cervical cancer cases in the world. There are an estimated 1,32,000 new cases and 74,000 deaths each year which occur due to cervical cancer in India.² India bears about one fifth of the world's burden of cervical cancer, and >100,000 new cases are detected every year in India,

which causes 20% of all female deaths in India.^{3,4} Cervical cancer and its mortality have been proven preventable by various screening and treatment strategies aimed at sexually active women.

The key to reducing cervical cancer morbidity and mortality is early detection and treatment of cervical precancerous lesions among sexually active women on universal basis with available protocols for screening. Precancerous lesions are detectable for 10 years or more before cervical cancer develops. Among all malignant tumours, cervical cancer is the one that can be most

effectively controlled by organized screening programs.⁵ An organized screening program can reduce incidence and mortality by 80% as shown in developed countries.⁶ Pap smear is one of the modern success stories in the field of preventive medicine which detects cervical cancer in its early stage. In 1943, Dr George Papanicolaou introduced this technique.⁷ Other methods of screening technique are colposcopy, visual inspection with acetic acid (VIA), visual inspection with lugols iodine (VILI), and Human Papilloma Virus (HPV) DNA testing.⁸⁻¹⁰

In India also, both early detection and screening remains a major area of concern coupled with poor literacy and low level of awareness amongst Indian women. As the doctor to patient ratio is low in India, thus if staff nurses trained can act both as health educators and service providers. Staff nurses are the personnel who can help in spreading awareness regarding this problem in the target population. To have a successful cancer control program, nursing staff must be aware of facts about cervical cancer and screening tests themselves. With this background the present study was conducted to assess the level of knowledge and attitude regarding cervical cancer screening among nursing staff.

METHODS

This study was descriptive cross-sectional study which has been conducted in tertiary care rural institute of Uttar Pradesh i.e., Uttar Pradesh University of Medical Sciences (UPUMS), Saifai from August 2016 to October 2016. A sample of 100 nurses was selected randomly out of the total 445 nurses employed in the hospital at that time.

Inclusion criterion

- The staff nurses who agreed to participate and gave consent.

Exclusion criterion

- Staff nurses who were not willing to participate in the study.

The staff nurses who agreed to participate were given a consent form along with a predesigned, pretested, self-administered multiple response questionnaires with open ended questions. With the help of a predesigned and pretested questionnaire, information was collected regarding demographic profile, knowledge about cervical cancer screening and attitude towards screening techniques among the nursing staff of hospital.

The participants were required to mark their responses against the appropriate answers on the questionnaire sheet. The anonymity and confidentiality of the participants were taken care of and the collected data were maintained. The obtained data were entered and

analysed by using statistical package for social sciences (SPSS) software version 21.

RESULTS

Among the respondents, the age group of 26 to 30 years formed the largest with 50% of them belonging to this age group and 60% of the respondents were from 20 to 25 yr. of age at first time sexual intercourse. 88% of the participants were married and about 50% of the participants had 2 children (Table 1).

Table 1: Demographic profile.

Demographic profile	n = 100 (%)
Age	
20-25 years	26 (26%)
26-30 years	50 (50%)
31-35 years	20 (20%)
36-40 years	4 (4%)
Age at first sexual intercourse	
<20 years	6 (6.8%)
20-25 years	60 (68.2%)
26-30 years	22 (25%)
Marital status	
Married	88%
Unmarried	22%
Religion	
Hindu	74%
Muslim	10%
Christian	16%

In this study 94% knew that cancer cervix is preventable and 82% knew that Pap smear can detect cancer, whereas only 32% knew that cervical cancer can be detected even before symptoms appear. 52 % were aware that Pap smear is used as screening modality. Very few participants 12% were aware of VIA and VILI (Table 2).

Table 2: Knowledge regarding risk factors of cervical cancer.

Questions related to knowledge	Responded yes %
HPV infection	32
HPV vaccination for prevention	30
Sexual intercourse at early age	18
Smoking	24
More than one sexual partner	36
Multiparity	42
Family history of cervical cancer	30

Only 18% knew that the cancer cervix can present without any symptoms. About 48% knew that it can present as post-menopausal bleeding and 42% were aware that it can present as abnormal uterine bleeding, but only 44% knew that it can even present as post coital bleeding. 50% of the respondents stated that it can present with foul smelling discharge (Table 3).

The risk factors like starting sex at an early age, having many sexual partners and multi parity were known to 30 to 40% of the respondents. 32% of the respondents knew that HPV is a risk factor for cancer cervix, but only 30% knew about HPV vaccine (Table 4).

Table 3: Knowledge regarding symptoms of cervical cancer.

Knowledge regarding symptoms of cervical cancer	Responded as yes %
Don't know	6
No symptoms	18
Vaginal discharge	50
Post coital bleeding	44
Post-menopausal bleeding	48
Abnormal uterine bleeding	42
Abdominal pain	46

Table 4: Knowledge related to cervical cancer screening.

Knowledge related to cervical cancer screening	Responded as yes %
Is cervical cancer preventable	94
Cervical cancer can be detected even before symptoms appear	32
Have you ever heard about pap smear	82
Pap smear can be used as:	
Screening modality	52 (63.4%)
Screening and treatment	14 (17.1%)
Don't know	16 (19.5%)
Aware of VIA or VILI	12

About 46% participants knew that screening should begin at 21 years or within 3 years of starting of sexual activity, whichever is earlier. About 64% of the participants thought that every woman is to be screened after 30 years of age, whereas overall 83.8% of the respondents agreed that all married women should be screened for cancer cervix at least once in a lifetime. Only 20% knew that Pap smear should be done on yearly basis (Table 5).

Table 5: Knowledge related to cervical cancer screening age and duration.

Screening should be started at	Responded as yes %
More than 21 years or within 3 years of starting sexual activity	46
Age>30 years	64
Age>40 years	20
How often do you think pap test to be repeated	
No idea	42
6 monthly	8
1 yearly	20
3 yearly	12

The attitudes about Pap smear screening showed that about 64% of the staff nurses thought that Pap smear testing is a doctor's procedure. About 52% respondents stated that they should undergo cervical screening, but only 35% have ever been screened (Table 6).

Table 6: Attitude towards cervical screening.

Questions related to attitude	Responded as yes %
Do you think that Pap smear testing is a doctor's procedure	64
Do you think you should undergo cervical screening	52
Do you think all women should undergo cervical screening	56
Have you ever been screened	35

Regarding practice of Pap smear screening, only 46% ever recommended any women to undergo screening for cervical cancer. Out of 65% non-screened respondents, about 44 respondents stated that they did not get Pap smear because they had no symptom, while 15 stated that they feel shy to get screened. (Table 7).

Table 7: Practice of Pap smear among nursing staff.

Pattern of utilization of cervical screening	Responded as yes %
Have you ever recommended any women to get cervical cancer screening done	46
Have you undergone cervical screening	35
Cause of not getting yourself screened	
No knowledge	18
No symptoms	44
No time	21
Embarrassment	15
Not advised	23

DISCUSSION

In this study age group of 26 to 30 years formed the largest with 50% of them belonging to this age group, this is similar to Bhatija GV et al.¹¹ In present study 82 % of respondents knew that Pap smear can detect cancer cervix, which is comparable to the study by Shah V et al where 88.4% knew and 83% of respondents knew in a study by Mutyaba et al.^{12,13} About 18% of the respondents agreed that cancer cervix can present without any symptom, whereas only 13.3% were aware about it in a study by Shashank et al.¹⁴ About 48% in present study knew that cancer cervix can present as post-menopausal bleeding or irregular menstrual bleeding, which is less to study by Shashank et al where this fact was known to 69%.¹⁴ About 44% of the respondents agreed that cancer cervix can present as post coital vaginal bleeding, which is comparable to 46% in a study by Urasa et al.¹⁵

The analysis of risk factors, revealed that starting sex at early age, having many sexual partners and multi parity known to 30-40% of the respondents, which is less in comparison to 70% in the study by V Shah et al.¹² 32% of the respondents in present study, knew that HPV infection is a risk factor for carcinoma cervix, whereas this awareness was noted in 54.1% in the study by Singh E et al.¹⁶

When enquired in to screening practices, 46% in present study knew that it should begin at 21 years or 3 years within starting of sexual activity, whichever is earlier, which is comparable to 54.1% in the study by Singh E et al.¹⁶

About 64 % thought that every woman to be screened after 30 years of age in present study, whereas only to 55.5% have agreed for the same in the study by Urasa et al.¹⁵ Above 64% of the respondents in present study, thought that Pap test is a doctor's procedure which is comparable to 71% in the study by Shashank et al.¹⁴

When authors enquired in to practices like performing vaginal examination, 46% of the respondents agreed to have practised, whereas only 53% practised in the study by Singh E et al.¹⁶ In present study about 35% of the staff nurses had themselves undergone Pap testing, whereas 19% in the study by Mutyaba et al and 46.4% in the study by Gulertem et al had undergone Pap testing.^{13,17}

CONCLUSION

Knowledge about cancer cervix, screening and practice of Pap smear is low among nursing staff. Despite knowledge of the gravity of cervical cancer and prevention attitudes and practices among nurses towards cervical cancer screening were negative. There is an urgent need for integration of cervical cancer prevention issues in the nurses existing training curriculum.

Recommendations

Hence it is recommended that routine training in the form of lecture, seminar of the entire health care provider to be done on regular basis or done as a part of the orientation program to newly employed nursing staff. This will give an opportunity to make women more aware, comfortable and confident for screening tests. Moreover, if nurses themselves undergo screening test regularly, they can be role models for the other females.

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REFERENCES

1. Standard & Guidelines, Cervical and breast cancer screening by VIA & CBE. New York: The United Nations Population Fund; 2006. Available at: [web2.unfpa.org>about>docDownload](http://web2.unfpa.org/about/docDownload).
2. Laikangbam P, Sengupta S, Bhattacharya P, Duttgupta C, Dhabali Singh T, Verma Y, et al. A comparative profile of the prevalence and age distribution of human papillomavirus type 16/18 infections among three states of India with focus on northeast India. *Int J Gynecol Cancer.* 2007;17:107-17.
3. International agency for research on cancer. Latest world cancer statistics global cancer burden raises to 14.1 million new cases in 2012: Marked increase in breast cancers must be addressed. GLOBOCAN 2012, World Health Organization Press release, 12th December 2013. Available at: http://www.iarc.fr/en/media-centre/pr/2013/pdfs/pr223_E.pdf.
4. Shanta V. Perspectives in cervical cancer prevention in India, The international network for cancer treatment and research; 2003. Available at: <http://www.inctr.org/meetings/pastmeetings/annual-meeting-2003/>.
5. Arbyn M, Rebolj M, De Kok IM, Fender M, Becker N, O'Reilly M, et al. The challenges of organising cervical screening programmes in the 15 old member states of the European Union. *Eur J Cancer.* 2009;45:2671-8.
6. Anttila A, Pukkala E, Söderman B, Kallio M, Nieminen P, Hakama M. Effect of organised screening on cervical cancer incidence and mortality in Finland, 1963-1995: recent increase in cervical cancer incidence. *Int J Cancer.* 1999;83:59-65.
7. Papanicolaou GN. A new procedure of staining vaginal smear. *Sci.* 1942;95:488.
8. O'Neal R. Cancer-stricken farrah fawcett weighs 86 pounds: Redmond O'Neal. USA: 2009. Available at: www.thaindian.com/.../cancer-strickenfarrahfawcett-weighs-86-pounds-redmondoneal_100181396.html.
9. Hand book on cancer. IARC 2003. Available from: www.iarc.fr/en/media-centre/pr/2003/index.
10. Dillner J, Rebolj M, Birembaut P, Petry KU, Szarewski A, Munk C, et al. Long term predictive values of cytology and human papillomavirus testing in cervical cancer screening: joint European cohort study. *BMJ.* 2008; 337:a1754.
11. Bathija GV, Mallesh S, Gajula M. A study on awareness of cervical cancer among women of reproductive age group in urban slums of old Hubli, Karnataka, India. *Int J Community Med Public Health.* 2016;3:2579-83.
12. Shah V, Vyas S, Singh A, Shrivastava M. Awareness and knowledge of cervical cancer and its prevention among the nursing staff of a tertiary health institute in Ahmedabad, Gujarat, India. *e Cancer Med Sci.* 2012;6.

13. Mutyaba T, Mmiro FA, Weiderpass E. Knowledge, attitudes and practices on cervical Cancer screening among the medical workers, Uganda. *BMC Med Edu.* 2006;6:13.
14. Shashank S, Sharma C, Thakur S, Raina N. Cervical cancer screening, KAP among nursing staff in a tertiary level institution of rural India. *Asian Pacific J Canc Prevent.* 2013;14,3641-5.
15. Urasa M, Darj E. Knowledge of cervical cancer and screening practices of nurses at a regional hospital in Tanzania. *African Health Sci.* 2011;1:48-57.
16. Singh E, Seth S, Rani V, Srivastava DK. Awareness of cervical cancer screening among nursing staff in a tertiary institution of rural India. *J Gynecol Oncol.* 2012;23:141-6.
17. Ertem G. Awareness of cervical cancer risk factors and screening behaviour among nurses in a rural region of Turkey. *Asian Pac J Cancer Prev.* 2009 Jan 1;10(5):735-8.

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