ORIGINAL RESEARCH PAPER

Medicine

"KNOWLEDGE ATTITUDE AND PRACTICES OF NURSING STAFF REGARDING CERVICAL CANCER AT TERTIARY CARE HOSPITAL"

KEY WORDS: Cervical Cancer, HPV, Pap smear, Knowledge

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ABSTRACT

(I) Background- Cervical cancer is common cause of death from cancer among women in India and in almost all patients, human papillomavirus (HPV) has been found. Various studies indicate that the knowledge level about cervical cancer and HPV in the general population is low. It becomes mandatory to assess the knowledge of nursing staff regarding cervical ca, Pap smear and HPV vaccination so that these will be act as pillar of awareness program regarding cervical ca.

(II) Objective- This study was conducted with objectives to assess the knowledge, of nursing staff about risk factors of cervical cancer and the knowledge attitude and practice regarding HPV vaccination and methods of prevention for cervical cancer.

(III) Methods- This questionnaire based cross-sectional study was conducted among the nursing staff at tertiary care centre. Convenient sampling was used with sample size of 145. Data so collected entered in Excel 2007 and open epi software version 2.0 was be used for data analysis.

(IV) Results- Total 96.6% Respondents were completely unaware of the availability of vaccine for prevention of cervical cancer. Not a single respondent knew the name of any available vaccine. About 72.4% respondents had not undergone a Pap smear screening in their life time and major reason was, they didn't consider it is important.

(V) Interpretation & conclusions- The nursing staff should be targeted first for successful implementation of cervical screening program and subsequently they can play important role in creating awareness among other health care providers and even in general public..

A.INTRODUCTION: -

- Cervical cancer afflicts Indian woman - physically, psychologically, socially and financially. India has 1/4th of world's burden of this disease.
- India has a population of 436.76 million women aged 15 years and older who are at high risk of developing cervical cancer[1]. Yearly 1, 34,420 Indian women are newly diagnosed with cancer of the cervix and each year the disease kills an estimated 72,825 Indian women. [1] If this condition remains same up to 2020 over 1 lakh Indian woman will succumb to the disease each year.[1]
- Human Papilloma virus (HPV) infection is seen in about 70% of cervical cancers [2]. HPVs 16 or 18 are associated with 82.7% cases of invasive cervical cancers [2].
- More than 80% of early asymptomatic cases of Cervical Intraepithelial Neoplasia (CIN) can be detected pre-clinically by various examinations such as; Papanicolaou smear (Pap smear) which is a primary diagnostic tool for cervical cancer, cold conisation which is done by collecting a biopsy, Loop Electrocautery Excision Procedure (LEEP) which is the newest and most common procedure performed by excising the cervical areas of concern and Visual Inspection with Acetic Acid (VIA) which is the recent method " see and treat"(Black and Hawks,2005).
- The differences observed between developed and developing countries with respect to mortality due to cervical cancer may be attributed directly to the frequency as well as acceptance of the Pap test. Various studies show a positive correlation between reduced mortality and Pap testing. [3,4]
- Population-based cervical smear screening programmes for cervical cancer have shown the effectiveness of screening in reducing mortality [5–8].
- The WHO estimates that a one-time screening among women around the age of 40 could reduce the chance of fatality due to cervical cancer by 25-30% if adequately followed up. Since cervical cancer usually progresses slowly, this once-in-a-lifetime screening could prevent abnormal cells from becoming fatal (World Health Organization- Alliance of Cervical Cancer Prevention-WHO-ACCP, 2009).
- Despite the high prevalence rate of cervical cancer in developing countries and an effective and simple screening test, awareness about cervical cancer and its prevention is low in developing countries.[20] Nursing staff who is more in touch with the patients as compared to other health care professionals can create a great awareness among patients. But before that knowledge regarding the same must be complete among nursing staff so that knowledge propagated to general public must be clear and without any ambiguity. It becomes necessary to assess the knowledge attitude and practise of nursing staff about cervical cancer, Pap smear screening and HPV vaccination. This study is crucial because it delves into the reproductive health of women.

B. OBJECTIVES

1. To assess the knowledge of nursing staff about risk factors of cervical cancer.
2. Knowledge attitude and practice of nursing staff regarding HPV vaccination.
3. Knowledge attitude and practice of nursing staff regarding Pap smear.

C. Materials & Method.

1. Study design: - A cross sectional study (observational study).

2. Study subject: - Female nursing staff.

3. Sampling: - Non-Probability Convenient Sampling (Complete Enumeration).

4. Sample size: - Out of total 155 nursing staff working at tertiary care hospital., 145 nursing staff participated (Rest 10 were absent from job, sick leaves, went for training and some were busy in work)

5. Study site: - A tertiary care hospital.

6. Study Period: - 2 months (10th August 2017 to 10th October 2017).

7. Inclusion Criteria: - All Female nursing staff.

8. Exclusion Criterion: - Nursing staff having any uterine pathology as they are already cautious.

9. Study Instrument: A Semi structured questionnaire was prepared. The questionnaire was validated by a group of experts of Department of obstetrics and gynaecology. Nursing staff was interviewed using this semi-structured questionnaire. Data so collected was entered in Excel 2007 and open epi software version 2 was be used for data analysis

10. Ethical Consideration: -

Informed consent from every participant was obtained. They were briefed that their participation was voluntary and had full right to withdraw from the study at any time. Ethical clearance was obtained from institutional ethical committee. Data so collected was handled with strict confidentiality.

Results: - Responses of 145 female nurses were recorded and analysed.

Table no. 1: - Distribution of Socio-Demographic Variables among nursing staff

Variables		Frequency	Percentage
Age in years	21-30	44	30.3
	31-40	21	14.5
	41-50	25	17.2
	51-60	55	37.9
Religion	BUDDHIST	20	13.8
	CHRISTIAN	16	11.0
	HINDU	97	66.9
	MUSLIM	12	8.3
Marital status	MARRIED	132	91.0
	SINGLE	13	8.9
Education	DEGREE	24	16.6
	DIPLOMA	117	80.7
	PG	4	2.8
Family size	1 to 3	52	35.8
	4 to 6	89	61.4
	>6	4	2.8
Family Type	JOINT	44	30.3
	NUCLEAR	98	67.6
	THREE GENERATION	3	2.1
Age at marriage(Years)	15-20	10	6.9
	21-25	70	48.3
	26-30	44	30.3
	>30	8	5.5
	Single	13	8.9
Menstrual cycle	Regular	130	89.7
	Irregular	15	10.3
Menopause	Attained	64	44.1
	Not-attained	81	55.9

- The mean age of the participants is 41.82 ±11.88 years. Majority of women (91%) were married. Maximum were Hindu (69.9%), followed by Buddhist (13.8%). Fifty five percent were married before the age of 25.

- **Knowledge**
- One fifth (21.4%) of nursing staff said that cervical cancer cannot present with symptoms at the early stage and cannot be detected at early stage. About 74.5% of nursing staff believed that cervical cancer can be prevented.
- About 53.1% respondent don't think that having intercourse at an early (<16yrs) age is a risk factor for cervical cancer. Having multiple partners for sexual activity or having sex with a person having multiple partners was not perceived as a risk factor by almost two fifth of nursing staff.
- Bleeding per vagina is the commonest symptom mentioned followed by uterine discharge & abdominal pain. Only 16.6% respondent found post coital pain as a symptom of cervical cancer.
- Principle cause of cervical cancer was known to only 15.2% respondents.
- Majority of respondent, 96.6%, were completely unaware of the availability of vaccine for prevention of cervical cancer. Not a single respondent knew the name of any available vaccine. About 68% of nursing staff didn't take HPV vaccination considering it is unnecessary.
- About 82.8% of nursing staff were aware about availability of Pap smear for the early detection of cervical cancer.
- Majority of respondents think that Pap test should not be done without any signs and symptoms of cervical cancer.

Table no. 2.1: - knowledge about cervical cancer

Variables	YES		NO		DON'T	
	FREQ	%	FREQ	%	FREQ	%
Can cervical cancer present without symptoms in early stage?	99	68.3	31	21.4	15	10.3
Is it possible to detect it in early stage?	104	71.7	31	21.4	10	6.9
Is it preventable?	108	74.5	18	12.4	19	13.1
Is cervical cancer curable?	91	62.8	30	20.7	24	16.6

Fig. 1: - knowledge about cervical cancer-symptoms

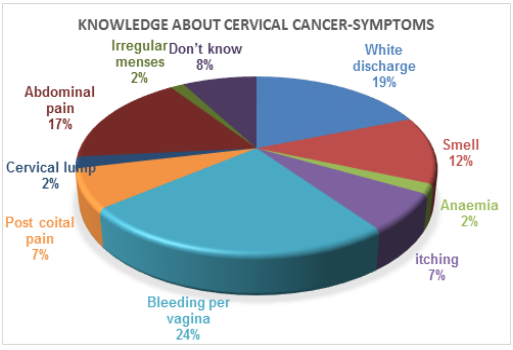

Table no. 2.2: - knowledge about cervical cancer-risk factors

RISK FACTORS	YES		NO		DON'T KNOW	
	FREQ	%	FREQ	%	FREQ	%
Being over 50 years	115	79.3	23	15.9	7	4.8
Having intercourse at an early (<16yrs) age	44	30.3	77	53.1	24	16.6
Infection with strains of Human Papilloma virus	64	44.1	29	20	52	35.9
Having multiple sexual partners	71	48.9	61	42.1	13	8.9
Having sexual activity with a man who has had multiple partners	55	37.9	58	40	32	22.1
Having frequent sexual activity with the same man	34	23.4	72	49.7	39	26.9
History of a sexually transmitted disease	104	71.7	32	22.1	9	6.2
Having several miscarriages	93	64.1	37	25.5	15	10.3
Giving birth to many children	61	42.1	62	42.8	22	15.2
Smoking	62	42.8	65	44.8	18	12.4
Family history of cervical cancer	87	60	54	37.2	4	2.8
Use of oral contraceptive	53	36.6	74	51.0	18	12.4
Intrauterine device (IUD) use	62	42.8	62	42.8	21	14.5

Table no. 2.3: - knowledge about principle cause of cervical cancer

Variables	Don't know	Bacteria	Fungus	Virus	Parasite	Genetic
Frequency	87	29	4	22	0	3
Percentage	60	20	2.8	15.2	0	2.1

Table no. 3: - - knowledge regarding HPV vaccination

Variables	YES		NO	
	FREQ	%	FREQ	%
Is there any vaccine available for prevention of cervical cancer?	5	3.4	140	96.6

Can you mention the names of available vaccines?	0	0	145	100
Do you know the schedule of HPV vaccination?	2	1.4	143	98.6
Would you take HPV Vaccination?	113	77.9	32	22.1
Would you advise women to get vaccinated against HPV?	137	94.5	8	5.5

Table no. 4: - - knowledge about Screening techniques

Knowledge about Screening Techniques of Cervical Cancer	Number Respondents familiar with technique	%
Pap smear	120	82.8
Colposcopy	10	6.9
Visual inspection with acetic acid (VIA)	5	3.4
Testing for HPV	2	1.4

Fig. 2:- Source of information (%)

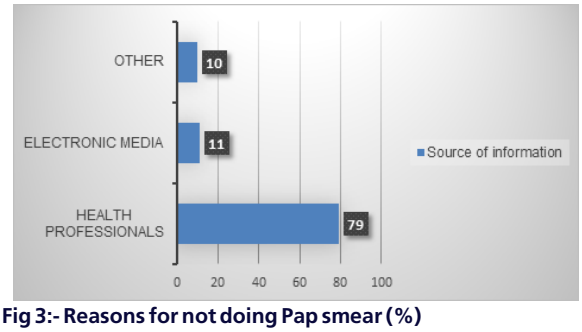

Fig 3:- Reasons for not doing Pap smear (%)

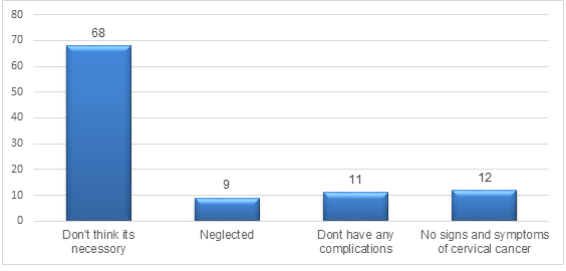

Table no. 5: - Perceived Risk of Cervical Cancer

Category	Frequency	Percentage
High	3	2.1
Moderate	18	12.4
Low	15	10.3
Very Low	34	23.4
No	75	51.7

Table no. 6: - Attitude & Practice toward screening

Questions related to Attitude	YES		NO		Don't Know	
	FREQ	%	FREQ	%	FREQ	%
Do you think all women should undergo screening for cervical cancer?	122	84.1	22	15.2	1	0.7
Would you advice you patient to undergo pap test?	126	86.9	16	11.0	3	2.1
In future would you like to undergo pap smear test?	109	75.2	34	23.4	2	1.4
Have you ever got Pap test done in your life time as screening procedure?	40	27.6	105	72.4	0	0

Table no 5 & 6 shows that about 51.7% of the nursing staff perceived themselves not at risk of developing cervical cancer. About 86.9% respondents were willing to advice their patients for Pap test. About 23.4% respondents were not willing to do Pap test in future. About 84.1% respondents believed that all women should undergo screening for cervical cancer but only 27.6% personally went through it after recommended by gynaecologist. About 72.4% respondents had not undergone a Pap smear screening voluntarily in their life time. The reason for it was they never considered it important.

D. DISCUSSION

- The respondents had mean age 41.42±11 years. About 18.6% respondents were unaware of signs and symptoms of cervical cancer.
- In the present study only 19% mentioned abnormal vaginal discharge as symptoms of cervical cancer, while in a study by Nganwai et al [11], 92.4% knew that abnormal leucorrhoea or blood-stained vaginal discharge are the symptoms of cervical ca..
- In a study by Anya et al. [12] 80.6 percent female health personnel's knew that vaginal bleeding is associated with cervical ca. on the other hand in present study Only 55.86% of respondents knew that bleeding per vagina is one of the symptoms of cervical cancer. It may be due to only nursing staff was included in present study and not the other health professionals like doctors, pharmacist and laboratory technicians.
- In our study 71% stated that multiple sexual partners as one of the risk factors, while in a study of Ali et al [13], only 45% participants mentioned mul tiple partners and other promiscuous behaviour as the most common risk factor..
- n the present study, knowledge regarding Pap test was present in 82.8% of respondents. Similar findings (83%) were documented in a study carried out by Mutyaba et al [14].
- In study of Awodele et al [15], 92% of the respondents were aware of the causative organism of cervical cancer (human papillomavirus) but in our study majority of the respondents had no knowledge of principle cause of cervical cancer (87%). Our nursing staff found to have very poor knowledge about human Papilloma virus (HPV). About 29% believed that cervical cancer is a bacterial infection. Their major sources of information were through electronic media and health professionals. This finding is consistent with our study.
- Similar studies done by different authors further strengthen the fact that though nursing staff identify certain aspects of cervical cancer, they don't have proper and complete knowledge of it. Being nursing personnel, complete knowledge of preventable diseases like cervical cancer is expected from them. [14,16-18]
- V. V. Anantharaman, S. Sudharshini, A. Chitra[19],according to their study , About 80.4% felt that they should undergo cervical cancer screening for themselves. But only 18.4% of the female HCPs have ever undergone cervical cancer screening. In our study about 84.1% respondents believed that all women should undergo screening for cervical cancer but only 27.6% personally went through it after recommended by gynaecologist.
- In present study about 51.7% of the nursing staff perceived themselves not at risk 23.4% at a very low risk of developing cervical cancer which is found consistent with results of study conducted by Nganwai et al [11] which stated that regarding attitudes toward the risk of cervical cancer, 6% thought that they had no risk, 48.1% a low risk, 24.8% a moderate risk and 4.5% a high risk.
- Ragin CC et al [21] conducted similar study in general population which mentioned that Eighty-seven percent (87%) of participants had heard of the HPV vaccine. In present study 96.6% of nursing staff didn't know about HPV Vaccine. It is due to nil importance given to HPV vaccination and poor awareness activities.

E. CONCLUSION

From this study, we can conclude that: -

- Almost all the nursing staff has a poor to moderate level of knowledge regarding cervical cancer but there are still some major deficits. The levels of knowledge and understanding of cervical cancer as well as its preventable nature should be improved. Educational pamphlets, notices and hospital announcements would be useful in increasing their knowledge.
- Major misconception is found regarding causative organism

for cervical cancer. Our data also establishes the fact that knowledge about HPV vaccination is fairly lacking in nursing staff. Not a single respondent knew the names of available vaccines for prevention of cervical cancer. But after knowing about it, majority of respondents were willing to take it and ready to recommend to their patients.

- We found gap between knowledge and practice of nursing staff regarding screening for cervical cancer. About 84.1% believed that all women should undergo screening for cervical cancer but only 27.6% respondent had undergone Pap test after recommendation from gynaecologist. About 72.4% respondents had never undergone Pap test. Misconceptions regarding screening need to be urgently addressed among the nursing staff.
- Thus, it is found in study that seminars and training should be organised periodically for nursing staff to make them more competent in delivering health services regarding cervical cancer.
- The nursing staff should be targeted first by education for successful implementation of cervical screening program and they can play important role in creating awareness in society.

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