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A Cross-Sectional Study on Knowledge, Attitude and Practice on Cervical Malignancy and its Screening among Adult Women

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ABSTRACT

Introduction: Even though a preventable disease, cervical malignancy remains one of the common cancers among women in India. Lack of knowledge, undesirable attitudes and poor practices are culprits for the late detection of cervical cancer. Early screening and adequate knowledge about the disease remains the important safeguards against this disease.

Objective: This study determines the level of knowledge, attitude and practice on cervical cancer, screening and vaccination.

Methods: This was a cross-sectional study carried out on women aged 18 -65 years of age in the rural population. Participants were interviewed with the predesigned questionnaire.

Results: A total of 502 women participated in the study. Maximum were in the age group of 20-40 years i.e 59.56%. 60.75% had heard about cervical cancer, 31.47% had heard about screening for cancer cervix and only 15.1% knew that cervical cancer is preventable. 79.87% agreed in favour of high importance for cervical screening. 96.81% strongly agreed with the plan of free government screening camps. Despite favourable attitude, only 10.35 % were screened for cervical cancer and 0.79% were vaccinated.

Conclusion: The study highlights that knowledge was inadequate and screening and vaccination rates were very low in the participants. This highlights the need to educate the community regarding cervical cancer prevention and to make these services readily available at affordable costs to achieve the ultimate goal of elimination of cervical cancer.

Key Words: Annual age-standardized incidence rate, Cervical malignancy, Cervical cancer

INTRODUCTION

Cervical cancer is the fourth most prevalent cancer in women globally.¹ A malignant cervical tumour involves the outermost squamous or inner glandular cells of the cervix.² Adenocarcinoma and squamous cell carcinoma, are types of cervical cancer. Tumours developing from the area of the ectocervix are squamous cell carcinomas which account for 80% to 90% of cervical cancers in India. Adenocarcinomas are tumours that grow from the endocervix.³ As per the Global Cancer Observatory 2018 database, 5,70,000 cervical malignancy cases were detected and reported with mortality being 3,11,000 cases. India reported 97000 new cases and 60,000 deaths in 2018.⁴ The most significant risk factor for cervical cancer is infection with Human Papilloma Virus.⁵

HPV strain 16 and 18 are responsible for malignant lesion while HPV6 and HPV 11 are responsible for benign lesions. The knowledge that chronic carcinogenic human papilloma-virus (HPV) infection is the primary cause of cervical cancer growth has opened new avenues for primary and secondary prevention.⁴

The WHO's goal is to reduce cervical cancer ASIR (annual age-standardized incidence rate) to less than 4 per 100,000 women worldwide by vaccinating 90% of all girls by the age of 15, screening 70% of women twice in the age range of 35-45 years and treating at least 90% of all precancerous lesions found during screening.⁴ Using Pap smear and liquid-based cytology, traditional screening techniques, screening cervical cancer is possible.⁵

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HPV scanning is a more innovative screening process that is gaining a lot of attention.⁶ In defending against preinvasive and invasive cervical cancer, trials have shown better outcomes with HPV experiments than with cytology.⁷ In low resource areas as India, there are many barriers to the implementation of cervical cancer screening for women that include a low level of understanding and knowledge of risk factors and early signs and symptoms of disease, few preventive programmes, stigma and myths regarding female cancer and gynaecological diseases and socioeconomic constraints.⁸

Consistent data suggests that approved bivalent and quadrivalent HPV vaccines containing HPV16 and HPV18 antigens are highly successful in shielding people from infection and precancerous cervical lesions associated with these forms when people are not yet exposed.⁴ HPV vaccine as a method of primary prevention and cervical screening and treatment of early lesions as a method of secondary prevention together can help reduce the huge burden of cervical cancer in India. The implementation of both methods of prevention can make cervical cancer occurrence and death largely avoidable.⁴

This study is intended to evaluate knowledge, understanding, attitude mindset and the practice of cervical cancer, its screening and vaccination among the rural female population. Hopefully, the research would provide valuable evidence for suitable measures needed to deter Cervical Cancer-related mortality and morbidity.

MATERIALS AND METHODS

This was a cross-sectional study conducted at Shalinitai Meghe hospital and research centre on rural population for 1 year from August 2019 till August 2020 Female population from 18 till 65 years of age group attending gynaecology OPD were included in the study. After taking consent, a validated questionnaire was given to the study participants. The questionnaire comprised of details regarding sociodemographic factors, knowledge, attitude and practice regarding cervical cancer screening and practice. There were 16 questions regarding knowledge on cervical cancer and screening. The answer was noting as YES, NO or don't know. Each YES scored 1 point and each NO/DON'T KNOW scored 0 points. A total of 8 points was considered as having adequate knowledge of the subject. The questionnaire on attitude included 5 questions with responses noted as strongly agree, agree, disagree, strongly disagree. 3 or more responses as strongly agree or agree were noted as having a favourable attitude. Participants who were vaccinated or screened for cervical cancer were considered as following good practice.

RESULTS

502 female participants from rural settings were studied. 21.91% of the participants were less than 20 years of age. 59.56% of participants were between 20- 40 years of age and 18.52% of participants were more than 40 years of age. 33.26% of participants were Hindu, 20.11% were Muslim, 6.17% were CHRISTIAN and 39.44% were Buddhist. As the study was done in a rural setting, the education standard was quite low. 7.76% participants were illiterate, 32.86% had schooling up to 7 th std, 28.08 % and 17.7% had education up to 10 std and 12 std respectively. 11.9 % were graduate and only 1.59 % were postgraduate. 70.11% of participants were married with 47.80% participants having 1or 2 children and 17.92% of participants had 3 or more children. Out of 29.88% unmarried females, 15.33% were sexually inactive and 14.52% were sexually active. Maximum females, 61.95% were housewives, 12.35 % were labourers and 20.11 % were doing some kind of job (Table 1).

Table 1: Sociodemographic factors

Factors	N	%
Age		
<20 years	110	21.91%
20-40 years	299	59.56%
>40 years	93	18.52%
Marital status		
Married	352	70.11%
Unmarried (sexually inactive)	77	15.33%
Unmarried (sexually active)	73	14.54%
Religion		
Hindu	167	33.26%
Muslim	101	20.11%
Christian	31	6.17%
Buddhist	198	39.44%
Others	5	0.99%
Education		
Illiterate	39	7.76%
Upto 7 th std	165	32.86%
Upto 10 th std	141	28.08%
Upto 12 th std	89	17.7%
Graduation	60	11.9%
Postgraduation	8	1.59%
Occupation		
Homemaker	311	61.95%
Labourer	62	12.35%
Service job	101	20.11%

Table 1: (Continued)

Factors	N	%
Others	28	5.57%
Parity		
Nulligravida/nullipara	172	34.26%
1 or 2 children	240	47.80%
3 or more children	90	17.92%

Table 2 depicts the knowledge levels about cervical cancer and screening among the rural population. As the education standard is low, the knowledge levels about cervical cancer and screening are also very low among the participants. Only

60.75% of participants have heard about cervical malignancy and only 31.47% knew about its screening. 15.93% of participants thought that cancer can not be prevented while 68.92% had no idea about its prevention. Almost two-third i.e 66.53% of the participants did not know that cervical cancer can be treated if detected early. The knowledge regarding risk factors for cervical cancer and symptoms of cervical cancer were poor among the participants. 40.03% and 31.67% knew about poor hygiene and multiple sexual partners being risk factors for cervical cancer respectively. 43.02% and 13.74% of participants knew about foul-smelling discharge and post-menopausal bleeding are symptoms of cervical cancer respectively. Only 19.52% of participants had heard about the HPV vaccine.

Table 2: Knowledge

QUESTIONS	NO OF PARTICIPANTS			PERCENTAGE		
	YES	NO	DN	YES	NO	DN
Have you heard about cervical malignancy	305	197		60.75%	39.24%	
Have you heard about cervical cancer screening or pap smear test	158	344		31.47%	68.52%	
Whether cervical cancer is preventable?	76	80	346	15.10%	15.93%	68.92%
Do you know that cervical cancer can be treated if detected early	52	116	334	10.35%	23.1	66.53%
Poor genital hygiene	201	97	204	40.03%	19.32%	40.63%
Multiple sexual partners	159	101	242	31.67%	20.11%	48.20%
Young age at onset of coitus	49	105	348	9.76%	20.91%	69.32
High parity	16	198	288	3.18%	39.44%	57.37%
Viral/hpv infection	21	19	462	4.18%	3.78%	92.03%
Smoking	29	31	442	5.77%	6.17%	88.04
Prolong use of birth control pill	20	36	446	3.98%	7.17%	88.84%
Foul smelling pv discharge	216	43	243	43.02%	8.56%	48.40%
Intermenstrual bleeding	35	50	417	6.97%	9.96%	83.06%
Postmenopausal bleeding	69	71	362	13.74%	14.14%	72.11%
Post-coital bleeding	40	152	310	7.96%	30.27%	61.75%
Heard about hpv vaccine	98	404		19.52%	80.47%	

Even though participants had poor and inadequate knowledge regarding cervical cancer and screening, they had a good attitude towards the same (Table 3). 40.23% and 39.64% of participants strongly agreed and agreed respectively that cervical cancer screening is important. 51.19% strongly agreed

with seeking medical help in case of abnormal bleeding or per vaginal discharge. 27.88% strongly felt the need for regular screening. Only 0.19% disagreed with free government screening camps. 66.93% strongly felt the need to encourage others for screening for cervical cancer screening.

Table 3: Attitude

Attitude questions	SA	A	SD	D
Cervical cancer screening is important as it is a common cancer of females	202 40.23%	199 39.64%	42 8.36%	59 11.75%
Should seek medical help in case of abnormal bleeding pv or pv discharge	257 51.19%	82 16.33%	19 3.78%	144 28.68%
All sexually active women till 65 years should regularly get screened	140 27.88%	194 38.66%	25 4.98%	143 28.48%
Free government screening camps Be held	486 96.81%	15 2.98%	-	1 0.19%
Encourage others to get screened	336 66.93%	104 20.71%	15 2.98%	47 9.36%

SA- Strongly Agree, A-Agree, SD-Strongly Disagree, D- Disagree.

Even though 10.32% of participants were screened for cervical cancer in the past only 1.19% were undergoing regular screening. Only 4 participants i.e 0.79 % had taken HPV vaccine. 40.03% ,

Table 4: Practice

Questionnaire	YES	NO
Have you ever screened for cervical cancer (pap test, lbc, hpv dna)	52 (10.35%)	450 (89.64%)
Are you regularly undergoing cervical cancer screening	6 (1.19%)	496 (98.80%)
Are you vaccinated with hpv vaccine	4 (0.79%)	498 (99.20%)

Females between 20 – 40 years of age had adequate knowledge and females less than 20 years of age had a good attitude for cervical cancer screening. As compared to unmarried females, married females had better knowledge and perception. Religion made no significant difference between the level of knowledge. Illiterate and housewives were much ignorant about cervical cancer and screening. As the level of education increased so the level of knowledge and level of fair attitude.

Table 5: Relation between sociodemographic parameters and knowledge and attitude

Age	Adequate knowledge (%)	Good attitude (%)
<20 years	55.4%	62.7%
20 -40 years	68.56%	69.89%
>40 years	40.86%	68.81%
Marital status		
Married	45.17%	55.15%
Unmarried	34%	50.66%

Table 5: (Continued)

Age	Adequate knowledge (%)	Good attitude (%)
Hindu	41.91%	70.65%
Muslim	34.65%	41.58%
Christian	25.80%	29.03%
Buddhist	35.35%	67.67%
Occupation		
Homemaker	27.97%	38.90%
Labourer/job	75.91%	78.53%
Education		
Illiterate	2.56%	20.51%
Upto 10 std	40.19%	52.28%
Graduation and above	89.17%	90.44%

DISCUSSION

This study was carried out at a hospital and medical college in a rural setting among females of 18-65 years of age attending gynaecology OPD. The study assessed the knowledge, attitude and practice for cervical cancer and screening. 60.75% of the participants had heard about cervical cancer. This is comparable to the study done by Shrestha et al.⁹, Tran et al.¹¹ and Bansal et al.¹² where 65.7%, more than 60% of participants and 65.5% had heard about cervical cancer respectively. As opposed to a study done by Gupta et al.¹⁰ where 91.56% had heard about cervical cancer.

In this study, 31.47% had heard about cervical cancer screening and 15.1 % knew that it can be prevented., while in the study by Tran et al.¹¹ 30.3% knew that cervical cancer can be prevented and 13.1 %knew about screening. The results are also similar to a study by Bansal et al¹² where 34.5% knew about cervical screening. In this study, 31.67 % knew multiple sexual partners being risk factors and 4.18% knew about

HPV infection as a risk factor which is comparable to a study done by Bansal et al.¹² 43.02% and 13.74% of participants knew about abnormal vaginal discharge and post-menopausal bleeding as symptoms of cervical cancer which is comparable to study by Tran et al.¹¹ and Gupta et al.¹⁰

While 40.23% strongly agreed and 39.64% agreed that cervical cancer is common cancer and its screening is important, the result is similar to study done by Misra et al.¹³ Good attitude for free government screening camps was seen as only 1 participant disagreed with the same, similar to study done by Ali et al.¹⁴ Even though one-third of participants had heard about cervical cancer screening and 19.5 % had heard about the HPV vaccine, only 10.35% were screened for cancer and only a few as 1.19% were getting screened regularly, whereas 0.79% i.e only 4 participants were vaccinated. The values are very low compared to other studies by Misra et al.¹³, Gupta et al.¹⁰, Bansal et al.¹² This poor level of practice can be attributed to a low level of education and lack of awareness. Gupta et al. reported Correlation of Ki-67 Labeling Index in Cervical Intraepithelial Neoplasia.¹⁵ Several related studies were reviewed.¹⁶⁻¹⁹ Studies on assessments of knowledge, attitude and practices related to different health aspects were reviewed.²⁰⁻²³ Choudhary et al. assessed family planning knowledge, attitude and practice among women of reproductive age from the rural area of Central India.²⁴

CONCLUSION

This study brings to light the need to increase awareness about cervical cancer and screening amongst people, especially in the rural area. Knowing is just not enough having a good attitude and most importantly practising is important. Not only lack of education but lack of infrastructure and uniform quality of health care provided in different regions in India with large dissimilarities in urban and rural settings are the culprits. Motivation from friends and family and health awareness through various mass media like television, internet newspaper will help in bridging the gap between ignorance, perception and practice. A multidisciplinary approach is required in handling the burden of cervical cancer.

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