



**ORIGINAL RESEARCH PAPER**

**Obstetrics & Gynaecology**

**AWARENESS, KNOWLEDGE, PRACTICE OF CERVICAL CANCER SCREENING**

**KEY WORDS:** cervical cancer, pap smear, risk factors

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**ABSTRACT**

**INTRODUCTION:** The annual number of cases of cervical cancer in India is 96,922. It is one of the most common types of cancer in women. Cervical cancer can be prevented with proper education and screening of the disease. Even it being a preventable disease there is not enough awareness of this issue. There is a need for awareness of cervical cancer and it's screening as it can be prevented or detected in earlier stages and the mortality can be reduced.

**OBJECTIVE:** To assess the awareness of cervical cancer screening in rural women and to increase the prevention of cervical cancer. To assess the level of knowledge of cervical cancer screening. To determine the practices of women regarding cervical cancer screening

**MATERIALS AND METHODS:** A prospective cross sectional based study was conducted with 75 outpatients who visited the obstetrics and gynecology department of Saveetha medical college between January 2020 and March 2020. The patients were interviewed with a set of questions about the awareness, knowledge, and practice of cervical cancer screening. It was further analyzed with the help of Microsoft Excel and SPSS software with  $p < 0.005$  as significant

**RESULTS:** In the 75 subjects that were interviewed more than 50% (47) of the subjects had adequate knowledge about cervical cancer. It was observed that 64% of the subjects were aware that pap smear was used to detect cervical cancer but only 37% of the subjects were aware of vaccination for cervical cancer. An association was observed between the attitude, knowledge, and practice of cervical cancer to a higher socioeconomic class, older age of marriage and a greater education status

**CONCLUSION:** A better awareness and knowledge of cervical cancer among the people will encourage a better practice of cervical cancer screening and prevention of the disease. There should a large effort to educate the people about cervical cancer and its screening.

**INTRODUCTION**

Cervical cancer is the fifth most common cancer in humans, the second most common cancer in women worldwide, and the most common cause of death in developing countries. Sexually transmitted human papillomavirus (HPV) infection is the most important risk factor for cervical intraepithelial neoplasia and invasive cervical cancer.[1] In India, cervical cancer ranks as the 2nd leading cause of female cancer with approximately 96,922 new cervical cancer cases being diagnosed annually, especially in the reproductive age group. 60,078 cervical cancer deaths are reported in India making it the 2nd most common cause of cancer deaths among women.[2]

Cervical cancer is one of the only preventable cancers, which can be prevented in the precancerous stages of cervical cancer including that of cervical intraepithelial neoplasia (CIN). Cervical intraepithelial neoplasia (CIN) involves cellular abnormalities limited to the surface epithelium and does not extend beyond the basement membrane. CIN is classified into three grades CIN1, CIN2, CIN3. CIN 1 lesions are caused by HPV infections in the infectious or productive phase whereas CIN 2 & CIN3 are caused by persistent HPV infection and not always preceded by CIN 1. CIN 1 lesions regress to normal in 1 year and progression into invasive carcinoma is less common than that of CIN 2 & CIN 3 lesions [3]. The progression of CIN to invasive carcinoma takes 10-20 years. CIN 1 if LSIL then routine screening is conducted. In cases of CIN 2 and CIN3 is treated with excision or ablation. Cervical cancer is predominantly caused by human papillomavirus which is sexually transmitted. The other predisposing factors leading to cervical cancer are multiple sexual partners, early commencement of sexual intercourse, delivery of the first baby before the age of 20, multiparity with close spacing between the babies, sexual intercourse with uncircumcised men, use of oral contraceptive pills, immunocompromised patients. As the interval between the progression of precancerous lesions and invasive carcinoma is large, it can be prevented by screening methods. The

commonly used screening method is Pap smear which has high sensitivity and low specificity. The other methods of screening can be done by liquid-based cytology, VILI, and VIA. VIA and VILI are used in low resource settings. The prevalence of cervical cancer in rural areas is due to the difference in resources, infrastructure, and population [4]. Hence the present study was undertaken to assess the level of awareness, knowledge regarding cervical cancer among rural women.

**MATERIALS AND METHODS**

A prospective cross sectional-based study was conducted in Saveetha medical college outpatient obstetrics and gynecology department between the months of January 2020 to March 2020. The study was conducted after ethical clearance and informed consent by interview method with the help of a validated questionnaire on the awareness, knowledge, and practice of cervical cancer screening among rural women attending the hospital. 75 women belonging to the age between 18-65 years were interviewed. Questions asked about awareness were evaluated on the bases where the subject answered with agreeing or strongly agree. Knowledge and practice were evaluated on yes or no questions which yes was given a score of 1 and no of 0 with 50% indicating adequate knowledge. The data collected was analyzed using Microsoft excel. Awareness and knowledge were correlated with Sociodemographic characteristics of educational status and socioeconomic status with the help of SPSS software with  $p < 0.05$  as significant.

**RESULTS**

The 75 subjects interviewed using the questionnaire on the basis of their age, the sociodemographic profile was analyzed and the mean age of the subjects was 34.1 years with the age range from 18-60 years. Married women consisted of 49 % (37) and single women consisted of 51.67% (38) of the study. The awareness of cervical cancer was assessed with the help of questions on the signs of cervical cancer, in which 24.6% people strongly agreed the intermenstrual bleeding is a sign

of cervical cancer, 30.4% strongly agreed that postmenopausal bleeding is a sign of cervical cancer, 27% strongly agreed that bleeding during or after intercourse is a sign of cervical cancer, 20.4% strongly agreed that foul-smelling vaginal discharge is a sign of cervical cancer. The knowledge of HPV as the main causation factor of cervical cancer was not known to 65.34% of the subjects. 16% of the subjects knew that multiple sexual partners can increase the risk of cervical cancer but 84% of subjects were unaware of it. Early sexual intercourse was known as a risk factor to 24% of the subjects whereas smoking was known to 18.67% of the subjects. 26% of the subjects were aware that oral contraception increases the risk of cervical cancer. The number of subjects with adequate knowledge of cervical cancer with correct answers of 50% or above was found to be 29. The practice of cervical cancer was determined by their knowledge of pap smear. It was found that 64% of the subjects were aware that pap smear is used for the screening of cervical cancer. When asked the age at which screening is started the average age told was 24.85 years. Out of the 75 subjects, only 28% of subjects have had a pap smear, out of which 34.4% knew that it is done once in 3 years. The knowledge on the availability of vaccination for HPV was known only to 37% of the subjects and out of the 75 subjects, only 12% (9) are vaccinated for HPV.

It was found that the awareness of the subjects towards cervical cancer was higher in subjects with higher education status (p=0.0349), the age of marriage is above 25 years (p=0.458) and in subjects who belong to the socioeconomic status of the upper-middle class and above (p=0.0389). 47 of the 75 subjects interviewed had adequate knowledge towards cervical cancer and it was associated with high education status (p=0.0491) and age of marriage above 20 (p=0.0239). The 9 out of 75 subjects that were vaccinated were either from a high economic status (p=0.0417) or high educational background (p=0.0428).

**SOCIODEMOGRAPHIC CHARACTIES**

**AGE OF MARRIAGE**

<20 YEARS	6
21-25 YEARS	19
26-30 YEARS	12
>31 YRS	2

**EDUCATION**

NO FORMAL EDUCATION	13
PRIMARY SCHOOL	11
MIDDLE SCHOOL	28
HIGHER SECONDARY SCHOOL	20
COLLEGE	2
MASTERS	1

**SOCIOECONOMIC STATUS**

UPPER CLASS	1
UPPER MIDDLE CLASS	14
LOWER MIDDLE CLASS	23
LOWER CLASS	37

	AWARENESS ABOUT SYMPTOMS OF CERVICAL CANCER				
SIGNS	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
Intermenstrual bleeding	43.6%	19.3%	5.3%	6.7%	24.6%
Postmenopausal bleeding	39.1%	10.5%	5.3%	14.7%	30.4%
Bleeding during or after sexual intercourse	43.4%	10.5%	4.5%	12%	2.7%
Foul smelling vaginal discharge	56.7%	9.1%	9.3%	4.7%	20.2%

Knowledge of cervical cancer		
RISK FACTORS	YES	NO
HPV causes cervical cancer	26	49
Multiple sexual partners	12	63
Early age of sexual intercourse	18	57
Cigarette smoking	14	61
Oral contraceptive pills	20	55
SUBJECTS WITH ADEQUATE KNOWLEDGE (>/=50%)	47	
SUBJECTS WITH INADEQUATE KNOWLEDGE	28	
TOTAL	75	

PRACTICE OF CERVICAL CANCER SCREENING		
Pap smear knowledge	Yes	No
Awareness of pap smear used for screening of cervical cancer	64%	36%
Subjects that have had pap smear	28%	72%
HPV VACCINATION		
Awareness of availability of HPV vaccination	28	47
Vaccinated	9(12%)	66(86%)

**DISCUSSION**

Cervical cancer is known to be able to be prevented with efficient screening is one of the leading causes of death due to cancer in India. This can be achieved by a pap smear, which not only allows us to detect cancerous lesions but also identify the precancerous lesions of cervical cancer which can be treated and progression into invasive carcinoma can be prevented. In our study, it was found that there is an association between awareness, knowledge, and practice of cervical cancer and subjects with high background of education, economic status, and women who married at an older age. A larger part of the study constituted of subjects that belonged to a lower socioeconomic status, had a poor educational background, and was married at a younger age. A large part of the subjects in the study, about 64% were aware that pap smear was used for the screening of cervical cancer. In similar studies conducted in New Delhi[5], Bhopal[6], Kerala[7], Kuwaiti[8], Nigeria[9] it was observed that the knowledge was slightly higher in association with education, greater age of marriage separately but overall there was low awareness, knowledge, and practice of cervical cancer screening by the study done on the rural women in our study. Higher education among the subjects had better awareness, knowledge, and practice towards cervical cancer screening than others from the rural area. They were able to answer the questions related to the risk factors, symptoms of cervical cancer, and were vaccinated. Many of the patients with a lower educational background knew the use of pap smear but hadn't had one before and neither were vaccinated. The knowledge of the risk factors was aware of more than 50% of the subjects. Higher education was also observed in subjects to the greater age of marriage than with subjects who married at a younger age. The patients belonging to a higher economic status were well aware of the about cervical cancer and were vaccinated. As it can be seen that good education can improve the screening of cervical cancer, patients must be educated more on the upside of screening and its prevention.

**CONCLUSION**

Better awareness and knowledge of cervical cancer among the people will encourage a better practice of cervical cancer screening and prevention of the disease. There should be an active effort to educated rural people about the disease, risk factors, and symptoms and must be encouraged to get screened for cervical cancer. Healthcare professionals must educate the patients they encounter and must encourage the patient to be screened.

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