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ORIGINAL ARTICLE

KNOWLEDGE AND PRACTICE REGARDING PREVENTION OF CERVICAL CANCER AMONG WOMEN ATTENDING A TERTIARY CARE CENTRE OF TRIPURA

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ABSTRACT: BACKGROUND: Cervical cancer, common among Indian women is now considered as preventable. **OBJECTIVES**: To find out the knowledge regarding prevention of cervical cancer, practices towards its prevention and its determinants among women attending a tertiary care centre of Tripura**. METHODOLOGY**: A hospital based cross-sectional study was conducted during 8th April 2014 to 17th May 2014 using a pretested structured interview schedule among 289 women attending the Gynaecology O.P.D of AGMC & G.B.P Hospital recruited by systematic random sampling. **STATISTICAL ANALYSIS**: Data entry and analysis were performed in computer using SPSS 15. Descriptive statistics and Chi-square test were used for presenting data and testing the significance. **RESULTS**: Cervical cancer was known as preventable to 61.9 % of the study women. About 59.2% women knew multiple sex partners, 42.6% knew exposure to sexual intercourse at early life, 72.7 % knew poor sexual hygiene and 26.0% knew heredity as the risk factors for getting cervical cancer. Approximately 16.3% women knew about the vaccine against cervical cancer, 59.86% knew it as a treatable disease and 15.57% have heard about PAP smear test. Only 10.38 % of the study women underwent PAP smear test and 0.3 % were vaccinated against cervical cancer. Regarding cervical cancer, 29.41% women knew either by studying or from the media, 22.49% from friends and relatives and only 16.26% from health workers whereas 31.84% were unaware. Literacy of the women was found to be significantly associated with their awareness and practices regarding prevention of cervical cancer. **CONCLUSION**: Knowledge regarding possibility of early diagnosis, preventability and treatability of cervical cancer is found to be low among women. Role of health workers for making people aware was inadequate; hence IEC and BCC activities need acceleration for awareness generation and motivation for undergoing vaccination and screening for cervical cancer.

KEYWORDS: Cervical cancer, PAP smear, Knowledge, Practice, Tripura.

INTRODUCTION: Cervical cancer is the second leading cancer among women worldwide[2]. Every year about 500,000 new cases of cervical cancer are diagnosed worldwide and are responsible for about 280,000 deaths, and 80% of total cases occur in developing countries. In India, cervical cancer is the most common woman-related cancer, followed by breast cancer.

India contributes to about 1/4th of the world's registered cervical cancer cases by having 1, 32,082 newly diagnosed cases per year and 74,118 deaths because of the same.[3] During 2011, out of 726 women suffering from cancers, 161 were suffering from carcinoma cervix and 107 from breast cancer in Tripura.[4] The known primary underlying cause is the Human Papilloma Virus (HPV) especially HPV-16 and HPV-18, which is the most common sexually transmitted infection worldwide, and it is estimated that 50% to 80% of sexually active women are infected at least once in their

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lifetime. Prevention of cancer of the cervix is achievable by preventing HPV infection and ensuring early detection and treatment which significantly reduces the morbidity and mortality.[5] It is possible to prevent death due to cervical cancer through various strategies that target women above 30 years for screening, diagnostic and effective therapeutic procedures.

Introduction of Papanicolau test (PAP) led to significant reduction in mortality and morbidity in developed countries through early detection and treatment, whereas proportion of women screened by PAP test in Asian countries is very low. Despite existence of national guidelines, the screening coverage in India is appalling and is mainly attributed to inequality between infrastructure, resources and outsized population. As a result, very often diagnosis of cervical cancer is based upon opportunistic screening or after the onset of symptoms.[6] Number of women dying from cervical cancer in Tripura is increasing day by day. Medical experts opine that a large proportion of these deaths could have been averted if proper screening and preventive measures are adopted in time.

The responsibility of cancer prevention also lies to a great extent up on the women themselves. North Eastern state, Tripura differs from rest of the nation regarding knowledge, awareness and practice of women regarding their sexual health. Only limited number of studies has explored the level of knowledge, practice and determinants of awareness regarding cervical cancer in them. Hence the present study was designed to find out the knowledge regarding prevention of cervical cancer, practices towards prevention and its important determinants among women attending Gynaecology OPD of Agartala Government Medical College and Govinda Ballabh Pant Hospital, the largest tertiary health care centre of Tripura.

METHODOLOGY: It was a hospital based cross-sectional study conducted among women attending Gynaecology OPD of Agartala Government Medical College and Govinda Ballabh Pant Hospital during 8th April 2014 to 17th May 2014 using a pretested, structured interview schedule containing questions regarding education, occupation, income, marital status, age, knowledge & practice regarding prevention of cervical cancer etc. Minimum sample size requirement for this study at 5% level of significance was calculated to be 289 women using the formula for calculating sample size in prevalence studies,[7] considering the level of awareness regarding cervical cancer among women as 76.4%[8] and 5% absolute error. Knowledge level of women regarding cervical cancer prevention was defined as the proportion of women knew cervical cancer as a preventable disease. Illiterate were those who did not have formal schooling. Primary educated were those who had schooling of any level between standard I to VIII. Secondary educated were those who had schooling of any level between standard VIII to XII. Graduate & above were those who studied up to any level in a college or university. Face validity and content validity of the interview schedule was evaluated by piloting it up on 18 OPD patients and 3 epidemiologists were also asked to evaluate the clarity and representativeness of the questionnaire regarding women's knowledge and practice. Factor analysis was also performed for evaluating construct validity of the schedule. Women attending OPD were recruited by systematic random sampling. Women aged 18 years and above were approached after they have completed their medical checkup in the OPD and informed consent was sought for participation in this study. The consenting participants were interviewed confidentially. Female medical social workers from the Department of Community Medicine were present while interviewing the respondents.

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Equal time was spent in interviewing each respondent. Data were recorded in the pretested, structured interview schedule on the spot and later on entered in computer using SPSS 15.[9] Descriptive statistics like mean & standard deviation and Pearson's $\chi 2$ test were used. P value < 0.05 was considered statistically significant. Prior permission from the competent authority was obtained for conducting the study.

RESULT: Total 289 respondents got enrolled in this study and their mean (SD) age was 27.86 (±8.948) years and median per-capita income was Rs. 1250/- per month. Among the study subjects, 42.6% (n = 123) women knew that early exposure to sexual intercourse is a risk factor for causation of cervical cancer, 19.7 % (n = 57) knew later age and 37.7% (n = 109) women had no idea about it. About 72.7 % (n = 210) women knew poor personal hygiene and 1.4% (n = 04) women knew that good personal hygiene is at a risk factor for getting cervical cancer whereas 27.3% (n = 75) women had no idea about it. 26.0% (n = 75) of the study women knew cervical cancer as a familial disease, 48.7% (n = 141) as not and 25.3% (n = 73) women had no idea about it.

Table 1: Socio-demographic profile of the study women.

Variables	Sub groups	Number	Percentage
Literacy	Illiterate	23	8.0
	Primary	175	60.6
	Secondary	68	23.5
	Graduate & above	23	8.0
Occupation	Housewife	242	83.7
	Business	13	4.5
	Service	26	9.0
	Labourer	8	2.8
Religion	Hindu	253	87.5
	Muslim	23	8.0
	Christian	11	3.8
	Buddhist	2	0.6
Marital status	Married	277	96.5
	Unmarried	12	4.2

Table 1 shows that majority (60.6%) of the respondents were primary educated followed by 23.5% primary educated and both illiterate and higher educated group constituted 8% each. Majority (83.7%) of them was housewives, 87.5% were Hindu by religion, and 96.5% were married. Out of the total, 16.3% (n = 47) women knew that vaccine is available for preventing cervical cancer, 25.6% (n = 74) knew no vaccine is available and 58.1% (n = 168) women had no idea about the availability of any vaccine for preventing cervical cancer.

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Table 2: Knowledge of the study women regarding cervical cancer.

Variables	Subgroups	Number	Percentage
Preventability	Preventable	179	61.9
	Not preventable	18	6.2
	No idea	92	31.8
Occurrence among Indian	Common	179	61.94
	Not common	18	6.23
	No idea	92	31.83
Sex partner	Single	7	2.4
	Multiple	171	59.2
	No idea	111	38.4
Source of knowledge	Education and media	85	29.41
	Friends & relatives	65	22.49
	Health workers	47	16.26
	Had no knowledge	92	31.84
Early diagnosis	Possible	119	41.2
	Not possible	31	10.7
	No idea	139	48.1
PAP smear test	Heard	45	15.57
	Not heard	244	84.43
Diagnostic procedure	Biopsy	03	1.0
	No idea	286	99.0
Treatability	Treatable disease	173	59.86
	Not treatable	24	8.3
	Had no knowledge	92	31.84

Table 2 shows that 61.9% of the study women knew that cervical cancer is common among Indian women and it is preventable, 59.2% knew multiple sex partners as a risk factor for it, 29.41% knew about the disease either by studying or from the media and 16.26% knew from health workers. Regarding the possibility of diagnosing cervical cancer at an early stage 41.2% (n = 119) women knew it is possible, 10.7% (n = 31) knew it is not, and 48.1% (n = 139) women had no idea. About 15.57% (n = 45) of the study women have heard about PAP smear test, 1.0% (n = 03) of the study women knew biopsy as the only method for early diagnosis of cervical cancer and the rest had no idea about it and 59.86% (n = 173) women knew cervical cancer as a treatable disease. About 31.5% (n = 91) women knew surgery, 20.1% (n = 58) knew medicines and 2.4% (n = 07) knew radiation as the treatment of choice for cervical cancer; but 46.0% (n = 133) women had no idea about it.

Table 3: Practice of the study women towards prevention of cervical cancer.

Variables	Subgroups	Number	Percentage
PAP smear test	Undergone	30	10.38
	Not undergone	259	89.62
HPV vaccination	Vaccinated	01	0.3
	Not vaccinated	288	99.7

Table 3 shows only 10.38 % (n = 30) of the study women underwent PAP smear test and only 0.3 % (n = 01) were found to be vaccinated against HPV.

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Table 4: Knowledge of the study women regarding frequency, preventability, possibility of early diagnosis, treatability and vaccine by literacy of the study women.

Variables	Subgroups	Literacy		Significance
		Illiterate and Primary educated Number (%)	Secondary educated, graduate and above Number (%)	
Frequency	Very frequent	85 (56.3)	66 (43.7)	$\chi^2 = 20.721$ p = 0.000
	Less frequent	113 (57.0)	25 (27.5)	
Preventability	Preventable	86 (81.9)	67 (18.1)	$\chi^2 = 21.616$ p = 0.000
	Not Preventable	112 (82.6)	24 (17.4)	
Early diagnosis	Possible	89 (59.3)	61 (40.7)	$\chi^2 = 11.311$ p = 0.000
	Not possible	109 (78.4)	30 (21.6)	
Treatability	Treatable	101 (61.6)	63 (38.4)	$\chi^2 = 7.707$ p = 0.005
	Not treatable	97 (77.6)	28 (22.4)	
Vaccine	Available	50 (49.0)	52 (51.0)	$\chi^2 = 26.385$ p = 0.000
	Not available	148 (79.1)	39 (20.9)	

Table 4 shows that knowledge of the study women regarding frequency, preventability, possibility of early diagnosis, treatability and availability of vaccine against cervical cancer differed significantly with their literacy status ($p< 0.05$).

11.85% of the Hindu women (n = 30) underwent PAP smear test for screening cervical cancer. About 9.0 % (n = 26) of the study women underwent PAP smear test in some government hospitals and 1.38 % (n = 04) in some private hospital. Out of those who did not undergo the test, 4.5% (n = 13) of them did not undergo as they did not have any health problem, 3.46% (n = 10) did not undergo as they did not know where to go, 2.42% (n = 7) did not consider it necessary and 89.62% (n = 259) were not aware about the necessity of the test. Lack of medical advice was the commonest reason for not undergoing PAP smear test irrespective of women's literacy status.

Table 5: Practice of undergoing PAP smear test by literacy and occupation of the study women.

Variables	Subgroups	PAP smear test		Significance
		Undergone Number (%)	Not undergone Number (%)	
Literacy	Illiterate and Primary educated	07 (3.53)	191 (96.47)	$\chi^2 = 29.378$ p = 0.000
	Secondary educated and above	23 (25.27)	68 (74.73)	
Occupation	Housewives	22 (9.09)	220 (90.91)	$\chi^2 = 1.876$ p = 0.170
	Business, service & labourer	08 (17.02)	39 (82.98)	

Table 5 shows that significantly higher number of educated women (25.27%, n = 23) underwent PAP smear test ($p < 0.05$); similarly higher number of women (17.02%, n = 08) engaged in

business, service or daily labour also underwent PAP smear test for screening of cervical cancer though it was not significant.

DISCUSSION: The present study has detected the awareness regarding prevention of cervical cancer as 61.9%, whereas V Shah et al, 2012[11] Found it to be 69% and Boris K et al, 2014[10] found it to be 42.4%. These differences may be due to difference in the profile of the study population. In this study 59.2% subjects knew that having multiple sexual partners is a risk factor for developing carcinoma cervix whereas as per V Shah et al, 2012[11] only 11.5% nursing students had the same idea. This may be due to the fact that the student nurses were newly admitted to the course and had limited knowledge. In our study 42.6% of the respondents knew early exposure to sexual intercourse as a risk factor for cervical cancer whereas Sreejata Raychaudhuri, et al, 2012[6] have found it to be 65.6%.

This may be due to the differential literacy rates among the two study populations. This study has revealed that 16.3% of the study subjects were aware about availability of a vaccine for preventing carcinoma cervix similarly Sreejata Raychaudhuri, et al, 2012[6] also found it to be 14.5%. Here only 15.57% of the study population have heard about PAP smear test whereas V Shah et al, 2012[11] have found it to be 88.4% and Shashank Shekhar et al, 2013[2] have found to be 77%; this may be due to the fact that in the 2nd case the study was conducted among nursing personnel who are likely to be more aware about cervical cancer.

Present study has revealed that 10.38 % of the study population have undergone PAP smear test whereas V Shah et al, 2012[11] found it to be 8% and Shashank Shekhar et al, 2013[2] found it to be 7%. Low PAP smear examination rate in these two studies may be due to the fact that the nursing personals were of relatively younger in age. Increasing number of teenage women are getting vaccinated against HPV virus now a days and some countries have already incorporated this vaccination in their national immunization schedule. Women of this area are found to be less aware regarding prevention of cervical cancer. In this study knowledge regarding early detection of cervical cancer, PAP smear test, vaccination against cervical cancer etc. were found to be significantly related to literacy of the study women and it was similar with the findings of Sreejata Raychaudhuri, et al, 2012.[6]

CONCLUSION AND RECOMMENDATION: Despite knowing cervical cancer as common among Indian women knowledge regarding it's early diagnostic methods, preventability and treatability is found to be low among women attending a tertiary clinic of the state. Though educated women had better knowledge regarding prevention of cervical cancer but practices towards early diagnosis and prevention of cervical cancer were not found to be encouraging among them. Regarding the sources of information for cervical cancer, health functionaries played poorer role than media and others. Hence extensive IEC and BCC activities need to be taken up by the health functionaries for making people aware and motivated regarding the screening and early diagnostic procedures for cervical cancer in order to minimize preventable deaths in this community. Further study is required to examine the effect of more number of variables and also the barriers to knowledge and practice regarding prevention of cervical cancer.

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