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Original Research Article

Awareness and practices of cervical cancer screening among women in Rajnandgaon district, central India: health education is the need of the hour

Meena Armo, Vimal Khunte*, Siddhi Sainik, Rohini Kanniga G., Nandini Jatwar

Department of Obstetrics and Gynecology, BRLSABV Memorial Government Medical College Rajnandgaon, Chhattisgarh, India

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***Correspondence:**

Dr. Vimal Khunte,

E-mail: drvimalgy@gmail.com

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ABSTRACT

Background: Cervical cancer is a leading cause of morbidity and mortality among rural women in India. Early screening has been shown to be the most effective measure to prevent the disease. However, lack of awareness, lack of infrastructure, social stigma and fear are barriers to cervical cancer screening. The study was undertaken to assess the knowledge and practice among rural women regarding cervical cancer and screening tests with the aim of helping health professionals to revise policies and practices.

Methods: It was a cross-sectional questionnaire-based study, conducted from January 2018 to September 2018 in the Department of Obstetrics and Gynecology at Government Medical College Rajnandgaon. A tertiary care hospital located in the southwest Chhattisgarh. A total of 506 women aged 21-65 years were included and assessed. Qualitative data were presented as frequencies and percentages by using SPSS version 21.

Results: Of the total 506 respondents, 15.41 % had heard of cervical cancer, while 8.1% about cervical cancer screening. Unfortunately, only 1.2% women were ever been screened by Pap test. Although importance of screening had been thoroughly explained to the respondents, despite the fact only 57.1% showed willingness to undergo cervical cancer screening in the future. However, 63.9% women having gynecological complains were significantly associated with better attitude towards future cervical cancer screening than women without having gynaecological complains.

Conclusions: Awareness and practice of the screening for cervical cancer was very poor in the rural population as well as in health care providers. Hence intensive health education is the need of the hour to change the scenario.

Keywords: Awareness, Cervical cancer, Practice, Screening tests

INTRODUCTION

Worldwide cervical cancer is the fourth most common cancer with an estimated 569847 new cases and 311365 deaths in 2018 (Source: GLOBOCAN 2018). It is a major cause of morbidity and mortality in resource-poor settings where access to cervical cancer screening and vaccination is limited.¹ India accounts for almost one-fourth of cervical cancer incidence and deaths with an

estimated 96922 new cases and 60078 deaths in 2018 (Source: GLOBOCAN 2018). Various guidelines on screening and treatment of precursor lesions in all resource settings have been published by the World Health Organization (WHO, 2014), Ministry of Health and Family Welfare (MOHFW, 2016), the American Society of Clinical Oncology (ASCO, 2016) and the Federation of Obstetrics and Gynaecology Society of India (FOGSI GCPR 2018).²⁻⁵ However, there is no

countrywide government-sponsored public health policy on prevention of cervical cancer either by screening or vaccination or both.

Moreover, rural and older women are least likely to get screened and treated, therefore more likely to develop invasive cancer and die from it.^{6,7} Furthermore, there is little information available on preventive behaviours against cervical cancer among rural women in Chhattisgarh.

Therefore, this study was undertaken to assess the knowledge and practice among rural women regarding cervical cancer and screening tests with the aim of helping health professionals to revise policies and practices to change the scenario.

METHODS

The study group included 506 women between 21-65 years of age group, who underwent HPV DNA testing. It was a prospective cross sectional study, conducted between January 2018 to September 2018 in the Department of Obstetrics and Gynecology, at Government Medical College Hospital Rajnandgaon, Chhattisgarh which is the only tertiary care hospital (upgraded district hospital) in the whole district.

Inclusion criteria

- Women ≥ 21 years who presented with complains of white discharge per vagina, irregular menstrual cycle, post-coital bleeding, h/o sexually transmitted diseases and h/o multiple sexual partners. Women ≥ 30 years, who attended gynecological OPD with complains, relatives of the admitted patients, attendants, Mitanins (ASHAs) and nurses, regardless of gynecological complains.

Exclusion criteria

- Unmarried females,
- Women < 30 years with no gynecological complains
- Treated cases of carcinoma
- Hysterectomized women.

Approval of institutional ethical committee was obtained. Informed written consent was taken from all respondents. Predesigned questionnaires were asked in detail through face-to-face interviews before collecting HPV samples, so that women's knowledge and attitude towards cervical cancer prevention could be assessed and scored.

The questions asked were based on review of literature, previously established facts about cervical cancer and health facilities available in the district.

All patients were thoroughly explained either individually or in a group by resident doctors or consultants regarding

the need of screening, details about the procedure and further management.

During the study, it was ensured that if the participants needed further treatment, it was provided and when required they were referred to a higher center. Finally, all the parameters were separately analyzed and discussed. Qualitative data were presented as frequencies and percentages by using SPSS, version 21.

RESULTS

In the study, age range of the respondents was 21 to 65 years. Majority (63.6%) were between 31-50 years of age group. Most of them (90.9%) were married and 73.7% were having parity ≥ 3 .

Majority of them (54.3%) were from rural background. Of the total, 64% were literate, while 35.9% were illiterate, however only 1.8% were graduates (Table 1).

Table 1: Socio-demographic profile (N=506).

Variable	Frequency	Percentage
Age		
≤ 30	95	18.7
31-40	163	32.2
41-50	159	31.4
51-60	65	12.8
> 60	24	4.7
Marital status		
Married	460	90.9
Separated	9	1.8
Widow	37	7.3
Residence		
Rural	275	54.3
Sub-urban	43	8.5
Urban	188	37.2
Education		
Illiterate	182	35.9
Primary	143	28.2
Secondary	85	16.8
Higher secondary	87	17.2
Graduate	9	1.8

40.5% respondents who attended OPD with gynaecological complains were symptomatic while rest of the 59.5% who were relatives of admitted patients, attendants, mitanins and nurses were asymptomatic. The mean age at marriage was 18.87 ± 5.86 years and the mean duration of marriage was 22.75 ± 12.10 years. Of the total, 32.8% had reached menopause while 35% had tubal sterilization (tubectomy) in the past. Although majority of the women (97.43%) were non-smoker, however 74.7% were addicted to "Gudakhu" which is tobacco containing toothpaste, moreover only 8.3% were using sanitary pads during the study period (Table 2). Though 57.7% respondents had heard about cancer, 15.41% about cervical cancer and 8.1% about cervical cancer screening.

Ironically, of total 506 respondents, only 1.2% had previously tested by Pap test. None of them had heard about HPV infection, testing and vaccination.

The main source of information about cervical cancer screening were health professionals (5.53%) and friends or relatives (1.97%). The reason behind never been screened were, no knowledge in 58.4%, no symptoms in 30.8% and not advised in 10.8% respondents.

Despite repeated counselling only 57.1% of respondents showed positive attitude towards future screening while 42.9% were reluctant.

Table 2: Behavioral and reproductive characteristics of study subjects (N=506).

Variable	Frequency	Percentage
Gynecological complains		
No	301	59.5
Yes	205	40.5
Menopause		
No	340	67.1
Yes	166	32.8
Age of marriage		
<11	8	1.5
11-14.5	91	17.9
15-18	201	39.7
>18	206	40.7
Duration of marriage		
1-10 years	126	24.9
11-20 years	144	28.5
21-30 years	114	22.5
>30 years	99	19.6
Parity		
0	42	8.3
1	43	8.5
2	142	28.0
3	161	31.8
≥4	118	23.3
History of sterilization/contraception		
Tubectomy done	177	35
Condom	93	18.3
Nothing	236	46.6
Use of sanitary pad		
No	464	91.7
Yes	42	8.3
Smoking		
No	493	97.4
Yes	13	2.5
Gudakhu (tobacco-containing toothpaste)		
No	128	25.2
Yes	378	74.7

However, attitude was significantly better among women (63.9%) who presented with gynaecological complains compared to 52.5% women having no gynaecological complains (Table 3 and Table 4).

Table 3: Awareness, practice and attitude of women regarding cervical cancer and cervical cancer screening (N=506).

Variable	Frequency	Percent
Have you heard about cancer?		
No	214	42.3
Yes	292	57.7
Have you heard about cervical cancer?		
No	428	84.5
Yes	78	15.4
Have you heard about screening for cervical cancer?		
No	465	91.9
Yes	41	8.1
Where did you hear about screening (N=41)?		
Health professionals	28	5.5
Friends/Relatives	10	1.9
Media /News papers	3	0.5
Have you heard about Pap test?		
No	496	98
Yes	10	2
Have you been screened for cervical cancer?		
No	500	98.8
Yes	6	1.2
If you have not been screened, what was the reason (N=500)?		
No knowledge	296	58.4
No symptoms	156	30.8
Not advised	54	10.8
Attitude towards future screening		
Negative	217	42.9
Positive	289	57.1

Table 4: Association between attitude towards screening and presenting complains (N=506).

Attitude towards screening	Complains		Total	P value
	No (%)	Yes (%)		
Negative (No.)	143	74	217	0.011 Significant
%	47.5	36.1	42.9	
Positive (No.)	158	131	289	
%	52.5	63.9	57.1	
Total (No.)	301	205	506	
%	100	100	100	

DISCUSSION

Though Chhattisgarh is a fast-developing tribal state, however 77% population still live in village. It is one of the eight high focus states for family planning with high TFR and high MMR. Rajnandgaon is one of the 27 districts having highest female literacy rate in the state. There are 316 sub centres, 47 Primary Health Centers, 10 Community Health Centers, 1 sub divisional hospital and 1 district hospital. Since the district hospital is upgraded Government Medical College hospital, hence this is the only tertiary care hospital and centre which provides regular facility for cervical cancer screening in the

district. There is severe lack of infrastructure and manpower, while ANM, FHW, Pharmacist and Lab technicians are in surplus number.⁸ The only gynecologist of the district is now working with the medical college. Mitanin or ASHA (Accredited social health activist) workers form the back bone of the rural health system. They provide preventive, promotive and curative health facilities in the community. In the majority of cases, Mitanin (ASHA) whom women had first contacted had a greater influence on the selection of the gynaecologist as well as hospital. People living below poverty line are mainly depending on National Health Insurance Program (Rashtriya Swasthya Bima Yojana [RSBY]) for free medical as well as surgical services. Rural women usually prefer hysterectomy over conservative treatment for gynaecological problems.⁹ In this study, level of knowledge of cancer, cancer cervix and its screening was very poor especially among women who were asymptomatic. Of the total, only 57.7% had heard about cancer while 15.41 % had heard about cervical cancer. Similar level of awareness was seen in studies done in Kolkata, but this was in contrast with the studies done in southern states of India, Nepal, Bangladesh and China where the awareness level was much more better. This could be probably explained by the differences in the education status, social behavior, media exposure and health facilities available among the study population.¹⁰⁻¹⁷

When asked about cervical cancer screening, only 8.1% were aware of Pap smear test. This was slightly better than the awareness about screening reported (6.5%) by study done in Lucknow.¹⁸ This seems to be mainly due to high literacy rate in our group. However, uptake of Pap smear test was very low (1.2%), this was lesser than uptake of test reported by other studies.^{11,18} Moreover community-based studies have also reported that 2%-6.9% of rural women got tested in India.^{13,19} Furthermore there is a gap between awareness and practice. This could be explained by the fact that rural people do not usually undergo health checkups until they experience major health problems. In addition, healthcare resources are limited in remote and tribal areas. On being asked on why they had not undergone screening, majority stated lack of awareness and no symptoms. Similar findings were reported in other studies where most of the women did not appreciate the importance of preventive health check up in the absence of symptoms. Some other reported obstacles to screening included being scared of the test, anxiety about the possibility of being diagnosed with cervical cancer, procedure being painful and embarrassing etc.^{10,11,20-22} Majority of the respondents mentioned health care professionals, family /friends as a source of information in the study. This is in agreement with a study done in Kolkata that shows 40% of the awareness comes from health care professional. This shows gap in the role of health care provider in disseminating information regarding cervical cancer screening and uptake of tests.²⁰ This also explains that neither the social media is being utilized by the health system for spreading awareness nor by the rural

population for getting health information.¹³ Knowledge about different risk factors, HPV infection, testing and vaccination were nil in the study population. Although risk factors for cervical cancer identified were marriage at younger age, large no of childbirth, use of cloth which was reused after washing. This was similar as reported by studies done in Kolkata and North Bengal.^{21,23} In the study, 97.4% of the women had never smoked but 74.7% had history of addiction to "Gudakhu" (tobacco containing toothpaste routinely used by rural women of state) for more than 10 years.

Although the association between "Gudakhu" or SLT (smokeless tobacco) and pre-malignant or malignant cervical lesion have not been adequately reported. However a study done in Noida concluded that women consuming SLT are at high risk of developing cervical premalignant and malignant lesions compared with the non-SLT user.²³ Though the importance of screening had been thoroughly and repeatedly explained before collection of sample for HPV testing, despite the fact only 57.1% showed positive attitude towards cervical cancer screening in the future. However, attitude was significantly better among women (63.9%) who presented with gynecological complains compared to 52.5% women having no gynecological complains. This was in contrast to the study done in Theni, Tamil Nadu where 90% women expressed positive attitude towards cervical cancer screening.¹⁴ Poor attitude in present study could be mainly due to higher percentage (59.4%) of asymptomatic and postmenopausal (32.8%) respondents in the study population hence they perceived themselves as healthy. Furthermore, lack of knowledge among rural population and existing health care providers/Mitanins (ASHA), lack of trained personnel's and infrastructure necessary to perform cancer screening tests as well as minimally invasive procedures in government may contribute further.²⁴

CONCLUSION

Knowledge and practice of the screening for cervical cancer was very poor in rural population as well as in health providers in the district. Since the camp was organized for the first time, none of the woman had heard earlier about the preventive measures of cervical cancer. Large number of women came to know for the first-time what Pap and HPV test were. Number of risk factors for cervical cancer were identified in the study. However, it was more difficult to counsel and educate asymptomatic older population than symptomatic younger ones which proves the proverb that you can't fill a cup that's already full.

Hence, intensive health education is the need of the hour to dispel negative beliefs and perception. Finally strengthening of existing health system, qualitative research, clinical audits in facilities and monitoring by the government is also needed.

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