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Awareness, Attitude And Practice Towards Cancer Cervix Prevention Among Women In Western Rajasthan: A Community-Based Study

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Abstract

Introduction- Cervical cancer is the most common cancer among Indian women of reproductive age. Unfortunately, despite the evidence of methods for prevention, most of the women remain unscreened. The reported barriers to screening include unawareness of risk factors, symptoms and prevention; stigma and misconceptions about gynecological diseases and lack of national cervical cancer screening guidelines and policies.

Aim- To assess the level of awareness, attitude, and practice related to cervical cancer and its screening among women.

Methodology- Community based cross sectional study conducted on 400 females in western Rajasthan, India, during a period of April 2024 to March 2025. The questionnaire was comprised of four sections to gather information regarding the sociodemographic characteristics of the participants, knowledge, attitude, and practice regarding cervical cancer and its screening.

Results- In present study 63.8% of study subjects have moderate to good awareness and 36.4% have poor awareness. 63.5% of study subjects have favourable attitude towards cervical cancer and only 27.3% have undergone screening for cervical cancer.

Conclusion- This study shows that despite the fact that women had suboptimal level of knowledge regarding cervical cancer, their attitude is favorable for screening. However, uptake is low in actual practice. Strategic communication targeting eligible women may increase the uptake of screening.

Keywords: Awareness, Cervical cancer, Attitude, Practice

Introduction

Cervical cancer is the 2nd most common cancer among Indian women aged 15-44 years with an estimate of 123,000 incident cases and 67,000 deaths in 2013. In the light of India's rapidly growing population, the overall burden of incidence and mortality of cervical cancer in India is projected to increase by 68 and 78%, respectively, by the year 2030 [1].

The average 5-years survival rate is 48.7%. Most cases of cervical cancer in India are diagnosed at later and more serious stages which will reduce the survival rate of women with cervical cancer. The prime reason for late stage diagnosis of disease is a lack of awareness about screening and preventive methods of cervical cancer. Screening for cervical cancer is essential as the women often do not experience symptoms until the disease has advanced [2]. The most common

symptoms present in cervical cancer are bleeding between periods, persistent back pain, pelvic pain, bleeding after intercourse, urinary urgency, and unexplained weight loss. Infection with human papillomavirus (HPV), particularly HPV 16 and 18 strains causes 75% of cervical cancers globally [3]. Other risk factors include having multiple sexual partners, early age of sexual intercourse, tobacco consumption, prolonged use of oral contraceptive pills, increased parity, and early age of giving birth[4].

With access to HPV vaccine and early detection, most cases of cervical cancer are preventable. Pap smear test has been credited with dramatically reducing the number of cases of cervical cancer in developed countries [5]. Unfortunately, despite the availability of methods for prevention, >95% of women in India have never been screened for cervical cancer[6]. There are several barriers to cervical cancer screening uptake for women in low resource areas like India that include- low level of awareness and knowledge of risk factors and early signs and symptoms of disease, prevention services, stigma and misconceptions about female cancer and gynecological diseases, socioeconomic limitations, and an overall lack of national cervical cancer screening guidelines and policies [7,8].

There is a lack of information regarding awareness, attitude, and practice toward cervical cancer and its screening, hence this study was conducted. Studies show that having sufficient knowledge about cervical cancer and screening programmes increase acceptance, and uptake of available screening services [9, 10]. Although awareness plays a critical role in influencing a woman's decision to screen, some women, nevertheless do not undergo screening. For example, studies conducted among health workers, who are expected to be knowledgeable, have also found low screening uptake rates [11, 12]. Therefore, women's attitudes towards cervical cancer and screening are equally important. Attitude regarding perceived risk, screening methods used, perceived pain during screening have been suggested to influence decisions to undergo the procedure [13, 14]. Data on the knowledge and attitudes of women towards cervical cancer prevention in western Rajasthan is limited. This study aim to determine women's knowledge and attitudes towards cervical cancer prevention as determinants for utilization of preventive services and to assess the level of awareness, attitude, and practice toward cervical cancer and its screening among women.

Aim and Objective-To assess the level of awareness, attitude, and practice related to cervical cancer and its screening among women.

Methodology-Community based cross sectional study conducted on 400 females in western Rajasthan, India, during a period of April 2024 to March 2025. The questionnaire was comprised of four sections to gather information regarding the sociodemographic characteristics of the participants, knowledge, attitude, and practice regarding cervical cancer and its screening.

Women who aged 18 years or above and willing to participate in the study were included in the study. Women who are mentally and critically ill and diagnosed with cervical cancer are excluded from the study. All women who met study criteria are included and interviewed using prevalidated questionnaire about cervical cancer, screening, and prevention.

The sociodemographic characteristics included age, residence, religion, marital status, parity, educational status, occupation, and per capita family income. The awareness was assessed using a 30 points scale which had dichotomous response, that is, correct and incorrect. Each correct response was scored as 1 and incorrect as 0. A score 50% (≥15 correct responses) was considered as optimal.

Attitude was assessed by 7 statements regarding cervical cancer screening and risk factors responses to which were categorized as 3-point scale Disagree, Neutral, and Agree. Attitude was considered as favorable for screening if four or more "Agree" responses were obtained.

Practice was assessed by using seven questions. Each question had a dichotomous response, that is, correct and incorrect. Each correct response was scored as 1 and incorrect as 0. A score 50% (≥4 correct responses) was considered as good practice.

Results

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Table 1: Socio-demographic Distribution of the Study group

Parameter		No.	%
Age Category	**<=25 Years**	36	9.0%
	26-35 Years	148	37.0%
	36-45 Years	84	21.0%
	46-55 Years	60	15.0%
	56-65 Years	44	11.0%
	>65 Years	28	7.0%
	Total	400	100.0%
Socio-Economic Status	**Lower**	109	27.3%
	Lower Middle	146	36.5%
	Upper Lower	36	9.0%
	Upper Middle	73	18.3%
	Upper Class	36	9.0%
	Total	400	100.0%
Religion	**Hindu**	300	75%
	Muslim	70	17.5%
	Christian	16	4%
	Other	14	3.5%
	Total	400	100.0%
Residence	**Rural**	238	59.5%
	Urban	162	40.5%
	Total	400	100.0%

Above table shows that the maximum number of subjects belonged to age group of 26-35 years of Lower Middle SES of Hindu religion belonging to rural background.

Table 2: Awareness about Cervical Cancer of the Study group

Parameter	Awareness Status	Total	Percentage
Awareness of symptoms of Cervical Cancer - Bleeding in between periods	**No**	182	45.5%
	Yes	218	54.5%
	Total	400	100.0%
Awareness of symptoms of Cervical Cancer - Foul smell discharge	**No**	292	73.0%
	Yes	108	27.0%

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	Total	400	100.0%
Awareness of symptoms of Cervical Cancer – Pain or Bleeding after intercourse in women of any age	**No**	255	63.7%
	Yes	145	36.3%
	Total	400	100.0%
Awareness of symptoms of Cervical Cancer - Postmenopausal bleeding	**No**	364	91.0%
	Yes	36	9.0%
	Total	400	100.0%
Awareness of symptoms of Cervical Cancer – Periods heavier and of longer duration than usual	**No**	328	82.0%
	Yes	72	18.0%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Having multiple sexual partners	**No**	328	82.0%
	Yes	72	18.0%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Early sexual intercourse	**No**	327	81.8%
	Yes	73	18.3%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Acquiring HPV	**No**	327	81.8%
	Yes	73	18.3%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Cigarette smoking	**No**	328	82.0%
	Yes	72	18.0%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Parity and young age at first birth	**No**	364	91.0%
	Yes	36	9.0%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Use of oral contraceptive over 5 years	**No**	364	91.0%
	Yes	36	9.0%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - History of sexually transmitted disease	**No**	291	72.8%
	Yes	109	27.3%
	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Poor menstrual hygiene	**No**	328	82.0%
	Yes	72	18.0%

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	Total	400	100.0%
Awareness of risk factors of Cervical Cancer - Multiple pregnancies (>5)	**No**	328	82.0%
	Yes	72	18.0%
	Total	400	100.0%
Awareness of preventive measures of Cervical Cancer - Avoid multiple sexual partners	**No**	255	63.7%
	Yes	145	36.3%
	Total	400	100.0%
Awareness of preventive measures of Cervical Cancer - Avoid early sexual intercourse	**No**	255	63.7%
	Yes	145	36.3%
	Total	400	100.0%
Awareness of preventive measures of Cervical Cancer - Vaccination against HPV	**No**	291	72.8%
	Yes	109	27.3%
	Total	400	100.0%
Awareness of preventive measures of Cervical Cancer - Quit smoking	**No**	255	63.7%
	Yes	145	36.3%
	Total	400	100.0%
Awareness of preventive measures of Cervical Cancer - Avoid birth at young age	**No**	255	63.7%
	Yes	145	36.3%
	Total	400	100.0%
Awareness of preventive measures of Cervical Cancer - Avoid usage of oral contraceptives	**No**	327	81.8%
	Yes	73	18.3%
	Total	400	100.0%
Awareness about different treatment available to treat Cervical Cancer	**No awareness**	146	36.5%
	Drug treatment	109	27.3%
	Radiotherapy	72	18.0%
	Surgery	73	18.3%
	Total	400	100.0%
Awareness about screening tests of Cervical Cancer	**No awareness**	219	54.8%
	Pap smear	109	27.3%
	VIA	36	9.0%
	VILI	36	9.0%
	Total	400	100.0%
	No awareness	193	48.3%

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Awareness about persons who must undergo screening tests	**Women age of 30 years and above**	118	29.5%
	Women having multiple sex partners	89	22.2%
	Total	400	100.0%
Awareness about location of screening	**No**	254	63.5%
	Yes	146	36.5%
	Total	400	100.0%
Awareness about screening frequency in Cervical Cancer (once every 3 years)	**No**	219	54.8%
	Yes	181	45.3%
	Total	400	100.0%
Awareness about HPV Vaccination	**No**	183	45.8%
	Yes	217	54.3%
	Total	400	100.0%

Table 3: Attitude about Cervical Cancer of the Study group

Parameter	Attitude Status	Total	Percentage
Attitude – Intermenstrual bleeding should be considered as normal	**Agree**	109	27.2%
	Disagree	200	50.0%
	Neutral	91	22.8%
	Total	400	100.0%
Attitude – A woman should bear her first child by age of 20 years	**Agree**	109	27.2%
	Disagree	180	45.0%
	Neutral	111	27.8%
	Total	400	100.0%
Attitude – Women should bear 5 or more children in order to increase family strength	**Agree**	71	17.8%
	Disagree	200	50.0%
	Neutral	129	32.2%
	Total	400	100.0%
Attitude – Women with multiple sexual partners are more predisposed to cervical cancer	**Agree**	109	27.2%
	Disagree	91	22.8%
	Neutral	200	50%

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	Total	400	100.0%
Attitude – Women should get an internal examination done by a Gynaecologist once in every 3 years	**Agree**	221	55.3%
	Disagree	109	27.2%
	Neutral	70	17.5%
	Total	400	100.0%
Attitude – If a lady in neighbourhood is suffering from cervical cancer you should keep distance from her	**Agree**	91	22.8%
	Disagree	159	39.8%
	Neutral	150	37.4%
	Total	400	100.0%
Attitude – If you were offered a free cervical cancer screening would you be willing to be screened	**Agree**	330	82.5%
	Disagree	50	12.5%
	Neutral	20	5%
	Total	400	100.0%

Table 4: Practice about Cervical Cancer of the Study group

Parameter	Practice Status	Total	Percentage
Practice towards cervical cancer screening - Have gone for screening of cervical cancer	**No**	254	63.5%
	Yes	146	36.5%
	Total	400	100.0%
Practice towards cervical cancer screening - Vaccinated against HPV	**No**	254	63.5%
	Yes	146	36.5%
	Total	400	100.0%
Practice towards cervical cancer screening - Smoking status	**No**	291	72.8%
	Yes	109	27.3%
	Total	400	100.0%
Practice towards cervical cancer screening - Hormonal OCP	**No**	291	72.8%
	Yes	109	27.3%
	Total	400	100.0%
Practice towards cervical cancer screening - Delivery of first child at early age	**No**	219	54.8%
	Yes	181	45.3%
	Total	400	100.0%
Practice -More than one sex partner	**No**	380	95.0%
	Yes	20	5.0%

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	Total	380	100.0%
Practice – First Intercourse in early age	**No**	360	90.0%
	Yes	40	10.0%
	Total	400	100.0%

Discussion

The success and benefits of screening at a national level as a public health program to control and prevent cervical cancer depend to a great extent on the level of awareness of the potential beneficiaries. There is scanty information regarding knowledge, attitude, and practices related to cervical cancer and its screening. The outcome measurement of this study may provide inputs toward designing suitable information, education, and communication strategies to address various health issues of women of reproductive age group.

In present study maximum number of subjects belonged to age group of 26-35 years. Similarly in the study conducted by Sakrawal,et al.(2023) and Yadav S.K. et al (2023) maximum number of subjects belonged to age group of 26-35 years which is comparable with results of present study[15, 16]. However in the study of Narayana, et al.(2018) maximum number of subjects belonged to age group of 30-39 years [17].

In present study on basis of socio-economic status maximum number of subjects belonged to Lower Middle socio-economic status. Similarly in the study conducted by Sakrawal,et al.(2023) and Yadav S.K. et al (2023) maximum number of subjects belonged to Lower Middle SES which is comparable with results of present study [15, 16].

In present study on basis of religion maximum number of subjects belonged to Hindu religion. Similarly in the study conducted by Sakrawal,et al.(2023) and Yadav S.K. et al (2023) maximum number of subjects belonged to Hindu religion which is comparable with results of present study [15, 16].

In present study on basis of residential status maximum number of subjects belonged to rural residential status. Similarly in the study conducted by Sakrawal,et al.(2023) and Yadav S.K. et al (2023) maximum number of subjects belonged to rural residential status which is comparable with results of present study [15, 16].

The study found that 18% of study subjects never heard about cervical cancer which is in agreement with results of studies conducted in developing and underdeveloped countries by., Anorlu et al. [18, 19] which show that more than three-quarters of population had heard about cervical cancer. In present study 63.8% of study subjects have moderate to good awareness and 36.4% have poor awareness. 63.5% of study subjects have favourable attitude towards cervical cancer and only 27.3% have undergone screening for cervical cancer. In the study conducted by Narayana, et al.(2018) 74.4 % of study subjects have moderate to good knowledge and 36.4% have poor knowledge. 62.5% of study subjects have favourable attitude towards cervical cancer and only 13.3% have undergone screening for cervical cancer which is comparable with results of present study [17].

The study found that more than half of proportion of women are aware of symptoms, risk factors, and preventive measures for cervical cancer. The lack of awareness is mainly due to lack of population-based screening programs, inefficient mass media campaigns, and cultural barriers wherein women in India feel shy to discuss the diseases affecting the sexual organs.This is consistent with findings from a similar study conducted in Northern Uganda by Mukama et al.[20] Still there is a lack of awareness about cervical cancer in women residing at rural area, where there is a need to conduct campaigns to improve their knowledge regarding symptoms, risk factors, and preventive measures. Women who are aware about cervical cancer they are more likely to take up measures of prevention by seeking medical attention and early screening [21].

Most of the women showed positive attitude toward cervical cancer. Women who are aware of symptoms, risk factors, and preventive measures showed positive attitude toward cervical cancer screening. Early screening and HPV vaccination will helpful in

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prevention of cervical cancer. Some studies report that even providing of screening opportunities to women may not be utilized well due to some barriers such as fear of positive cervical cancer diagnosis, fear of cervical screening, and vaginal examination. [22] Continuous conducting of cervical cancer awareness program will bring change in the attitude and perception of women toward cervical cancer screening.

The study findings show that more than half of the percentage of respondents are having awareness about cervical cancer, screening, and preventive measures. Most of the women showed positive attitude toward cervical cancer screening, but still there is a gap between perception and practice. In this hospital–based, cross-sectional survey, prevalence of screening for cervical cancer was extremely low at 5.4%; it is close with the 5-year screening prevalence estimated for developing countries by the WHO (5%).[23]

Conclusion- The study has shown that despite the fact that women had suboptimal level of awareness regarding cervical cancer, their attitude is favourable for screening. However practice measures for cervical cancer screening is low that is there exists awareness, attitude and practice gap. Therefore to address the problem strategic communication targeting eligible women, universal free availability of screening facilities in public health facilities should be initiated to increase the uptake of screening.

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