

# Knowledge Regarding Cervical Cancer among Married Women in Rural Telangana: A Cross Sectional Study

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## ABSTRACT

**Background:** Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. Approximately 90% of deaths from cervical cancer occurred globally. Cervical cancer is the second most common cancer among Indian women

**Methods:** A cross-sectional study was conducted among 250 women with a pre-tested, semi structured questionnaire in order to assess their knowledge regarding Cervical Cancer. Data collected was analysed using SPSS software.

**Results:** 77.6% of the women heard about cervical cancer. Women are less aware of the other risk factors of cervical cancer like Multiparity (6.8%), Early marriage (4.8%), Smoking, alcohol (4.4%). Most common source of information was Doctor/Health care workers (75.8%)

**Conclusions:** Most of the women participated in our study have inadequate knowledge and awareness regarding cervical cancer.

**Keywords:** Cervical cancer, HPV, Smoking, Women

## INTRODUCTION

Non communicable diseases are ruling the world today with highest morbidity and mortality rates and cancer is one among them. Cervical cancer is a malignant neoplasm arising from cells originating in cervix uteri which in the early stages does not cause noticeable symptoms

and may be completely asymptomatic.<sup>1</sup> Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. Approximately 90% of deaths from cervical cancer occurred in low and middle-income countries.<sup>2</sup> Cervical cancer is the second most common cancer among Indian women. Every year about 96,922 new cases of cervical cancer detected in India and 60,078 deaths were reported due to cervical cancer.<sup>3</sup> Unfortunately, most women in India are not aware about the screening of cervical cancer which can be preventable and treatable. In view of magnitude of the problem, India has launched National Cancer Control Programme in 1975-76, which is now integrated with National Programme on Prevention and Control of Diabetes, Cardiovascular Disease and Stroke (NPCDCS). The services provided under this programme are health education, early detection and diagnosis, strengthening of existing institutions for palliative care.<sup>2</sup> WHO urged the countries to lead the way towards elimination of cervical cancer by increasing coverage of human papilloma virus (HPV) vaccination, screening coverage with HPV testing, appropriate management of women who have screened positive and reduce mortality rates.<sup>4</sup> Despite all these programmes, Cervical cancer still remains a public health concern and a leading cause of cancer deaths in developing

countries. Awareness about cervical cancer screening can improve women's approach to increased rate of early diagnosis and treatment of cervical cancer which can further reduce the morbidity and mortality. With this background this study was taken up to assess the knowledge of women regarding cervical cancer.

## METHODS

**Study Design:** Cross Sectional Study.

**Study Period:** May, 2019 to July, 2019.

**Study Setting:** 4 randomly selected villages out of 11 villages attached to rural health centre of a medical college in Telangana state.

**Sample size:** 250 by using formula  $Z^2pq/l^2$ , where  $Z=1.96$ ,  $p=79.6\%$  based on previous study,<sup>5</sup>  $l = 5\%$ .

**Study Subjects:** Married Women of aged 20 – 60 years residing in the study area for the last one year.

**Sampling Method:** Simple random sampling method was followed to select villages and based on proportionate sampling method, it was decided to collect data of 78 subjects, 56 subjects, 52 subjects and 64 subjects from 4 villages. Houses were selected by systematic random sampling method. After visiting the selected house, elder eligible subject among the available was included in the study.

**Study Tool:** A semi-structured questionnaire was prepared and suitable modifications were made after administering in a pilot study. The questionnaire consists of the demographic information and a series of questions to assess the knowledge, Practice and source of information regarding breast cancer

**Method of Data Collection:** Data was collected by face to face interview method after obtaining consent. The importance of this study was explained and ensured that confidentiality of the participant's responses.

**Statistical Analysis:** Data was analysed using Microsoft Excel and SPSS Statistical Package version 22. Data was expressed in proportions with 95% confidence interval (CI). Pearson's chi-square test was applied as test of significance considering  $P < 0.05$  as statistically significant.

## RESULTS

Majority of study participants are between 40-50 years of age (38.8%), Illiterates (51.2%), Home maker (54.8%) and Below poverty line (59.2%). (Table 1)

77.6% of the women heard about cervical cancer. Family history of cervical cancer (63.6%), Poor hygiene (59.2%), HPV Infection (47.2), multiple sexual partners (27.6%) were known by most of the women. More than half of the women identified vaginal bleeding/discharge (69.2%), lower abdominal pain (67.2%), post-menopausal bleeding (59.6%) as symptoms of cervical cancer. (Table 2)

The association between education status and knowledge about prevention of cervical cancer, awareness of HPV and Pap smear was found to be statistically significant ( $p < 0.05$ ).

(Table 3)

Most common source of information was found to be doctor/health care workers (75.8%) followed by relatives or friends (71.6%), newspaper, magazines (19.1%) and internet (10.8%). (Table 4)

**Table: 1** Socio demographic profile of study participants (n=250)

Age	Frequency (%)
20 - 30	27 (10.8)
30 - 40	90 (36)
40 - 50	97 (38.8)
50 - 60	36 (14.4)
Education	Frequency (%)
Illiterate	128 (51.2)
School	95 (38)
College	27 (10.8)
Working status	Frequency (%)
Home maker	137 (54.8)
Student	10 (4)
Working women	103 (41.2)
Socio economic status	Frequency (%)
Above poverty line	102 (40.8)
Below poverty line	148 (59.2)

**Table: 2 Knowledge about preventive aspects, risk factors and symptoms of cervical cancer among study participants (n=250)**

Preventive aspects of Cervical cancer	Total Subjects answered Yes (%)	95% CI
Heard about cervical cancer	194 (77.6)	71.9, 82.6
Cervical cancer can be prevented	28 (11.2)	7.6, 15.8
Heard about HPV Vaccine	6 (2.4)	0.9, 5.2
Heard about pap smear	93 (37.2)	31.2, 43.5
Risk factor	Total Subjects answered Yes (%)	95% CI
HPV Infection	118 (47.2)	40.9, 53.6
Poor hygiene	148 (59.2)	52.8, 65.4
Multiparity	17 (6.8)	4, 10.7
Family history of cervical cancer	159 (63.6)	57.3, 69.6
Multiple sexual partners	69 (27.6)	22.2, 33.6
Early marriage	12 (4.8)	2.5, 8.2
Smoking, alcohol	11 (4.4)	2.2, 7.7
Symptom	Total Subjects answered Yes (%)	95% CI
Vaginal bleeding/discharge	173 (69.2)	63.1, 74.9
Post coital bleeding	10 (4)	1.9, 7.2
Lower Abdominal pain	168 (67.2)	61, 73
Post-menopausal bleeding	149 (59.6)	53.2, 65.7
Inter menstrual bleeding	64 (25.6)	20.3, 31.5
Urinary symptoms	19 (7.6)	4.6, 11.6

**Table: 3 Association between education of the subjects and knowledge about Cervical cancer (n=250)**

Question	Illiterates (%) (n=128)	School (%) (n=95)	College (%) (n=27)	P value
Heard about cervical cancer	99 (77.3)	74 (77.9)	21 (77.8)	0.99
Cervical cancer can be prevented	4 (3.1)	7 (7.4)	17 (62.9)	0.01
Heard about HPV Vaccine	1 (0.8)	1 (1.1)	4 (14.8)	0.01
Heard about pap smear	34 (26.6)	39 (41.1)	20 (74.1)	0.01

**Table:4 Source of information (n=194)**

Source of information	Frequency (%)
Television, Radio	12 (6.2)
Newspaper, Magazines	37 (19.1)
Relatives or friends	139 (71.6)
Internet	21 (10.8)
Doctor/Health care workers	147 (75.8)

## DISCUSSION

In present study, majority of study participants are between 40 – 50 years of age (38.8%), Illiterates (51.2%), Home maker (54.8%) and Below poverty line (59.2%). In present study, about 77.6% of the women heard about cervical cancer (CC) similar to findings of Kar M et al study where 70.7% of women heard about cervical cancer.<sup>6</sup> In a study conducted by Aweke YH et al., about 35.8% of the women were not aware of CC.<sup>7</sup> Only 11.2% of the women in present study knew that cervical cancer can be prevented contrary to Krishnaveni K et al study where 60.2% of study subjects answered that cervical cancer can be prevented.<sup>8</sup> When asked about HPV vaccine, only 2.4% of the women from present study heard about it similar to the findings of Reichheld A et al study in which less than 1% heard about HPV.<sup>9</sup> In current study, only 37.2% of study subjects heard about pap smear similar to Hussain RS et al

study where only 33% knew about pap smear.<sup>10</sup> All these findings in current study explains that more awareness should be created among women regarding cervical cancer. In current study when asked about risk factors of CC, Family history of cervical cancer (63.6%), Poor hygiene (59.2%), HPV Infection (47.2), Multiple sexual partners (27.6%) were known by most of the women. According to Khadka K et al and Devi S et al studies most of them cited sexual intercourse, multiple sex and poor personal hygiene as some of the major risk factors of CC.<sup>11, 12</sup> According to Karunakaran U et al study, 76% of women don't know about the risk factors of CC.<sup>13</sup> In present study, women are less aware of the other risk factors of CC like Multiparity (6.8%), Early marriage (4.8%), Smoking, alcohol (4.4%) similar to findings of Kosambiya RJ et al study where the above risk factors were known by few of the study subjects.<sup>14</sup> These findings reveal that much importance must be given to create awareness among women about CC which is a preventable disease. There is poor knowledge among women in our study regarding symptoms of CC. More than half

of the women identified Vaginal bleeding/discharge (69.2%), Lower Abdominal pain (67.2%), Post-menopausal bleeding (59.6%) as symptoms of CC. According to Gupta P et al study, post coital bleeding, cervical discharge, pelvic pain where identified as symptoms of CC.<sup>15</sup> In our study, very few of the women identified Inter menstrual bleeding (25.6%), Urinary symptoms (7.6%), Post coital bleeding (4%) as some of the other symptoms of CC. Similar findings seen in Jayaprakash M et al and Dahiya N et al studies.<sup>16,17</sup> The association between education status and knowledge about prevention of CC, awareness of HPV and Pap smear was found to be statistically significant. In Islam JY et al study, there was significant association of knowledge and education status of women about CC.<sup>18</sup> Most common source of information was found to be Doctor/Health care workers (75.8%) followed by Relatives or friends (71.6%), Newspaper, Magazines (19.1%), Internet (10.8%) and Television, Radio (6.2%). In a study done by Nelson SB et al., Health workers (41.2%) were the most common source of information followed by friends & family (26.5%) and Television (8.2%).<sup>19</sup> According to Patra S et al study, most of the respondents had heard about CC from friends and relatives (65.6%) followed by health-care personnel (28%) and print media (25%).<sup>20</sup>

## CONCLUSION

Most of the women participated in our study have inadequate knowledge and awareness regarding CC. Hence there is a need to promote CC prevention by conducting Health camps and awareness programs at community level for women.

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## Declarations

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**Conflict of interest:** None declared

**Ethical approval:** The study was approved by the Institutional Ethics Committee

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