



# Awareness of Screening and Prevention of Cervical Cancer in Women of Reproductive Age Group: The Overlooked Entities!

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## ABSTRACT

**Background:** India carries the leading cancer load for cervical cancer, however, awareness regarding cervical cancer is poor among women of reproductive age group. The study was conducted with objectives to find out awareness regarding cervical cancer among women of reproductive age group from urban slum; and to assess screening and preventive practices and reasons for non screening .

**Methods:** A Cross sectional study was carried out in an urban slum. Total of 200 women of age group 15-50 years were interviewed with a pretested preformed questionnaire.

**Result:** General awareness about cervical cancer was about 42%. The knowledge of cervical cancer regarding causative agent, risk factors, cardinal symptoms and preventive measures was found to be poor. Only 6(3%) were aware of Pap test and only 2 (1%) of the women had ever undergone screening in their life. Main reasons for non-screening were lack of knowledge. Only 4.5% women were aware about HPV vaccine and none had ever taken.

**Conclusion:** Level of knowledge regarding cervical cancer screening and prevention was found to be poor. Screening practices were negligible & none of them ever vaccinated with HPV vaccine. Lack of knowledge was the main reason for non screening.

**Keywords:** Cervical cancer, Screening of cervical cancer, Prevention of cervical cancer, Slum, Women of reproductive age.

## INTRODUCTION

Cervical Cancer is second most common cancer in women in the world with Incidence: Mortality ratio of 530,000:275,000 (Approx 52%).<sup>1</sup> However the mortality is falling in the developed nations owing to screening practices; but it still remains dominant in developing world with 88% deaths (159,800 in Asia). India carries the leading cancer load for cervical cancer with an incidence: mortality ratio of 27:15.2 (per 10<sup>5</sup> populations) and leads to 11.4% of total cancer related deaths in the country.<sup>2</sup>

Causative Agent Human Papiloma Virus is the causative agent of cervical cancer most of the times, along with other risk factors like age, genital warts, marital status, early marriage, OC pills, and low socioeconomic strata.<sup>3</sup>

"Screening is active search of disease among apparently healthy people."<sup>3</sup> Introduction of screening measures like Papanicolaou test, FNAC and clinical tests like acetic acid test have proved a boon in early detection and prevention of carcinoma cervix which is one of the objectives of National Cancer Control Program. Papanicolaou test is a screening test which can detect the dysplasia in the epithelial cells in the Pap smear from the cervical tissue. Evidence based studies have found that the optimal age for cervical cancer screening to achieve greatest public health impact is between 30-39 yr. A single visit or two visits for PAP testing can reduce the lifetime risk of cervical cancer by 25 and 35 per cent, respectively.<sup>4</sup> HPV vaccination is available in the form of two highly efficient vaccines providing lifetime immunity if given at the

age of 11-26 years before their first sexual contact. Though prevention is possible and screening services are available, the awareness is still less in common population. Previous studies on cancer screening awareness in Kerala and in Kolkata have shown lack of awareness in rural and urban Indian women respectively. Research on attitude towards HPV vaccine in Mysore showed lack of awareness about vaccine.<sup>5,6,7</sup>

So the study was conducted to find out awareness regarding risk factors, symptoms, screening and prevention of cervical cancer among women of reproductive age group from urban slum and to assess screening and preventive practices..

## METHODOLOGY

A community based descriptive cross-sectional study was carried out in the field practice area under the Urban Health Training Centre attached to the Department of Community Medicine of a medical college in Nagpur. The study subjects were the women of reproductive age group of 15-50 years in the selected field practice area of UHTC.

A total population of 30,000 is covered under UHTC. The field practice area is divided into 5 slum areas. Out of which one area that is Ramabai Ambedkar Nagar is selected by simple random sampling. This area covers 600 houses with an approximate population of 3,000 people. Considering the value of 'Prevalence of awareness of cervical cancer screening (P)' as 0.74 and 'CL' as 90%, the sample size calculated is 190.<sup>5,8</sup> But for better coverage a total of 200 women were interviewed.

List of houses of Ramabai Ambedkar Nagar was obtained from UHTC and every 3rd house was selected by systemic random sampling for the proposed study until a sample size of 200 women was reached. All the women falling in the age group of 15-50 years were interviewed from these households, except the women who were already diagnosed having cervical cancer or those who did not give consent for this study.

After taking permission from the Institutional Ethical Committee (IEC), NKP SIMS & RC, this study was carried out for two months from April-May 2014. An informed consent was obtained from the women whose interview was taken. The women were informed about the question format. Total privacy & secrecy of her name and her data was promised to her before taking the consent. A detailed information regarding socio-demographic variables, information regarding knowledge regarding cervical cancer was collected in a pre-designed and pretested questionnaire by personal one on one interview in local vernacular language. The other aspects which were intended to be asked

were regarding the knowledge of risk factors, symptoms, screening and preventive measures of cervical cancer. Practices of screening and preventive measures were given a special emphasis.

A list of risk factors, symptoms and other preventive measures was prepared after referring standard textbook of community medicine. Open ended questions were asked to the study subjects regarding each of these and knowledge of women was determined by scoring technique. Each correct response was scored with 1 point for the questions of risk factors, symptoms and preventive measures respectively. Women were then stratified into two classes wherein one class was of women who had points < 2 and the other class of remaining women who had points  $\geq 2$  for easier handling of data.

Socio-economic status is calculated by using modified B.G. Prasad Scale.<sup>9</sup> All data was entered in Microsoft Excel sheet and statistical analysis done by using Proportions. Data was analyzed by using Epi-Info statistical software (version=3.5.4).<sup>10</sup>

## RESULTS

### A] Socio-demographic Profile of the Population

The mean age of women in the study population was  $29.4 \pm 8.8$  with age ranges from 15-50 years. It was found that more than half 113(56.5%) women were educated HSC or more. Majority 161(80.5%) women were housewives. A total of 138(69%) were married, 53(26.5%) were single while 9(4.5%) were widow or separated. Maximum population belonged to nuclear families 149(74.5%). Most of the families 62(31%), 53(26.5%) belonged to Grade II and Grade III as per modified B.G. Prasad's classification respectively.

### B] Knowledge of Cervical Cancer

Among the 200 women included in the study, 185 (92.5%) women were aware of the term cancer. But only 84(42%) women have heard of cervical cancer. In the study population only 16(8%) women could associate that a causative agent or any factor led to the onset of cervical cancer. In this study majority women 130(65%) thought that cervical cancer could be cured by some timely intervention.

**Table.1:- Knowledge about risk factors and symptoms of Cervical Cancer**

Knowledge	Good knowledge (Score $\geq 2$ )	Poor knowledge (Score <2)
Risk factors of Cervical cancer	40 (20)	160 (80)
Symptoms of Cervical cancer	78 (39)	122 (61)

**Table.2:- Awareness of screening for Ca cervix**

Awareness of screening and screening practices	Yes (%)	No (%)
Do you know cervical cancer can be detected early?	95 (47.5)	105 (52.5)
Have you heard of any test that can detect cervical cancer?	29 (14.5)	171 (85.5)
Do you feel detection is necessary?	173 (86.5)	27 (13.5)
Do you know where screening is done?	120 (60)	80 (40)
Do you know about Pap Test?	6 (3)	194 (97)

**Table.3:- Reasons for non screening**

Reasons *	Respondents (%)
Lack of knowledge (about cervical cancer, early detection, Pap test etc.)	194 (97.97)
Unavailability of resources (medical setting, money, time etc.)	77 (38.88)
Psychosocial inhibitions (psychological fear, social awkwardness, fear of defamation etc.)	79 (39.89)

\*(Multiple responses were allowed)

Most common correctly named risk factors for cervical cancer included lack of hygiene, multiple sexual partners and multiparous women. Most common symptoms which were named by the women were bleeding, discharge & pelvic pain. [Table 1]

### C] Awareness & practices of screening.

Out of total 200 women 47.5% women knew that cervical cancer could be detected early. When asked to name tests for cervical cancer 171(85.5%) women could not name any. Only 6(3%) women knew about Pap test as a screening test. Use of practices was found to be poor with only two of them had ever undergone screening for cervical cancer in their life. [Table 2]

The remaining 198 women were interviewed further regarding the reasons of non- screening of cervical cancer and their multiple response answers were tabulated. [Table 3]

### D] Preventive measures.

Prevention knowledge was assessed of the study population; only 73(36.5%) women had good knowledge about cervical cancer prevention. The most common response in this aspect was maintenance of hygiene, avoiding multiple sex partners and restricting no. of children to two. Majority of women 116(58%) thought that prevention of cervical cancer is possible. Awareness about HPV vaccine was found to be poor. Only 9(4.5%) women had knowledge of HPV vaccine and all of them were adolescent girls.

## DISCUSSION

Even though 92.5% women knew about the term 'cancer', only 48% women could term cervical cancer as a cancer affecting women. This is in contrast to a study conducted in Ernakulum district in Kerala by Awasthy et al,<sup>5</sup> where 72.1% women knew about cervical cancer. In another study conducted by A. Saha et al in Kolkata in West Bengal among

college going girls reported awareness about cervical cancer to be only 20%.<sup>6</sup> As the study is conducted in suburban slum area, the higher awareness level is found.

Only 8% women were aware that infection with HPV with the cause of cervical cancer, in contrast to the 15% reported by A. Saha in the study conducted at Kolkata, West Bengal.<sup>6</sup> A qualitative study by Bingham et al reported low level of knowledge on HPV among population of four developing countries (India, Peru, Uganda, and Vietnam). Less level of education may be the reason for less level of awareness.<sup>11</sup>

Only 20% women had knowledge about risk factors and 39% had knowledge of symptoms for cervical cancer. The study conducted at Ernakulum district in Kerala by Awasthy et al. reported nearly similar figures wherein 81.2% could not name any risk factor whereas 48.8% women knew about the cardinal symptoms of cervical cancer.<sup>5</sup> The most common risk factors named by the women were multiple sex partners, poor hygiene and multiparous women; and the most common symptoms mentioned were bleeding per vaginum, discharge per vaginum and pelvic pain. These responses were similar to those given by Awasthy et al.<sup>5</sup>

In this study 47.5% woman reported that early detection for cervical cancer is possible, however only 3% could name Pap test as a method of early detection for cervical cancer. The study conducted in Kolkata, West Bengal by A. Saha et al reported knowledge of pap test to be 11%,<sup>6</sup> while 5.8% women knew about Pap test in Ernakulum district, Kerala reported by Awasthy et al.<sup>5</sup> Only 1% of the study population had undergone screening for cervical cancer in their life. This proportion was much lower than that reported by Awasthy et al (6.9%).<sup>5</sup> Similar percentages were also supported by two studies conducted on screening for cervical cancer in Dindigul, Tamil Nadu and Osmanabad, Maharashtra, 2 of 80269 women and 8 of 131746 women aged 30-59 years had undergone previous

cervical cancer screening, respectively.<sup>12,13</sup> The results were lower than those given by WHO health surveys, according to which the screening coverage in age group of 18-69 years among Indian women was 2.6% (4.9% in urban India).<sup>14</sup>

While finding the reasons of non screening, 97.97% women reported lack of knowledge of disease and its screening, 40% reported psychosocial inhibitions and 39% also felt that the main reasons were non availability of resources (e.g. medical settings, time or money). This can be compared with the studies that took place in Ernakulum district in Kerala by Awasthy et al where only 50% women were reported as lack of knowledge.<sup>5</sup> Women chose not to undergo screening as they had no symptoms leading to discomfort. Similar findings were reported in the Kolkata study where most of the women did not appreciate the importance of preventive health check up in the absence of symptoms.<sup>15</sup> The International Agency for Research on Cancer (IARC) supports these findings in that women fail to be screened due to insufficient resources, lack of knowledge, inability to access the health care delivery system, individual psychosocial and cultural context, fear or limited family support and community participation.<sup>16</sup>

Only 4.5% population were aware about HPV vaccine and all of them were adolescent girls. This data is consistent with the other studies which showed that while the study population had little knowledge about HPV & HPV vaccine; most were still accepting of HPV vaccine for the prevention of cervical cancer.<sup>7, 17, 18</sup> Health education sessions for adolescent girls under various programs may be the reason for present study finding.

## CONCLUSION

Level of awareness of cervical cancer, its risk factors, symptoms and prevention measures were found to be poor. The knowledge about screening and its practice among women of urban slum was found out to be negligible. Even the knowledge and practice of HPV vaccination was found out to be very low. Regular health education sessions can be taken to increase the knowledge about this disease and measures must be taken to increase screening practices among urban slum dwellers in order to decrease its burden over society.

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