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Knowledge, Awareness and Prevention of Cervical Cancer among Women residing in urban slum of Ahmedabad Municipal Corporation

Community Medicine

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ABSTRACT

Background: Cervical cancer is the third most common cancers among women worldwide, with highest mortality in India. This can be reduced by screening women for precancerous lesion and administration of human papilloma virus vaccine to adolescent girls. Knowledge of the adolescent girls and women about cervical cancer and its prevention are the key. **Methods:** A cross sectional survey of 255 women of two urban slum area of AMC was conducted. Information about their knowledge of cervical cancer, awareness of its prevention was collected. **Results:** Mean age of the study population was 36.54 ± 8.5 years. Less than half of the study population (107, 41.9%) knew about cervical cancer. Majority (90%) were not aware about screening services and HPV vaccination. **Conclusion:** Study population shows poor knowledge about cervical cancer and is unaware of the concept of prevention. Hence extensive health education to the public is needed regarding cervical cancer and its prevention.

Introduction

Cervical cancer is the leading cancer and leading cause of cancer mortality in India accounting for 23.3% of all cancer deaths in women [1].

Since the main risk factor for the development of cervical cancer is human papilloma virus (HPV) infection, [2] Vaccination with HPV vaccine confers protection against cervical cancer [3].

Also screening for precancerous lesions reduces the incidence and mortality from cancer cervix. Cytology based screening program using Papsmears have been found to be effective in developed countries [4]

The current study aims to assess the knowledge and awareness of cervical cancer and its prevention in women in urban slum setting in Ahmedabad and the socio demographic factors associated with accessing the screening services.. As preventing cancer with the help of a vaccine is a comparatively new concept, awareness and education will have important implication in the implementation of this strategy.

Methods

This cross sectional study was conducted in two slum area of Vasna and Doodheswar of Ahmedabad Municipal Corporation. We used purposive sampling to select married women from both the areas. Total 255 women were enrolled in study after taking consent during study period (June 2016 to August 2016).

Girls were interviewed using structured questionnaire. Blinding of the subjects was not required as no intervention was made and it was a cross-sectional study.

Measures

The questionnaire was designed based on cervical cancer awareness measure toolkit version 2.1. It was pretested on a sample of 10 women and modified accordingly for use in the study [5].

It consisted of 4 parts: Socio demographic information, knowledge about cervical cancer, awareness about preventive measures for cervical cancer, participation and barriers to attending screening services. The section on knowledge about cervical cancer consisted of questions about risk factor and symptoms of cervical cancer. Correct answer was given 1 point and the total score for this section was 11 for risk factor and 11 for symptoms of cervical cancer. A score of <4 was considered as some knowledge of cervical cancer and ≥4 as good knowledge of cervical cancer. After interview the women were given health education regarding cancer cervix and willing participants were encouraged to be screened.

Statistical Analysis

Statistical analysis was performed using Epi info version 3.5.1. Chi-square was applied to find out the significance of socio-demographic variables on awareness and practice of cervical cancer screening. p-value < 0.05 was considered significant.

Results

The mean age of women in the study population was 36.54 ± 8.5years. Less than half of the study population was aware of cervical cancer [Table 1] and only one-third of the women had knowledge about its risk factors and symptoms [Table 2]. Smoking cigarettes (10.3%), long term use of oral contraceptive pill (16.3%), poor genital hygiene (7.5%), having a sexual partner with multiple partners (15%) were considered the major risk factors for cervical cancer. Of the symptoms of cervical cancer, bleeding during or after sex (15.3%), vaginal bleeding after menopause (10.3%), pain during sex (10%) and persistent low back pain (9.8%) were considered more frequently by the women. Only 7.3% of the women considered themselves at risk of cervical cancer.

Women's education status and occupation influenced their awareness of screening [Table 3]. Lack of awareness (209, 82.25%) and absence of symptoms (29, 11.25%) were the main reason given by women for not undergoing screening.

Table 1: Awareness of cervical cancer and its prevention in study population

Factors	Yes(%)	No(%)
Cervical cancer	107 (41.9)	148 (58.1)
Papsmear	24 (9.4)	231 (90.6)
Vaccination	11 (4.3)	244 (95.6)

Table2: Knowledge about cervical cancer and source of information in studied subjects

Knowledge factors	Nil n (%)	Some n (%)	Good n (%)
Knowledge of risk factors	184 (72.1)	43 (16.8)	28 (10.9)
Knowledge of symptoms	178 (69.8)	51 (20)	26 (10.2)
Self perceived risk	Never 8 (3.1)	Not likely 203 (79.6)	May or may not 44 (17.3)
Source of information	Health staff 24 (9.4)	Media 38 (14.9)	Neighbours 41 (16.07)

Table 3: Association of socio demographic characters to awareness and practice of cervical cancer screening

Socio-demographic variables	Total number	Aware of screening		Practice of screening	
	N (%)	Yes N (%)	p-value	Yes N (%)	p-value
Age					
18-35 Yrs	98(38.4)	20(7.8)	0.514	4(1.6)	0.771
36-50 yrs	157(61.6)	26(10.2)		9(3.5)	
Education status					
Illiterate	81(31.8)	10(3.9)	0.039	2(0.8)	0.001
Primary	112(43.9)	24(9.4)		3(1.2)	
Secondary	55(21.6)	8(3.1)		8(3.1)	
Graduate	7(2.7)	5(2.0)		5(2.0)	
Occupation					
Housewife	162(63.5)	30(11.8)	0.006	8(3.1)	0.424
Housemaid	87(34.1)	13(5.1)		4(1.6)	
Other	6(2.4)	4(1.6)		1(0.4)	
Distance to nearest health care					
<1 Km	105(41.2)	22(8.6)	0.821	6(2.4)	0.994
1-3km	61(23.9)	11(4.3)		3(1.2)	
3-5km	53(20.8)	8(3.1)		4(1.6)	
>5km	36(14.1)	6(2.4)		2(0.8)	

DISCUSSION

This study presents socio-demographic variation in the knowledge and awareness of prevention and control of cervical cancer in a rural population in a developing country. Our study showed that 41.9 % of the women were aware of cervical cancer and 18% were aware of screening where as in a study conducted in rural population of Kerala [6]. This could be probably explained by the difference in the education status of study population in the two studies.

In our study, better education and occupation was found to have significant impact on the awareness of screening which is consistent with findings in studies done in Wufeng County, China [7]. But education and occupation did not have significant effect on practice of screening which is only 5%. Similar association was reported by Obeichina and Mbamara in Onitsha, southeast Nigeria [8]. This is probably because of the poor utilization of the screening services by the women, that significant difference could not be made out. But another study conducted among women in a rural district of Tanzania reported 22.6% of their women to have had cervical cancer screening [9].

Age of the women as well as distance to health facility did not have significant effect on utilization of screening services in our study unlike other studies where younger and better educated women were willing to undergo screening [10]. Tanzania study identified that women's knowledge about cervical cancer, accessibility to screening facility and husband's approval influenced their screening status [11].

Lack of awareness about screening services, no symptoms and fear of procedure were the reason given by our women for not undergoing screening which is similar to the Kerala study [6].

Few among our study population, 6.5% had heard of HPV infection as a risk factor and 2.8% knew about HPV vaccination. In a study conducted in China, 22.1% and 13.3% of the study population had heard of HPV and HPV vaccine respectively [12].

The knowledge level about cervical cancer was low among the participants in spite of the introduction of National Cancer Control Programme in India. This is probably because the primary health care facilities are often over burdened and under resourced [13].

In summary, our study population shows poor knowledge about cervical cancer and is unaware of the concept of prevention. If the women had full information on cervical cancer and its prevention and understood the importance of screening their response to NCCP will be better. Hence, extensive health education to the public is needed regarding cervical cancer.

Limitation

It was a cross sectional study conducted among women in urban slum using purposive sampling and so it is not representative of whole population. The women were of low income and less educated group and so the results may not be generalized to all women, particularly those in urban areas. The method of interviewing rather than self administered questionnaire may have influenced the results as some of the questions were close ended and some women may have responded in a positive manner to present themselves as knowledgeable.

Conclusion

Extensive health education to the public is needed to improve their knowledge with an emphasis on the fact that both vaccination and screening are the new standards for prevention of cervical cancer, as HPV vaccination prevents most of the cervical cancer and screening can detect precancerous lesions which can be mitigated by treatment. Also utilization of the services of media like television, newspaper and radio can have massive impact in improving the knowledge.

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