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Symptomatologic Screening of Cervical cancer among Ever Married women in Urban slums of Coastal Andhra Pradesh – A cross sectional study.

<sup>1</sup>Dr. Lingudu Sowmya, Assistant Professor, Community Medicine, Rangaraya Medical College, Kakinada, Andhra Pradesh.

<sup>2</sup>Dr. Thej Kiran Reddy Dalli, Assistant Professor, Community Medicine, GSL Medical College, Rajahmundry, Andhra Pradesh.

<sup>3</sup>Dr. V Priyanka Muppidi, Assistant Professor, Community Medicine, Rangaraya Medical College, Kakinada, Andhra Pradesh.

<sup>4</sup>Dr. G Krishna Babu, Professor, Community Medicine, Maharajah's Institute of Medical sciences, Nellimarla, Vizianagaram, Andhra Pradesh.

**Corresponding Author:** Dr. Lingudu Sowmya, Assistant Professor, Community Medicine, Rangaraya Medical College, Kakinada, Andhra Pradesh.

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# Abstract:

**Background**: Worldwide, cervical cancer is the fourth most common cancer in women with an estimated Incidence of 604 000 in 2020. 90% of the deaths due to Cervical Cancer occur in low and middle-income countries. Cervical cancer can be cured if diagnosed at an early stage and treated promptly. Comprehensive cervical cancer control includes primary prevention (vaccination against HPV), secondary prevention (screening and treatment of pre-cancerous lesions), tertiary prevention (diagnosis and treatment of invasive cervical cancer) and palliative care.

Aim and objectives: Main aim of the present study is to assess socio demographic profile of the study population, warning signs of cervical cancer and to screen the evermarried women. **Methodology**: Cross sectional study was carried out in ever married women in Urban slums of North Coastal Andhra Pradesh who gave informed written consent.

**Results**: The mean age of our study population was  $38.03\pm 12.43$  years. Among study subjects 92(27.4%) underwent pap smear with voluntary consent. Pap smear was not done in 244(72.6\%) study subjects as they did not give the consent for pap smear. Those who have not done with screening, predominant reasons were thinking that the test is not required, fear, misconception of procedure (painful), lack of awareness.

**Conclusions**: At the end of the study, study participants will be aware of available screening tests and health facilities where they have done and vaccine to curtail the disease. This study will be helpful in reducing fear and anxiety towards screening tests among at risk women

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who have warning signs. This study included participants from 15 years So that we can create knowledge earlier i.e., before they entered into marital life.

**Keywords**: Cervical Cancer, Warning signs, evermarried women, Pap smear.

## Introduction

Transformations in Demography, Economy, Epidemiology and culture are taking place at such a rapid pace that it becomes difficult for the underdeveloped countries to keep up pace with the developed countries. Cancer has been the disease of the 20<sup>th</sup> century in the European and American regions. The leading causes of cancer among males and females is different. The leading cause of cancer among females include breast cancer, cervical cancer, uterine cancer, and oropharyngeal cancer followed by stomach cancer.

The natural history of cancer cervix is influenced by social, behavioural, nutritional and dietary factors and certain viruses like HPV, HSV and Chlamydia trachomatis<sup>1</sup>. Social factors like age at menarche, menstrual hygiene, age at first sexual encounter, age at marriage, multiparity and multiple sexual partners are said to have influenced the development of cancer cervix. Screening for CIN and cervical cancer is a principle preventive measure to reduce the burden of deaths due to cervical cancer. The main aim of screening is to identify early-stage invasive cancer, a pre-malignant lesion that can progress to cervical cancer if left untreated. Pap smear is effective in identifying precursor lesions.

**Purpose of the study:** A population-based survey indicates that cervical cancer screening in developing countries is 19% when compared to 63% in developed countries. Even now, women do not have the awareness of periodical screening. Creating awareness and health education among women regarding the symptoms of cervical cancer, lifestyle education, identification of risk

factors can enhance the health care seeking behaviour for early-stage detection of cervical cancer.

To date, various studies have been conducted on the risk factors associated with cervical cancer. The aim of our study is to assess the socio demographic profile of the study population, to screen the at-risk women.

#### Objectives

- 1. To study the socio-demographic profile of the study population.
- 2. To screen the women for cervical cancer by using Pap Smear.

## Methodology

**Study design** Community based Cross sectional study. **Study setting** Urban Slums in Kakinada

**Sample frame** Ever married(married/divorced/separated) residing in urban slums.

Study period 1 year

**Inclusion criteria** 1. Ever married women aged above 21 years, who are pregnant also are included in the study.

2. Who are willing to participate in study.

Exclusion criteria Women who had undergone hysterectomy

### Sample size calculation

Sample size calculated by using N=  $4pq/l^2$  assuming prevalence of warning signs 30% and absolute error 5%, p= 30%, q= 100-p i.e., 70% with confidence limits 95%, sample size estimated was 336.

### Sampling technique

After obtaining details of urban slums under each UHTC from Municipal Health Office, one slum has been selected randomly from each UHTC. The total no of households 4456, sample required is 336. Hence sampling interval for the study is 4456/336 = 13. hence every  $13^{\text{th}}$  household has been covered under study the assumption is being one woman is present in every household. The same sampling interval has been used

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uniformly in all the slums covered under the study. If any selected house was found to be locked or woman eligible for the study was not present at the time of visit the adjacent house was selected for the study.

## **Study tools**

Predesigned, pre tested, semi structured oral questionnaire, measuring tape, weighing machine, vaginal speculum, Ayer's spatula, slides, fixation jar.

# **Ethical issues**

Prior approval from the institutional ethics committee was obtained. All the prerequisite permissions and requirements for the study were obtained. Informed written consent from all the participants has taken. Confidentiality was maintained and completed sheets were kept secure. Subjects who are willing for Pap smear testing were subjected to the above-mentioned tests. Information to the patient was also mentioned in the consent form for facilitating follow up.

### **Data collection**

The eligible women selected were administered predesigned, semi structured questionnaire to obtain the necessary information. The subjects were explained about the purpose of study. Information was collected considering the variables age, education, occupation, religion, per capita income, knowledge of cervical cancer, warning signs. The subjects were explained about screening methods (VIA, Pap smear) and benefits of screening.

### Data analysis

Data was entered onto a computerized excel (micro soft excel 2010) spread sheet and subsequently it was analyzed using SPSS trial version 20 software packages. To summarize data, percentages and proportions were used. Appropriate statistical tests were applied where ever necessary. P value of < 0.05 was taken as statistically significant.

# Expected benefits to the study subjects

Helping the study subjects to overcome their existing health problems, creating awareness regarding risk factors, warning signs and screening services for cervical cancer among women in the community. Provision of knowledge regarding prognosis, treatment of cervical cancer. Positive attitude and right practices would be reinforced by ASHA/AWW.

### Criteria for study subjects for pap smear

- Every woman presenting with warning signs was offered screening tests for cancer cervix.
- Choice of the test was given to the subjects. PAP testing was done for all the women who voluntarily agreed for the test. Pap smear was not done in those women who were pregnant in the time of study.

### **Results and Discussion**

- Age range of study subjects is 17-80 years. Mean age of study subjects is 38.03± 12.43 years. Most of the study subjects belong to the age group of 21-30 years. In the study conducted by Abdul aziz<sup>2</sup>, khan et al in 2016 in Saudi Arabia mean age is 36.4 years as compared to mean age of 52.6 years in the study conducted by Nandasena<sup>3</sup> HMRKG et al in 2016 in Srilanka as compared to the mean age of 58.3±8.4 years in the study conducted by Neha<sup>4</sup> et al in 2017 in Kerala. Aparajita dasgupta<sup>5</sup> et al in 2002 in her study in West Bengal observed that more than two-third (72.8%) of the study population belonged to the vulnerable age group of 25-45 years.
- Religion wise distribution of the study subjects suggests that 80.8% of study subjects are Hindus as compared to 16.3% of Christians as compared to 2.9% of Muslims. Varsha chaudary and Rajeev kumar <sup>6</sup>et al in 2012 in their study done in Northern India observed that 71.3% of study subjects were hindus and 28.7% were muslims. Similarly, Cherian

Varghese<sup>7</sup> et al in 1999 in Kerala observed that 80% of study subjects were hindus as compared to 9 % muslims and 11% Christian.

55% of study subjects are from nuclear families as compared to 26% from extended and 19% from joint families.

In the present study 66.3% of study subjects are literates as compared to 33.7% of illiterates as compared to 34.3% with secondary level of education. As per NFHS  $5^8$  data, literacy rate for women in Andhra Pradesh state is 68.6% and for that of East Godavari District is 77.9%. In the study conducted by Georges et al<sup>9</sup>, in 2016 in Cameroon,72.3% are literates as compared to 27.7% illiterates. In the study conducted by Neha dahiya<sup>4</sup> et al in 2017 in Delhi observed that 60% of study subjects were illiterates. Similar percentage (60.1%) of illiteracy has been observed by Varsha chaudary and Rajeev kumar<sup>6</sup> et al in 2012 in Northern India.

85.3% of present study population were housewives and did not have a specific occupation. In the study done by Hassan al khudairi et al<sup>12</sup>, in 2017 in Saudi arabia 64.5% of Study Subjects were housewives. In the study conducted by Cherian Varghese<sup>7</sup> et al in 1999 in Kerala observed that 84% of Study Subjects were housewives.

52% of the study Subjects belong to upper lower class as compared to 31 % in lower class and 11% in lower middle and 6% in upper middle class. In a study done by Fatama tou zohera<sup>11</sup> et al in 2017 in Bangladesh observed that 90.4% of study Subjects belong to middle class as compared to a study done by Gulendam, Ramazan(32) et al in 2014 in Turkey observed that 64.2% of study Subjects were in middle income group . In a study done by Neha dahiya<sup>4</sup> et al in 2017 in Delhi observed that more than 60% of study Subjects belong to middle class. In the present study 46% of the study population have attained menarche below the age of 12 years as compared to 54% above 12 years.86.5% of the study subjects are married. Hassan al Khudairi<sup>12</sup> et al in 2017 in Riyadh city in Saudi Arabia observed that 94.1% of study subjects are married as compared to a study done by Abdul aziz<sup>2</sup> et al in 2016 in Saudi Arabia observed that 80% are married.

76 % of the study subjects are using cloth during their periods as compared to 22% using pads. Among 76% ,3.9% of the Study Subjects are aged <20 years as compared to 78.16% aged between 21-50 years and 17.8% of those aged >50 years. Among 22% those who were using pads 11.8% belongs to age group less than 20 years as compared to 79% in the age group of 21-50 years and 9% were above 50 years.

56.5% of study subjects had abnormal vaginal discharge. 56.4% who had low back pain were above the age of 30 years.42.5% of women who had abnormal vaginal discharge and 43.6% who had low back pain attained menarche by the age of 12 years. Among cloth users during menstruation 78.5% had discharge and 73.4% had back pain. 76.7% of study subjects with discharge and 73.4% with back pain had their first sexual encounter by the age of 18 years (<18 years). Among women who practice douching 3% had abnormal vaginal discharge and back ache.

70% of study subjects had abnormal vaginal bleeding and 58.4% who had dyspareunia were above the age of 30 years. 46% of women who had abnormal vaginal bleeding and 55.4% who had dyspareunia attained menarche by the age of 12 years. Among cloth users during menstruation 84% had bleeding and 77% had dyspareunia. 78.5% of study subjects with bleeding and 72.3% with dyspareunia had first sexual encounter by the age of 18 years (<18 years). Among women who practice

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douching 4.3% had abnormal vaginal bleeding and 1.5% had back ache.

76.1% of study population with vaginal discharge. 72.3% of study population with low back pain were married below the age of 18 years. 47.4% of study population with discharge and 46.8% with back pain had more than 15 years of cohabitation. Among multipara 34% had vaginal discharge and 35.1% had low back pain. 45.3% of women with vaginal discharge and 45.7% of women with low back pain had their first child below the age of 18 years.

78.5% of study population with vaginal bleeding and 70.7% of study population with dyspareunia were married below the age of 18 years. 64.8% of study population with bleeding and 50.8% with dyspareunia had more than 15 years of cohabitation. Among multipara 41.2% had vaginal bleeding and 30.7% had dyspareunia. 50% of women with vaginal bleeding and 53.8% of women with dyspareunia had their first child below the age of 18 years.

Place of delivery doesn't play a role in warning signs as the policy in country is to have 100% safe institutional delivery.



Figure 24: Distribution of Study Population Based On Pap Smear

Among study subjects 92(27.4%) underwent pap smear with voluntary consent. Pap smear was not done in

244(72.6%) study subjects as they did not give the consent for pap smear.

## Conclusions

- 92 study subjects agreed voluntarily for a pap smear examination out of 336. Reasons for not getting pap smear done include thinking that the test is not required, fear, misconception of procedure (painful), lack of awareness, and other reasons like fear of adverse events, busy schedules and believing in karma.
- The awareness and knowledge of cancer cervix is very low in people living in urban slums. Health education regarding cervical cancer has been imparted to every participant in the study, which needs to be followed up from time to time.

## Recommendations

- 27.4% underwent voluntary screening. Social determinants, which curb the early diagnosis and prevention of cancer cervix include low education, unemployment and low socio-economic status. Schemes like free education up to school and beyond, employment guarantee schemes and health insurance, if implemented effectively, will nullify these determinants.
- IEC programmes should talk about Cancer cervix at the Anganwadi centre under RKSY, PMMSY, RMNCH+A and also as STI and RTI components of RCH. The ASHAs and ANMs can play a key role in initiating the treatment process at the PHC and CHC level. Free screening tests may be encouraged at the CHC level and 24 X 7 PHCs.

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