

## Cancer awareness among females of urban slums in their reproductive age group

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### ABSTRACT

**Background:** Cancer is major public health problem affecting millions of people worldwide. The prevalence of cancer is increasing in developing world due to increase in life expectancy, increased urbanization and adoption of western life styles. Thus, the present study was carried out to assess the extent of awareness towards cancer among women of urban slums in their reproductive age group.

**Methods:** Community based cross sectional study was carried out by interviewing women of reproductive age group residing in urban slums using pre-designed and pre-tested proforma to assess awareness towards cancer. Descriptive statistics was applied to assess the awareness level and the association between two attributes was calculated by chi-square test.

**Results:** A total of 182 women were interviewed. Out of which 39.56% were in 20-24 years age group. 46.15% were housewives and most of them belonged to middle class families. Though the knowledge regarding cancer, especially about modes of transmission, symptoms and laboratory diagnosis was found satisfactory but was accompanied by misconceptions. 71.43% women were aware about its prevention, mostly by changing life styles and by getting screening done at regular intervals.

**Conclusion:** Thus, impetus has to be laid upon screening regarding cancer during reproductive age group and enlightenment of the women about cancer screening centres available at the hospitals, so as to heighten the knowledge of facilities for a better reproductive life.

**Keywords:** Awareness, Cancer, Non-Communicable Diseases, Odds ratio, Urban Slums

### INTRODUCTION

Non-Communicable Diseases (NCDs) are assuming increasing importance among the adult population in both developed and developing countries.<sup>1</sup> Among NCDs, Cancer is a major public health problem worldwide<sup>2,3</sup>, second leading cause of death in developed and is among the three leading causes of mortality in developing countries after individuals reach 15 years of age. Globally every year, six million people die from cancer, which accounts to 12% of deaths in the world and ten million new cases are diagnosed, of which more than half occur in developing countries.<sup>4</sup> In India, Cancer has become one

of the ten leading cause of death. It is estimated that there are nearly 2-2.5 million cancer cases at any given point of time. Over eight lakh new cases and four lakh deaths occur annually due to cancer.<sup>5,6</sup>

The prevalence of cancer is increasing in developing world due to increase in life expectancy, increased urbanization and adoption of western life styles.<sup>7, 8</sup> The likelihood of cure from cancer is usually dependent on the stage of disease at diagnosis. Some patients attend their general practitioner with a long preceding history of cancer symptoms, this may be due to lack of the seriousness of the symptoms.<sup>9</sup>

The traditional image of cancer is one of fear and pain, over the years the image has improved and many cancers are curable, provided they are detected early by screening and treated effectively at an early stage.<sup>10, 11</sup> Therefore to control clear understanding of factors contributing to development of cancer is necessary. Thus, the present study was undertaken to evaluate the extent of awareness of the women living in urban slums towards cancer.

## METHODS

This community based cross-sectional study was conducted among married females of reproductive age group residing in urban slums, which is an urban field practice area of Urban Health Centre, attached to tertiary care hospital, Dharwad, Karnataka. The Urban Health Centre covers a population of 30,000 and provides quality primary health care to the urban slum dwellers and the population of nearby catchment area.

### Pre-study

Prior to the study, a pilot study was conducted involving 20 married women in reproductive age group over a period of one month (November 2011) to assess the feasibility of pre designed proforma. The tested proforma was then utilized in the present study after satisfactory reformations were made in it.

### Present study

After the pilot study, present study was conducted for a period of six months from December 2011 to May 2012. The study was carried out by interviewing married women in the age group of 15 - 45 years by using the tested proforma after signing a written consent form on voluntary basis and confidentiality was assured before the data collection was initiated.

A house-to-house survey, using convenient and systematic random sampling (every 5<sup>th</sup> house considered) was done, case identification was carried out with the help of medical social workers equipped with the proforma. The case load was cross-checked to reassure that the cases were not missed.

A total of 182 women in the study area were surveyed. Relevant information was recorded in the pre-designed and pre-tested proforma covering sociodemographic characteristics like age, occupation, literacy status, socioeconomic status and knowledge regarding modes of transmission. Misconceptions towards cancer patients were also noted.

**Statistical analysis:** Using descriptive statistics, knowledge regarding cancer was evaluated and association between two attributes was analyzed using Chi-square test. Statistical significance was set at 5% level of significance ( $p < 0.05$ ).

## RESULTS

It was found that maximum 72 (39.56%) were in the age group of 20-24 years and 114 (62.64%) had completed higher school education. Almost 84 (46.15%) women were housewives and 75 (41.21%) were from socioeconomic class III - middle class families according to Modified B.G. Prasad classification 2011<sup>12</sup> (Table 1).

**Table 1: Sociodemographic characteristics of women (n=182).**

Age ( years)	Number	Percentage (%)
15-19	06	03.29
20-24	72	39.56
25-29	58	31.87
30-34	21	11.54
≥ 35	25	13.74
Educational status	Number	Percentage (%)
Illiterates	21	11.54
Primary (upto 7)	12	06.59
High School (8-10)	114	62.64
Intermediate (11-12)	28	15.38
Graduate/Above	07	03.85
Occupation	Number	Percentage (%)
House wife	84	46.15
Private Service	39	21.43
Government service	21	11.54
Labourers/Agriculturists	38	20.88
Socioeconomic status	Number	Percentage (%)
Class I	09	04.94
Class II	22	12.09
Class III	75	41.21
Class IV	53	29.12
Class V	23	12.64

When enquired regarding cancer, 137 (75.27%) women got the information from television. Regarding acquiring the disease 153 (84.06%) and 43 (23.62%) told that it is because of environment and genetic factors respectively. Once the disease is acquired, 89 (48.90%) told that they will have lump and more than 53% women were aware that it can be diagnosed by blood and radiological examination (Table 2).

**Table 2: Awareness regarding information on cancer\* (n=182).**

Source of information	Number	Percentage (%)
Television	137	75.27
Schools/colleges	19	10.44
Paper	11	06.04
Advertisements	04	02.41
Others (family members, friends, healthcare providers)	37	20.33
Modes of transmission	Number	Percentage (%)
Environment	153	84.06
Genetic	43	23.62
Others	06	13.04
Symptoms	Number	Percentage (%)
Lump	89	48.90
Change in wart/mole	05	02.75
Persistent cough	25	13.74
Excessive loss of blood	21	11.54
Change in bowel habits	14	07.69
Blood from natural orifices	06	03.30
Unexplained loss of weight	18	09.89
Swelling	39	21.43
Don't know	44	24.18
Laboratory diagnosis	Number	Percentage (%)
Blood examination	112	61.54
Urine examination	10	05.49
Stool examination	04	02.20
Radiology	98	53.85
Any others	08	04.40
Don't know	26	14.29

\* Multiple answers

130 (71.43%) opined that disease can be prevented, of which 82 (63.08%) by changing habits and only 19 (14.66%) told by screening periodically (Table 3).

When literacy status was compared with warning symptoms, it was found that 122 (88.41%) literates were

more aware than 16 (11.59%) illiterates, which was statistically not significant ( $\chi^2 = 0.001738$ ,  $df = 1$ ,  $p = 0.9668$  not significant, Odds Ratio (OR): 1.023, 95 % CI: 0.3519 to 2.974) (Table 4).

**Table 3: Awareness regarding prevention on cancer.**

Prevention	Number (n=182)	Percentage (%)
Can be prevented	130	71.43
Cannot be prevented	52	28.57
Methods of prevention *	Number (n=130)	Percentage (%)
Changing habits/lifestyles	82	63.08
Vaccines	14	10.77
Consult doctor	34	26.15
Screening	19	14.66

\* Multiple answers

**Table 4: Comparison of literacy status versus warning symptoms\* (n=182).**

Literacy Status	Warning Symptoms		Total (%)
	Yes (%)	No (%)	
Illiterates	16 (11.59)	05 (11.36)	21 (11.54)
Literates	122 (88.41)	39 (88.64)	161 (88.46)
<b>Total</b>	<b>138 (75.82)</b>	<b>44 (24.18)</b>	<b>182 (100.00)</b>

\*( $\chi^2 = 0.001738$ ,  $df = 1$ ,  $p = 0.9668$  Not Significant, OR: 1.023, 95 % CI: 0.3519 to 2.974)

## DISCUSSION

The present study was aimed at assessing the knowledge of women in their reproductive age group towards cancer with an attempt to create awareness about cancer and also about various screening tests available at various hospitals through health education programme.

In the study population, majority of the women were in 20-24 years age group, similar to that of study conducted in Chandigarh<sup>13</sup> as well as study done in westbengal.<sup>4</sup>

The present study revealed that the almost 62.64% had completed secondary education which is similar to that of a study conducted among women living in urban slums in Mumbai.<sup>3</sup>

Similar to a previous study carried out in west Bengal<sup>4</sup> on cancer awareness and also in south Delhi<sup>14</sup>, the participants of this study also belonged to socioeconomic class III and IV.

Maximum 75.27% have seen and heard most of the times on television regarding the disease, contrast to other studies done in south Delhi<sup>14</sup> and Mumbai slums<sup>3</sup> different sources of information also played a major role in creating awareness of disease.

Among the participants of this study, the awareness about the disease transmission was almost similar to the reports from a study conducted in Chandigarh.<sup>13</sup>

When enquired about the symptoms of cancer only 48.90% opined that lump will be present and 24.18% told that they do not know any symptoms of cancer which shows that there is lack of awareness of cancer in our study group when compared with other studies done in west bengal<sup>4</sup> and Newdelhi<sup>15</sup> may be because of paucity of awareness campaigns and health education sessions in our slums.

The knowledge about diagnosing the cancer by radiological examination was existent in 53.85% and only 4.40% of women were aware that it can be diagnosed by others investigations (pap smears, mammography etc...) which is less compared to other studies in chandigarh<sup>13</sup> and Mumbai slums.<sup>3</sup>

While 63.08% women knew that it could be prevented by changing lifestyles, which is more compared to study conducted among women staying in Mumbai slums.<sup>3</sup> This could be because of better literacy status in our study group.

When literacy status was compared with warning symptoms, it was found that 122 (88.41%) literates were more aware than 16 (11.59%) illiterates, which was statistically not significant ( $\chi^2 = 0.001738$ ,  $df = 1$ ,  $p = 0.9668$ , OR: 1.023). This shows that as education level increases the knowledge also improves.

## CONCLUSIONS

Even though majority of the participants were educated upto the high schooling, their knowledge about acquiring cancer was found to be good but it was accompanied with some misconceptions, it is thus imperative to dispel the myths and wrong notions about cancer from minds and replace it with correct knowledge. To achieve this, there is need to educate firstly adolescent girls, women in reproductive age group, family members and teachers in the community. Continuous health education not only improves their knowledge, develops positive attitude and helps in healthy practices. Campaigns to educate the public about cancer symptoms and reduce help-seeking barriers could play a role in promoting early diagnosis. If rightly done, it would serve the purpose of reaching the mass at negligible cost. There is also a need to improve the utilization of screening services for the betterment of the community.

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