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Study To Assess Cancer Awareness Among Rural Adult Population in An Area of Kamrup District (Rural), Assam: A Cross Sectional Study

Medical Science

KEYWORDS : Non communicable disease, cancer, schedule, awareness.

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ABSTRACT

Background: Non-communicable diseases including cancer are emerging as major public health problems in India. Awareness of the danger of cancer and the need for cancer screening and early detection can reduce the risk of cancer-related deaths. Aims: To assess cancer awareness among rural population in an area of Kamrup (Rural), Assam. Settings and Design: Cross-sectional study is conducted among 400 adult populations residing in Rani Area, Kamrup Rural, Assam. Materials and Methods: A pretested and semi-structured interview schedule was used for collection of information. Cluster methodology was applied for the selection of the study samples. Results: Out of 400 participants 372(93%) has heard about cancer, 54% thinks it to be a disease whereas 30.5% thinks it to be a tumour or swelling in the body. Majority (76.3%) thinks tobacco and betelnut to be the cause of cancer. Conclusions: When few responses are concerned, awareness of study participants about cancers was poor. It also throws light on the need for various public education programmes, particularly using mass media.

INTRODUCTION:

Non-communicable diseases are assuming increasing importance among the adult population in both the developed and developing countries. Non communicable diseases (NCDs) are the leading global causes of death, causing more deaths than all other causes combined, and they strike hardest at the world's low- and middle-income populations. Of the 57 million global deaths in 2008, 36 million, or 63%, were due to NCDs. Among NCDs, Cancer is a major public health problem worldwide.1

Cancer is the name given to a collection of related diseases. In all types of cancer, some of the body's cells begin to divide without stopping and spread into surrounding tissues.2According to GLOBOCAN 2012 report, 8.2 million people die each year from cancer, an estimated 13% of all deaths worldwide and 70% increase in new cases of cancer expected over the next 2 decades. There are an estimated 25 Lakh cancer cases in India. According to the National Commission on Macroeconomics & Health (NCMH) Report (2005), the Crude Incidence Rate (CIR) for Cervix cancer, Breast cancer and Oral cancer is 21.3, 17.1 and 11.8 (among both men and women) per 100,000 populations respectively.3

The prevalence of cancer is increasing in developing world due to increase in life expectancy, increased urbanization and adoption of western life styles.4 Prevention should be the key element in any disease control programme. Prevention means eliminating or minimizing exposure to the causes of cancer, and includes reducing individual susceptibility to the effect of such causes. This approach offers the greatest public health potential and the most cost effective long-term method of cancer control.5

It is necessary that people are aware of early warning signs and symptoms, so that they seek appropriate interventions at proper time. Assessment of cancer awareness amongst the people would clearly identify the need and support appropriate planning towards increasing the level of awareness amongst people. The present study is aimed to assess cancer awareness among rural population in an area of Kamrup District (Rural), Assam.

MATERIALS AND METHODS: The study was a community based cross sectional study conducted among population under Rani Block, Kamrup Rural Assam. This study area is the field practice area of Rani Rural Health and Training Centre (RHTC) under Department of Community Medicine, Gauhati Medical College, Guwahati. In order to calculate the sample size a study conducted among urban slum dwellers in New Delhi was taken as the reference.6 In the study the overall percentage of the people who had some knowledge pertaining to cancer was found out to be 51%. Assuming 51% as the prevalence, relative error as 10% the sample size was calculated out to be 384 using the formula n = Z2pq/L2 Where, n = required sample size, z=2, p = expected or assumed prevalence, q = (100-p) and L = precision. It is rounded off to 400.There are 54 villages under Rani Block according to the Census 2011. The lists of all the villages were obtained from the census office which was taken as the sampling frame Cluster methodology was applied. Taking these 54 clusters (villages) as the primary sampling unit, 20 such clusters was selected by using Probability Proportional to Size (PPS) method and 20 adults above 18 years of age were taken from each cluster to get the desired sample size of 400. House to house visit was done until the desired 20 adults above 18 years of age were found in each cluster. If the required sample was not obtained in one cluster then the adjacent village was included to get the desired sample. In each selected household, all the adults above 18 years who gave consent to participate in the study were included. Then all the adults meeting the inclusion criteria were interviewed by using the pretested and semi structured questionnaire and their awareness regarding cancer was assessed. Data collection was done from 1st March to 30th April, 2016 for a period of two months. Descriptive statistics was used to assess the cancer awareness.

RESULTS: Table 1 shows that majority of the study participants belongs to 18-40 years age group (51.3%). Out of 400 study participants females were 63%. Majority of the study participants were Hindu by religion (92%) and majority were found to be educated up to primary level (29.3%). Out of the all the respondents 56% belongs to joint family. As per Modified BG Prasad's Classification (2014) majority

(36%) of the subjects belonged to Socioeconomic Class III (lower Middle).

Table 1: Distribution of the respondents based on socio-demographic profile (n=400)

Class		Frequency(Percentage)
Age Group(in years)	18-40	205(51.3)
	40-60	130(32.5)
	>60	65(16.2)
Sex	Male	148(37)
	Female	252(63)
Religion	Hindu	368(92)
	Muslim	32(8)
Caste	General	74(18.5)
	OBC	64(16)
	SC	82(20.5)
	ST	180(45)
Educational Status	Illiterate	93(23.3)
	Primary	117(29.3)
	Middle	40(10)
	High School	67(16.8)
	Higher Secondary	48(12)
	Graduate and above	35(8.6)
Types of Family	Joint	224(56)
	Nuclear	176(44)
Socio-economic status*	Class I	19(4.8)
	Class II	61(15.3)
	Class III	144(36)
	Class IV	125(31.3)
	Class V	51(12.6)

***Based on Modified BG Prasad Socio-economic status scale (2014)**

Table 2 describes awareness of the study participants on cancer. Out of 400 participants 372(93%) has heard about cancer. All the responses regarding cancer awareness were assessed among those 372 participants who have heard of cancer. Out of 372 participants who have heard of cancer, 54% thinks it to be a disease whereas 30.5% thinks it to be a tumour or swelling in the body. Majority of the total respondents know about Oro-pharyngeal (76%), Lung (61.3) and Breast (56.8) Carcinoma and 82.8 % said that their relatives are the source of information about cancer. Majority (76.3%) thinks tobacco and betelnut (smoking and chewing) to be the cause of cancer. Majority of the study participants do not know whether cancer can spread from one person to another. Among the 69 participants who told that cancer can spread from one person to another, 64 numbers of participants said that direct contact is the route of spread. When asked about the early warning signals of cancer, for majority (25.3%) a swelling or sore that does not get better is the early warning signal followed by persistent cough and hoarseness (19.5%). History taking (59.3%) followed by radiological examination (55%) are the two major modes of diagnosis of cancer as per the response of the participants. Majority (58.5%) said that surgery is the mode of treatment of cancer. Majority (90.3%) have no knowledge regarding the availability of cancer screening procedures. Out of 391 who have heard of cancer, 232 said that there is scope for cancer prevention and 252 said that there is possibility of cancer recurrence. Majority (71.5%) said that cancer is a social stigma. Maximum numbers of participants (46%) were not aware of the availability of adequate treatment facility in Assam for cancer treatment.

Table 2: Responses of the study participants on cancer awareness:

Sl No	Questions	Responses	Numbers of Respondents (in Percentage) n=400
1	Have you heard about cancer?	Yes	372(93)
		No	28(7)
2	What do you think cancer is?	Disease	216(54)
		Tumour or swelling in the body	122(30.5)
		Can't explain	34(8.5)
3	What are the cancers you know?*	Oro-pharyngeal	304(76)
		Digestive Tract	49(12.3)
		Lung	245(61.3)
		Breast	227(56.8)
		Blood	56(14)
		Genito-urinary	101(25.3)
4	What is/are your source of information about cancer?*	Relatives	331(82.8)
		Friends	323(80.8)
		Media(both digital+ print)	276(69)
		Neighbours	175(43.8)
5	What do you think to be the cause/causes of cancer?*	Tobacco & betelnut(smoking & chewing)	305(76.3)
		Food	230(57.5)
		Environmental agent and occupational factors	104(26)
		Familial/genetic factor	86(21.5)
6	Can cancer spread from one person to another?	Yes	69(17.3)
		No	101(25.3)
		Don't know	202(50.5)
7	What is the route of spread of cancer? *	Cough	43(10.8)
		Blood	31(7.8)
		Food and water	48(12)
		Direct contact	64(16)
		Mother to child	16(4)
8	What do you think to be the early warning signals of cancer?*	A lump or hard area in the breast?	67(16.8)
		A change in a wart or mole?	49(12.3)
		A persistent change in digestive and bowel habits	19(4.8)
		A persistent cough or hoarseness	78(19.5)
		Blood loss from any natural orifice	33(8.3)
		Excessive loss of blood at the monthly period or loss of blood outside the usual dates	56(14)
		A swelling or sore that does not get better	101(25.3)
		Unexplained loss of weight	56(14)
9	What is/are the mode of diagnosis of cancer?*	History taking	237(59.3)
		Physical examination	74(18.5)
		Blood investigation	85(21.3)
		Radiological investigation	220(55)
		Biopsy	63(15.8)
		Can't specify	37(9.3)

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10	What is/are the modes of treatment of cancer?*	Surgery	234(58.5)
		Drugs/Chemo-therapy	189(47.3)
		Radiotherapy	26(6.43)
11	Can cancer be cured?	Yes	40(9.5)
		No	199(49.8)
		Yes but with early treatment only	70(17.5)
		Don't know	63(15.8)
12	Do you know that cancer is having some screening procedure?	Yes	11(2.8)
		No	361(90.3)
13	Is there any scope of cancer prevention?	Yes	232(58)
		No	140(35)
14	Is there any possibility of cancer recurrence?	Yes	252(63)
		No	83(20.8)
		Don't know	37(9.3)
15	Is cancer a social stigma?	Yes	286(71.5)
		No	86(21.5)
16	Is there availability of adequate facility in Assam for cancer treatment?	Yes	126(31.5)
		No	184(46)
		Don't know	62(15.5)

***multiple responses**

DISCUSSION:

The present study was aimed at assessing cancer awareness among rural adult population in an area of Kamrup District (Rural), Assam. Majority of the study participants (76%) knew about oro-pharyngeal carcinoma which is contrasting the results of a study done in rural Bangalore population where 12.10% knew about oral cancer or heard of oral cancer.6 Majority (76.3%) thinks tobacco and betelnut (smoking and chewing) to be the cause of cancer which is similar to that of a study conducted among urban slum population of Mumbai.7Regarding the early warning signals of cancer majority (25.3%)said that a swelling or sore that does not get better is the early warning signal followed by persistent cough and hoarseness (19.5%).In study conducted in a population sample of adults in the UK8 revealed that the warning sign that was most well recognized was 'unexplained lump or swelling' (96.6%), followed by 'unexplained bleeding' (89.7%), and 'persistent cough or hoarseness' (69.5%).Maximum number of participants said that history taking(59.3%) is the mode of diagnosis of cancer followed by radiological examination(55%).In a study conducted on cancer awareness among females of urban slums in their reproductive age group in Karnataka9, 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. Out of total 400 participants, 234(58.5) thinks surgery to be the mode of treatment of cancer followed by drugs/chemotherapy (47.3%) which contradicts the finding of a study7 where 42.67% of subjects did not believe in treatment of cancers and many of them shared the belief that cancer is incurable while some had opinion that treatment is too costly to be affordable and is not very effective. In our study also 199(49.8%) participants believe that cancer is non-curable, though it has some treatment modalities. When asked about prevention of cancer majority of the study participants (58%) said that there is scope for cancer prevention which is similar to a study9 conducted among females of urban slums. Though there is availability of tertiary care facility in Assam for cancer treatment maximum number of the study participants (61.5%) were not aware about this.

CONCLUSION:

When few responses of the schedule are concerned, awareness of study participants about cancers was poor. Though majority of the study participants have heard of cancer, 7% still have not heard of it. Moreover 17.3% Participants thinks that cancer can spread from one person to another, 90.3% were not aware of any screening procedure of cancer, 35% didn't know that cancer can be prevented. Out of 400 study participants 246(61%) were still not aware of availability of adequate treatment facility in Assam. There was a need for awareness generation programs like IEC (Information, Education and Communication) activities that should be taken vigorously and on repetitive manner. It also throws light on the need for various public education programmes, particularly using mass media. As the awareness regarding screening procedure is very poor, there is also a need to improve the utilization of screening services for the betterment of the community.

LIMITATIONS:

The spectrum of this community based study is very wide. However since entire work had to be done single handedly and had to be completed within a limited period of time, hence all aspects could not be covered in depth.

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