Cancer Awareness in a Community-Based Study

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ABSTRACT

BACKGROUND

The purpose of this study is to determine the level of awareness of various aspects of cancers among college subjects and evaluate the impact of awareness programs in its prevention and early detection.

METHODS

This clinical study is conducted with the data which was collected from 1000 respondents. Their awareness of cancer risk factors and screening programmes, beliefs about cancer and confidence in discussing cancer, were assessed before a cancer awareness seminar by the questioner. All subjects who agreed to be part of the sample were given the questionnaire to be filled up.

RESULTS

In present study, the commonly known early warning sign of cancer was "unexplained swelling" (59.3 %). Further, although majority knew that cigarette smoking is a risk factor for cancer (88.5 %), very few were aware about the role of inadequate physical activity (9.9 %) and diet devoid of adequate amounts of fruits and vegetables (11.9 %). When asked about the anticipated barriers in seeking help; most respondents believed that they would be embarrassed (85.7 %) or scared (86.5 %).

CONCLUSIONS

Among the risk factors, the most frequently recognized risk factors were smoking and tobacco. Participants showed insufficient knowledge in some areas related to symptoms and signs and risk factors of cancer. Thus, educational interventions need to be emphasized to provide comprehensive information of cancer.

KEYWORDS

Cancer Awareness, Risk Factors, Educational Interventions

BACKGROUND

Cancer also known as a malignant tumor or malignant neoplasm, is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. Not all tumors are cancerous; benign tumors do not spread to other parts of the body. There are over 100 different known cancers known cancers that affect humans.

Cancer is a leading public health problem worldwide. Contributing factors include lack of awareness regarding cancer and improper help seeking behaviour. There are approximately 7.5 million deaths, of which two - thirds are from developing countries.[1] In India, cancer is a leading cause of death next to cardiovascular disease. The age - standardized cancer incidence rate of India, according to Globocan 2018 report, is 89.4 / lakh population (females 90.0 / lakh; males 89.8 / lakh).[2] The cancer incidence is comparatively higher in Chandigarh; according to the Population-Based Cancer Registry report (105 / lakh in women; 93.4 / lakh men).[3]

One can decrease risk of developing specific cancer by less exposing them to some risk factors. Age, smoking, exposure to sun, ionizing radiation, specific chemicals and other substances, some viruses and bacteria, certain hormones, family history of cancer, alcohol, poor diet, lack of physical activity, or being overweight. Over time, several factors can combine to cause normal cells to become cancerous. Cancer is caused by both inherited mutations and lifestyle factors such as smoking, obesity, lack of exercise, and poor diet.[4] Certain infections such as human papilloma virus (HPV) increase the risk of cervical cancer. The objective of the current study was, therefore, to find this in a selected area of Andhra Pradesh.

METHODS

The clinical study is conducted with the data collected from the 1000 respondents. Their awareness of cancer risk factors and screening programmes, beliefs about cancer and confidence in discussing cancer, were assessed before a cancer awareness seminar by the questioner. The study was carried out among the college subjects selected from one of the Engineering Colleges. The aim was to assess the knowledge level regarding signs, symptoms, causes and the perception regarding various aspects of cancer viz. incidence, treatment and myths. All Subjects conveniently agreed to be part of the sample were given questionnaire to be filled up.

The responses were recorded by using a Likert scale. The items were printed in both Telugu and English. Written consent was obtained from all participants. The participants who were conversant in either language were given the form for self - administration. For those without any formal education, the items were read aloud by trained social workers or psychologists. For this analysis, some characteristics of subjects as per questioner prepared.

The collected data was codified and analysed using SPSS software linking the demographic variable to the outcome variable i.e. knowledge level. The knowledge score was computed based on the sum total of identified responses on the specific items of the knowledge.

RESULTS

Characteristics of Subjects	Number of subjects	%
Age of Subjects		
20 - 40 years	690	69
41 - 60 years	243	24.3
> 60 years	67	6.7
Educational Year		0
Degree or higher degree	233	23.3
Higher education qualification below degree	489	48.9
Level or GCSE equivalent (Grade A - C)	112	11.2
O Level or GCSE (Grade D - G)	87	8.7
No formal qualification	79	7.9
Gender		S
Males	550	55
Females	450	45
Socio Economic Status		
Poor	231	23.1
lower middle	263	26.3
Middle	387	38.7
High	119	11.9
Marital Status		
Married	450	45
Unmarried	346	34.6
Divorced	128	12.8
Civil partnership	21	2.1
Married separated	55	5.5
Table 1. Details of the Study Participants		

A - Levels or higher ONC / BTEC -- Still studying

Mean age of the study participants was 32.8 years (SD = 13.4). Of the 1000 interviewed study participants, 550 (55 %) were male. The majority of the study participants were literate (83.4 %). Most of the participates belong to lower and middle class of respondents 65 %. Majority of them are married with 45 %.

Factors That Can Increase a Person's Chance of Developing Cancer	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Smoking any cigarettes at all	3 (0.3 %)	5 (5 %)	107 (10.7 %)	226 (22.6 %)	659 (65.9 %)
Exposure to another person's cigarette smoke	15 (1.5 %)	21 (2.1 %)	143 (14.3 %)	339 (33.9 %)	482 (48.2 %)
Drinking more than 1 unit of alcohol a day	24 (2.4 %)	63 (6.3 %)	196 (19.6 %)	287 (28.7 %)	430 (43 %)
Eating less than 5 portions of fruit and vegetables a day	64 (6.4 %)	198 (19.8 %)	423 (42.3 %)	92 (9.2 %)	23 (2.3 %)
Eating red or processed meat once a day or more	49 (4.9 %)	118 (11.8 %)	698 (69.8 %)	110 (11 %)	225 (22.5 %)
Being overweight (BMI over 25)	35 (3.5 %)	145 (14.5 %)	585 (58.5 %)	198 (19.8 %)	37 (3.7 %)
Getting sunburnt more than once as a child	38 (3.8 %)	124 (12.4 %)	689 (68.9 %)	111 (11.1 %)	38 (3.8 %)
Being over 70 years old	27 (2.7 %)	165 (16.5 %)	493 (49.3 %)	254 (25.4 %)	61 (6.1 %)
Having a close relative with cancer	42 (4.2 %)	132 (13.2 %)	541 (54.1 %)	236 (23.6 %)	49 (4.9 %)
Infection with HPV (Human Papillomavirus)	21 (2.1 %)	41 (4.1 %)	771 (77.1 %)	128 (12.8 %)	39 (3.9 %)
Doing less than 30 mins of moderate physical activity 5 times a week	49 (4.9 %)	161 (16.1 %)	691 (69.1 %)	72 (7.2 %)	27 (2.7)
Table 2. How Many Subjects Agree That Each of These Can Increase a Person's Chance of Developing Cancer?					

Among the risk factors, the most frequently recognized risk factors were smoking tobacco (88.5 %; [agree 22.6 % and strongly agree 65.9 %]) followed by exposure to second-hand cigarette smoke (81.1 %; [agree 33.9 % and strongly agree 48.2 %), and drinking alcohol (71 %; [agree 28.7 % and strongly agree 43 %]). Having an unhealthy diet with five portions of fruits and vegetables (11.9 %; [agree 9.8 % and strongly agree 2.1 %]). Around one - third knew that being overweight (33.5 %) and age >70 can lead to cancer (31.5 %). Only 16.7 % (agree 12.8 % and strongly agree 3.9 %) agreed that infection with HPV can lead to cancer. The least recognized risk factors were inadequate physical activity (9.9 %; [agree 7.2 % and strongly agree 2.7 %).

| Warning Signs of Cancer	Yes	No	Don't Know
Do you think an unexplained lump or swelling could be a sign of cancer?	593 (59.3 %)	111 (11.1 %)	296 (29.6 %)
Do you think persistent unexplained pain could be a sign of cancer?	407 (40.7 %)	161 (16.1 %)	432 (43.2 %)
Do you think unexplained bleeding could be a sign of cancer?	507 (50.7 %)	157 (15.7 %)	336 (33.6 %)
Do you think a persistent cough or hoarseness could be a sign of cancer?	489 (48.9 %)	185 (18.5 %)	326 (32.6 %)
Do you think a persistent change in bowel or bladder habits could be a sign of cancer?	491 (49.1 %)	183 (18.3 %)	326 (32.6 %)
Do you think persistent difficulty swallowing could be a sign of cancer?	526 (52.6 %)	124 (12.4 %)	350 (35 %)
Do you think a change in the appearance of a mole could be a sign of cancer?	236 (23.6 %)	200 (20 %)	564 (56.4 %)
Do you think a sore that does not heal could be a sign of cancer?	342 (34.2 %)	191 (19.1 %)	467 (46.7 %)
Do you think unexplained weight loss could be a sign of cancer?	334 (33.4 %)	197 (19.7 %)	469 (46.9 %)
Table 3. Warning Signs of Cancer			

Around half of the respondents thought that unexplained lump (59.3 %), persistent unexplained pain (40.7 %), unexplained bleeding (50.7, persistent cough or hoarseness of voice (48.9 %) persistent difficulty in swallowing (52.6 %), persistent change in bowel habits (49.1 %) and could be early warning signs of cancer. Around one - third felt that sore that does not heal (34.2 %) and unexplained weight losses (33.4 %) are the early warning signs of cancer. A few respondents opined that and change in the appearance of mole (23.6 %) could also be indicative of cancer.

Why Do People Avoid Going to Doctor	Yes Often	Yes Sometimes	No	Don't Know
I would be too embarrassed	45 (4.5 %)	73 (7.3 %)	857 (85.7 %)	25 (2.5 %)
I would be too scared	46 (4.6 %)	76 (7.6 %)	865 (86.5 %)	13 (1.3 %)
I would be worried about wasting the doctor's time	18 (1.8 %)	56 (5.6 %)	909 (90.9)	16 (1.6 %)
My doctor would be difficult to talk to	16 (1.6 %)	59 (5.9 %)	911 (91.1 %)	14 (1.4 %)
It would be difficult to make an appointment with my doctor	19 (1.9 %)	70 (7 %)	896 (89.6 %)	15 (1.5 %)
I would be too busy to make time to go to the doctor	37 (3.7 %)	100 (10 %)	845 (84.5 %)	18 (1.8 %)
I have too many other things to worry about	64 (6.4 %)	77 (7.7 %)	838 (83.8 %)	21 (2.1 %)
It would be difficult for me to arrange transport to the doctor's surgery	32 (3.2 %)	67 (6.7 %)	884 (88.4 %)	17 (1.7 %)
I would be worried about what the doctor might find	43 (4.3 %)	65 (6.5 %)	876 (87.6 %)	16 (1.6 %)
I wouldn't feel confident talking about my symptom with the doctor	16 (1.6 %)	76 (7.6 %)	887 (88.7%)	21 (2.1 %)
Table 4. Reasons Why People Avoid Going to Doctor				

When asked about the anticipated barriers in seeking help; most respondents believe that they would be embarrassed (85.7 %) or scared (86.5 %). Most of them opined that it would not be difficult to talk with a doctor (91.1 %), take appointment (89.6 %), or arrange transport for going to him/her (88.4 %).

Table 5. Knowledge Score Classification
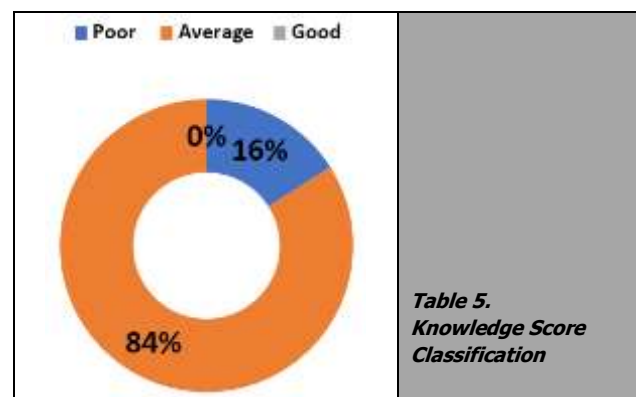
The above table shows that majority of students eighty six percent (84 %) have average knowledge score, sixteen percent of them found to have poor knowledge score while none of them scored "good" on knowledge score.

DISCUSSION

Knowledge about cancer and perception towards cancer varied across different categories of people. People with higher education, younger age, male sex, personal experience with cancer (as either a patient or a caregiver), and HSES had increased awareness about cancer. Similar studies from other health institutions would provide an insight regarding the same and could be a base for formulating a uniform curriculum in the implementation of knowledge regarding oral cancer. The finding has shown that the Educational level has a significance influence on cancer spreading in Tamilnadu. We will wish to recommend you on increasing the level on interesting of cancer disease information. We feel that we must consult an experienced physician for a thorough examination and advice if any suspicious sign or symptoms are observed. Delay can cause the death. Therefore such delay is very dangerous.

In our study, cigarette smoking was the most known risk factor followed by second-hand smoke and alcohol intake. Only few were aware of the role of inadequate physical activity and having a diet devoid of adequate amounts of fruits and vegetables in cancer prevention, present study findings are similar to study of Sharma D et al and Veerakumar et al.[5] In their study reported that most of the respondents attributed smoking to be a risk factor of cancer with very few knowing the fact that unhealth diet can be a predisposing factor. Poudel et al.[6] in their study among Nepalese adults reported that half of the study respondents were aware that inadequate physical exercise can be risk factor for cancer. Further, around one fifth knew that unhealthy diet is a risk factor for cancer.[6] In our study, only 16.7 % of the study participants were aware that infection with HPV can lead to cancer. Improper awareness about HPV as a risk factor for cancer has been reported in other studies.[7,8,9] In our study, around one - third were aware that

overweight is a risk factor for cancer. Similar to this finding, Ryan et al. studied Irish adults and reported that only 33.5 % of the public were aware that obesity is a risk factor of cancer.[10] Although statistically there was no significant correlation found between knowledge level of students and education of their parents. But general trend makes it clear that even in well - educated family, youth are not well aware of disease like cancer. This suggests that formal education system does not include contents to educate masses on such dreadful disease.

It was seen that youth were also not well aware of the warning signals of cancer. This shows that family in general are not able to identify the initial symptoms and hence the stage get advanced by the time patient approach a doctor. It was seen that youth were also not well aware of the warning signals of cancer. This shows that family in general are not able to identify the initial symptoms and hence the stage get advanced by the time patient approach a doctor.

Cancers are preventable if people are aware of their early warning signs and associated risk factors.[11] Research has shown that people lack awareness regarding cancer. Feizi et al. in a study conducted in Iran reported that a few respondents had adequate level of knowledge about cancer.[12] Ryan et al. in their study among Irish adults documented poor awareness of risk factors for cancer.[10] Babu and Thomas observed a low level of awareness of cancer warning signs among the rural population of Kerala, India.[13]

CONCLUSIONS

In our study, among the risk factors, the most frequently recognized risk factor was smoking tobacco. While people seem to be highly aware of risks to cancer especially those pertaining to smoking, they were also significantly less aware about some other agents that have the same carcinogenic potentials. The study points to the insufficient knowledge of the participants in some areas of knowledge related to signs and symptoms and barriers of cancer. Accordingly, relevant educational programs with the aim of improving the knowledge level of participants regarding cancer are needed considering the high prevalence of cancer. At the same time, there is a need for regular update courses for health staff, especially nurses about cancer education and various screening methods.

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