

# **AWARENESS LEVEL ABOUT CANCER AMONG COLLEGE YOUTH**

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## **ABSTRACT**

The present paper aims to examine the awareness level of college youth about cancer. It extends its scope to study the perception of college students about the disease like cancer. The present research studied a sample of 100 students drawn using non- probability sampling techniques. The students responded to a questionnaire which had close ended questions to seek the knowledge and perception of students about various aspects of cancer. The study reflected the overall low level of knowledge among the college youth on various aspects of cancer. The knowledge score classification shows that none of the respondents qualified for “good knowledge score”, they all fall on the average line. The general awareness about the disease, which should act as benchmark for initiation of further improvement measures was not good. 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. This study emphasize the need of strong knowledge base about cancer, there is urgent need of countrywide information, education and communication campaign about cancer so that general population can easily identify the initial symptoms of the disease.

## INTRODUCTION

Cancer has become one of the main health problems in the present era. Cancer has become one of the ten leading causes of death in India. It is estimated that there are nearly 15 – 2 million cancer cases at any given point of time. Over 7 lakh new cases of cancer and 3 lakh death occur annually due to cancer (*WHO 2002, NCCP*).

The burden of cancer in India is on rise and the recent cancer registry report still shows the same striking findings as shown in the first cancer registry report i.e. 75 – 80 percent of all cancer cases are presented at advanced stages. This shows that even after more than two decades of extensive work there has not been remarkable changes in the incidence graph (*NCRP, 2006*).

The rising incidence of cancer in all age groups make the fight against cancer complicated, which further get complexed due to a number of known and unknown causative factors. Although it is true that any single factor can not be identified as the causative factor for the development of cancer in human body nevertheless it is widely accepted that our life styles (eating habits, tobacco use and environmental pollution) predispose us to certain cancers.

Tobacco is the single most important identified risk factor for cancer. A host of other environmental exposures, certain infections as well as genetic predisposition play an important role in carcinogenesis (*Nair, Varghese, Swaminathan, 2008*).

On the basis of 7 Cancer registries namely Bangalore, Barshi, Bhopal, Chennai, Delhi, Mumbai, and Ahmedabad it is calculated that on an average tobacco related cancers account for 42 percent of all cancers among male and 14.7 percent among female. The International Agency for Research on Cancer Monograph report 2004 states that there are now sufficient evidence to establish a causal association between cigarette smoking and cancer of the nasal cavities and nasal sinuses, esophagus, stomach, liver, kidney, uterine cervix and myeloid leukemia (*NCRP, 2006*).

**Table 1: Percentage of cancer death in the age group of 35-64 years caused by various factors**

<b>Factors</b>	<b>Percentage distribution</b>
<b>Tobacco</b>	30-40
<b>Alcohol</b>	3-10
<b>Occupation</b>	6-8
<b>Pollution</b>	2
<b>Industrial products</b>	1
<b>Medicines and medical procedures</b>	1
<b>Diet</b>	Not known

*Source: Swaminathan, Varghese, Nair, 2008*

### **Role of knowledge**

The control of cancer requires the effective implementation of knowledge derived from more than two decades of successful research. It is now known that over one third of cancers are preventable and one third potentially curable provided they are diagnosed early in their course. The carcinogenic agents that people breathe, eat, drink and are otherwise exposed to, largely determine the occurrence of the disease. Personal habits such as the use of tobacco play a key role. People develop such habits in response to the social circumstances of life. Thus, the social origin of lifestyle must be considered in cancer prevention. Oral cancers can be diagnosed early and treated successfully. The most common female cancers namely cancer of cervix and breast can be screened, prevented and treated.

At least 30 percent of the future cancer burden is potentially preventable by tobacco control. The spread of tobacco addiction promoted by commercial interests in the world contribute to the lung cancer epidemic that is already taking hundreds of thousands of lives annually. Unless checked, cigarettes will in the next decade cause more than one crore deaths from cancer. Action is also

possible on dietary modification. Evidence suggests that excessive fat in the diet may induce some cancers and that whole grains, vegetables and fruits are protective in nature. The same diet that lowers the risk of cardiovascular disease may inhibit the development of diet associated cancers.

Infections with certain viruses are associated with cancer, for example liver cancer and the hepatitis B virus, cancer of cervix and the human papilloman virus. Hepatitis B vaccination can be undertaken in regions where the prevalence of chronic carriers exceeds 10 percent.

If cancer can be detected early, treatment may be curative. One means to that end is educating people regarding early signs of the disease. In 1970s the Government of India designed primary and secondary prevention strategies for the control of cancer. The major thrust area of cancer control programme included – public education, treatment, palliative care and training facilities for human resource development. Under the National Cancer Control Programme such efforts were envisaged to be carried out through the district cancer control projects for educating the people about the sign, symptoms and early identification of most common cancers. In 2001 a separate cadre of non communicable disease workers for educating the people about various aspects of common cancers were introduced in the delivery system of National Cancer Control Programme.

Keeping the same as the reference, the present study was planned to assess the awareness level and perception of the college students. Youth in any society is a viable resource; they have the tremendous power to bring change. If youth will be well educated about such serious problems, it will automatically filter to a larger population through their social network. The studies in this context in Indian scenario are very rare.

## **METHODOLOGY**

The study was carried out among the college students selected from one of the college of University of Delhi. 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. A sample of 100 respondents was studied for the purpose of present research (n=100). The sample was drawn using non probability sampling techniques in two stages. In the first stage, one of the colleges of University of Delhi was selected conveniently. In the second stage, a

sample of 1/10<sup>th</sup> proportion of the total strength of the college (160/1600) was decided to be studied. Students who conveniently agreed to be part of the sample were given questionnaire to be filled up. A total of 119 filled up questionnaires were received back, out of these 19 questionnaires had to be dropped because of being incomplete leaving the sample size to 100. 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

Thirty nine percent of study participants were studying in the final year of their degree programme, another thirty three in first year while rest twenty eight were in second year. Sixty percent of study participants were female while forty percent were male. Seventy five percent (75%) of them belong to nuclear family while twenty five percent(25%) belonged to joint family. The majority of respondents (87%) were from middle class.

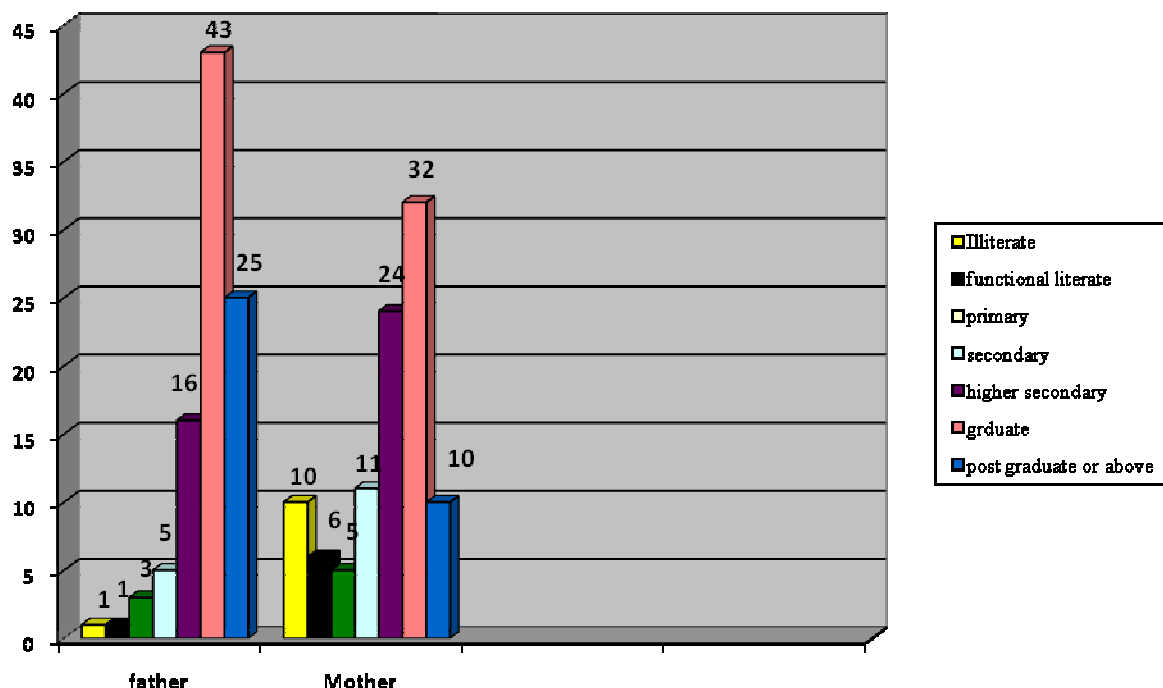
**Table 2: Profile of the respondents**

Respondent's characteristics	Number of respondents N=100
<b>Educational Year</b>	
<b>I</b>	33
<b>II</b>	28
<b>III</b>	39
<b>Gender</b>	
<b>Male</b>	40
<b>Female</b>	60
<b>Family type</b>	
<b>Nuclear</b>	75
<b>Joint</b>	25
<b>Socio economic status</b>	
<b>Poor</b>	2
<b>Lower middle</b>	6
<b>Middle</b>	87
<b>High</b>	5

The graph given below represents the educational status of parents of the respondents. In majority of cases both father and mother were graduate (43 % & 32% respectively). Twenty five

percent of father and ten percent of mother were postgraduate or even above that. In one fourth of the cases mothers studied up to higher secondary level. In very few cases parents studied below primary level (father 4%, mother 21%). The results thus show that in majority of cases respondents belong to well educated family.

**Figure 1 Educational status of parents**



**Table 3: History of cancer to a known person**

Relation to a known person	Number of respondents
Family member	7
Friends	1
Relatives	16
Any other	14
Not applicable	62

In order to examine the familiarity of the respondents with the disease, they were asked if any know person to them had cancer. In 62 percent of cases, respondents did not see any known person suffering from cancer suggesting that in majority of cases only the information through communication channels contributed to the knowledge level of students and experience of being with a cancer patient did not play a major role in that.

**Table 4: Knowledge about the causes of cancer**

Causes of cancer	Responses of students (%)		
	Yes	No	Don't know
Irregularity in eating causes cancer of stomach	8	66	26
Use of alcohol causes cancer	72	20	8
Use of tobacco causes cancer	94	3	3
Sharp teeth may cause cancer	12	60	28
Ill-fitted denture resulting in wounds in gums/ teeth	26	25	49
Eating hot food causes cancer	7	61	32
Eating spicy / junk food causes cancer	20	58	22
Eating non-veg food cause cancer	10	62	28
Cancer is a blood disease	50	25	25
Cancer is hereditary	20	48	32

The respondents were given a list of probable causes combined with those factors which are not established causes of cancer. They were asked to mark their responses as “Yes” or “No” if they are sure of it. In case, they were not sure, they may choose “Don’t know”.

The above table shows that though majority of respondents (94%) were aware of tobacco use as a cause of cancer but only seventy percent (72%) of respondents mentioned that alcohol usage may cause cancer. The role of sharp teeth and ill fitted denture as causative agents for cancer was not clear to majority of respondents. Only twelve percent (12%) feel that sharp teeth and another twenty six (26%) felt that ill-fitted denture may result in cancer. Though there are no scientific evidences to show that irregularity in eating causes cancer but eight percent (8%) feel that it surely causes cancer and another twenty six percent (26%) did not know about this. Though there is little evidence that the temperature of hot food is an important factor in development of cancer but too hot food has been correlated with food pipe cancer. But respondents were seemed to be unaware of that as only seven percent (7%) said that it may cause cancer. Eating spicy food may be related to stomach cancer as is evident from its high incidence in southern parts of India (*NCRP, 2006*), but respondent were again not aware of this causative factor as only twenty two percent (22%) felt that it may be one of the reason of cancer. The same was the case with non-veg food for which only ten percent (10%) felt that it may cause cancer. Fifty percent of respondents felt that cancer is a blood disease and another twenty two percent (20%) felt that it is inherited.

**Table 5: Respondents’ knowledge about the maximum year of life of a cancer patient**

<b>Duration of life</b>	<b>Number of respondents</b>
<b>Less than 6 months</b>	3
<b>6 months – 1 year</b>	10
<b>1 year – 5 years</b>	28
<b>5 – 10 years</b>	11
<b>More than 10 years</b>	5
<b>Depends upon stage, type and treatment</b>	20



In response to duration of life for a person who had cancer, only twenty percent (20%) mentioned that it depends upon stage, type and treatment. The rest eighty percent (80%) attempted to make a guess of the same for different time period.

**Table 6: Respondents' knowledge about symptoms of cancer**

<b>Symptoms / sign of cancer</b>	<b>Yes</b>	<b>No</b>	<b>Don't know</b>
<b>Change in bowel or bladder habits</b>	30	20	50
<b>A sore that does not heal</b>	32	26	42
<b>Unusual vaginal bleeding especially in post menopausal women</b>	30	23	47
<b>Thickening or lump in breast or elsewhere</b>	65	8	27
<b>Indigestion or difficulty in swallowing</b>	38	28	34
<b>Obvious change in wart or mole</b>	19	26	55
<b>Nagging change or hoarseness of voice</b>	26	33	41
<b>Prolonged and frequent fever</b>	31	36	33
<b>Unusual weight loss or gain</b>	55	20	25
<b>Cracking of skin</b>	40	27	33
<b>Blackening/ darkening of skin</b>	36	32	32
<b>Hair loss / hair fall</b>	50	25	25
<b>Loss of appetite</b>	46	16	38

Change in bowel or bladder habits as a symptom of cancer was mentioned by thirty percent (30%) of respondents, non-healing ulcer by thirty two percent (32%), unusual bleeding especially for postmenopausal women by thirty percent (30%), lump in breast or elsewhere by sixty five percent (65%), indigestion or difficulty in swallowing by thirty eight percent (38%), obvious change in wart/mole by 19 percent, and nagging cough or hoarseness of voice by twenty six percent (26%) of the respondents. This shows that a big majority of college youth is unaware of main warning signs of cancer; they can relate it only with apparent lump. It was interesting to see that respondents were not clear about the actual signs / symptoms of cancer as the other conditions (not the symptoms of cancer) like unusual weight loss/gain, cracking of skin, blackening/darkening of skin, hair loss and loss of appetite received higher percentage of response.

**Table 7: Respondent’s knowledge about age group being more prone to cancer**

<b>Age group</b>	<b>Number of respondents</b>
<b>Child</b>	-
<b>Youngsters</b>	4
<b>Adults</b>	17
<b>Elderly</b>	17
<b>Anybody</b>	62

A big majority sixty two percent (62%) felt that cancer can occur in any age group, but 17 percent of respondents opined each for adults and elderly being the more prone age group for cancer. None of the respondents mentioned that a child can be prone to cancer.

**Table 8 : Respondents' perception about cancer**

<b>Perception about cancer</b>	<b>Never</b>	<b>Rarely</b>	<b>Very high chances</b>	<b>Always</b>	<b>Don't know</b>
<b>Cancer is infectious</b>	46	29	10	13	2
<b>Cancer is fatal</b>	18	14	24	42	2
<b>Cancer is incurable</b>	26	35	34	4	1
<b>Cancer is caused by a germ</b>	49	22	10	17	2
<b>Cancer can be transmitted by kissing or casual contact</b>	65	6	6	20	3
<b>Piles may turn into cancer</b>	34	31	22	10	3
<b>Tumor / lump can be cancerous</b>	10	20	34	35	1
<b>If a parent dies of cancer, the children are more likely to have the disease</b>	47	38	9	6	-
<b>Religious healers and quacks help cure cancer</b>	77	10	4	7	2

A big majority forty six (46%) opined that cancer is never infectious while the rest fifty two percent (52%) felt that it is infectious to some degree. Forty two percent of respondents felt that cancer is always fatal. It was interesting to note that approximately 1/4<sup>th</sup> of the sample opined that cancer is curable, whereas thirty eight percent (38%) in total felt that cancer is incurable (either always or very high chances of the same). Twenty seven percent (27%) of respondents opined that cancer is either always caused by a germ or there are very high chances of the same. Though 65 percent of respondents mentioned that cancer can never be caused by casual contact like kissing, but it is worth mentioning here that six percent (6%) opined there are chances of the same, though rare. Another six percent (6%) felt that there are very high chances of cancer being

transmitted through casual contact like kissing whereas twenty percent (20%) felt that such casual contact can always transmit cancer.

A big majority of respondents sixty three (63%) felt that piles may turn into cancer. Thirty five percent (35%) of the sample opined that tumors are always cancerous and the almost equal percent (34%) felt that there are very high chances of tumour being cancerous. Fifteen percent (15%) of respondents felt that if parents die of cancer, children either always have cancer or there are very high chances of the same. Though a big majority seventy seven percent (77%) felt that religious healers can never help cure cancer but twenty one percent (21%) felt that quacks may play some role to help cure cancer.

**Table 9: Knowledge score classification**

<b>Knowledge score</b>	<b>Number of students</b>
Poor	14
Average	86
Good	0

The above table shows that majority of students eighty six percent (86%) have average knowledge score, fourteen percent of them found to have poor knowledge score while none of them scored “good” on knowledge score.

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.

## **DISCUSSION**

The study reflected the overall low level of knowledge among the college youth on various aspects of cancer. The knowledge score classification shows that none of the respondents

qualified for “good knowledge score”, they all fall on the average line. The general awareness about the disease, which should act as benchmark for initiation of further improvement measures was not good. Fifty two percent (52%) felt that cancer is infectious, thirty eight percent (38%) felt it is incurable and thirty two (32%) felt that it can be transmitted through casual contacts. Fifty three (53%) percent felt if parents die of cancer, children are more likely to have the 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. The statistics also suggests that 75 - 80 percent of all cancers are reported in advanced stage (*NCRP, 2006*).

The strength of the study lies in the selection of the study population i.e. youth, as they are the main source of information carriers and dissemination. This emphasize that if they have strong knowledge base about the disease, the same will also be transferred to public at large. There is urgent need of countrywide information; education and communication campaign about cancer so that general population can easily identify the initial symptoms of the disease. The knowledge about the possible causes of cancer may bring behavioural change among the masses cutting short the possibility of risk behaviour.

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