

RESEARCH ARTICLE

Awareness and attitude of medical student's towards cancer

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ABSTRACT

Methods and Material: This study was conducted amongst Three hundred and thirteen medical students from four batches [first-year, second-juniors, second-seniors, and third-year] in Government Medical College, Chennai. A questionnaire containing twenty questions which included fourteen awareness and six opinion questions was used. The purpose of the study was explained. They were asked to mark the most appropriate answer from the options provided. The data was statistically analysed. **Statistical analysis used:** Pearson chi square test **Results:** From the analysis, it was found that on an average, first-year and second-juniors had 65% awareness compared to 83% awareness among second-seniors and third-years. About 94% of the students were of the opinion that cancer facts should be elaborately discussed in high school. Regarding implementation of euthanasia during the terminal stages, there was a mixed response with about 54% students being in favor of it. **Conclusions:** This study enhances the fact that medical curriculum plays an important role in imparting knowledge. So, if students were provided with adequate information about cancer during their first-year, it would help in spreading cancer awareness and early detection, treatment reduce the incidence and assist cancer prevention.

Key words: Awareness, Attitude, Knowledge, Cancer.

Key Messages: From this study, the medical curriculum plays an vital role in knowledge of students and also providing of adequate information about cancer during their first-year, it would help in spreading cancer awareness and early detection, treatment, reduce the incidence and assist cancer prevention and treatment.

INTRODUCTION:

Cancer, from a latin word meaning crab. "A cancer is an abnormal mass of tissue, the growth exceeds that of the normal tissues and persists after cessation of the stimuli"- British oncologist Willis.¹ According to World Health Organization (WHO): Cancer is a leading cause of death worldwide: 7.9 million deaths (around 13%) in 2007. Deaths from cancer worldwide with an estimated 12 million deaths in 2030.² To know cancer awareness and the attitude and knowledge of the medical students towards cancer. This study was conducted to assess awareness, attitude, and knowledge of medical students in our govt. medical college.

SUBJECTS AND METHODS:

Three hundred and thirteen medical students from four batches [first-year, second-juniors, second-seniors, third-year] in Government Medical College, Chennai

A questionnaire containing twenty questions which included fourteen awareness and six opinion questions were used.

The following parameters were considered in our statistical analysis of cancer awareness amongst the medical students of various batches of Govt. Medical College:

1. Question wise Awareness
2. Year wise Awareness
3. Association between Year of Study and Awareness.
4. Association between Family H/O Cancer and Awareness.
5. Association between Year of Study and Attitude.
6. Association between Family H/O Cancer and Attitude.

RESULTS:**Table1: question wise awareness**

Sr. No	Questions	No. of students (n=313)	Percentage
1	Which is the commonest site of cancer?	165	52.7%
2	Which cancer is common among women?	281	89.8%
3	Which cancer is common among men?	126	40.3%
4	Can cancer affect people less than thirty years?	283	90.4%
5	Is pain common during early stages of cancer?	268	85.6%
6	Is cancer, a self-limiting disease?	279	89.1%
7	Do benign tumors always proceed to malignancy?	238	76.0%
8	Once cured, can cancer recur?	278	88.8%
9	Can cancer be contagious?	269	85.9%
10	The commonest route for cancer spread is by?	242	77.3%
11	First bacteria classified as carcinogen:	182	58.1%
12	Which type of U.V. radiation is most potent in causing skin cancer?	188	60.1%
13	Which blood group people are more susceptible to cancer?	110	35.1%
14	Which is the most commonest cause of cancer?	262	83.7%
	TOTAL:	227	72.4%

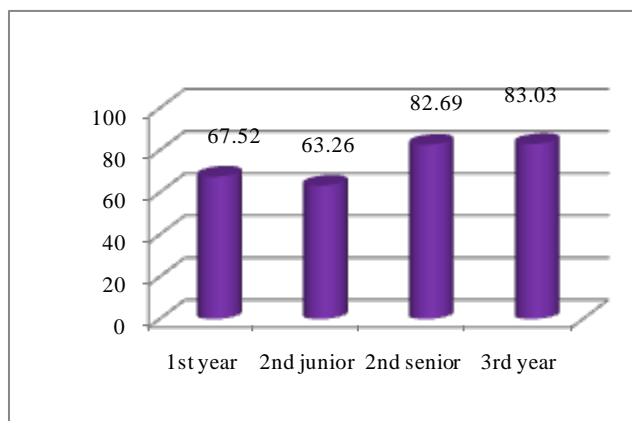
For the 14 awareness questions given, the students showed a maximum awareness of 90.4% and a minimum awareness of 35.1% with an average awareness of 72.4%.

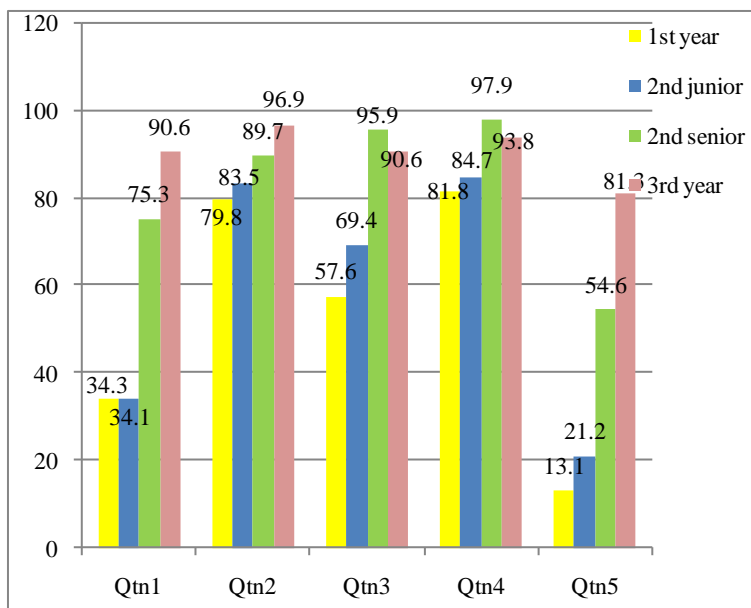
Table 2: year wise awareness

Year of Study	Total No. Students	Total No. of Questions Asked	Percentage of Awareness
I year	99	14	67.52
II year junior	85	14	63.26
II year senior	97	14	82.69
III year	32	14	83.03

When yearwise awareness was considered, it was found that the 2nd year seniors and 3rd years had more levels of awareness compared to the 1st years and 2nd juniors

showing that 2nd year served as a junction where transition occurred and students gained more knowledge.

**Graph 1:**



Graph 2: association between year of study and awareness

Five questions that showed significant awareness (with chi-square test) were considered. It was found again that the 2ndseniors and 3rdyears who were well into the clinical side, were more aware compared to the 1st years

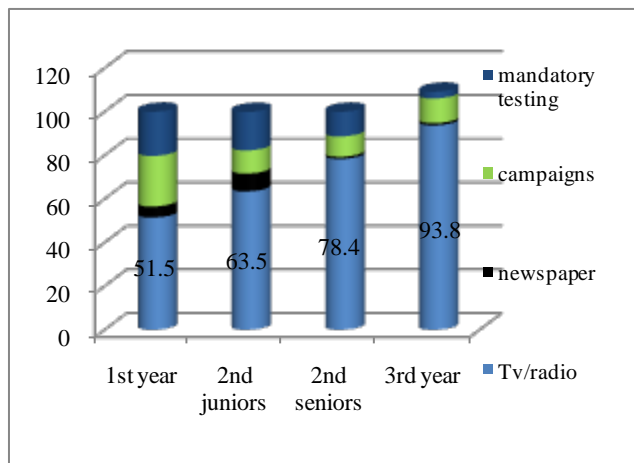
who did not have any dinical exposure and the 2nd juniors who had just entered the clinical phase. Thus, stating that awareness comes along with clinical exposure and simultaneous inculcation of the facts of cancer.

Table3: association between year of study and attitude

		Year of study								n	Pearson chi square test
		I year		II junior		II Senior		III year			
		n	%	n	%	n	%	n	%		
Should facts about cancer be explained elaborately in high school?	No	8	8.1%	11	12.9%	3	3.1%			22	$\chi^2=9.43$ P=0.02*
	Yes	91	91.9%	74	87.1%	94	96.9%	32	100.0%	291	
Should a person be allowed to demand divorce if spouse is diagnosed with cancer?	No	83	83.8%	64	75.3%	88	90.7%	32	100.0%	267	$\chi^2= 14.74$ P= 0.002 **
	Yes	16	16.2%	21	24.7%	9	9.3%			46	
Should euthanasia (Mercy Killing) be encouraged if patient is in terminal stages?	No	54	54.5%	29	34.1%	40	41.2%	17	53.1%	140	$\chi^2= 9.12$ P= 0.02*
	Yes	45	45.5%	56	65.9%	57	58.8%	15	46.9%	173	
Which do you think is the best vehide for spreading cancer awareness?	TV/Radio	51	51.5%	54	63.5%	76	78.4%	30	93.8%	211	$\chi^2= 33.83$ P= 0.001***
	News paper	5	5.1%	7	8.2%	1	1.0%	1	3.1%	14	
	Campaigns	23	23.2%	9	10.6%	9	9.3%			41	
	Mandatory testing	20	20.2%	15	17.6%	11	11.3%	1	3.1%	47	

When the attitude of the students was considered, it was found that more than 85% of the students from each year wanted cancer facts to be elaborately discussed in high school in order to help spread community based awareness. When euthanasia was asked about, it was

found that 54% of the students were in favor of it, which was not convincing enough because there was much variation in each year of study. Television was considered the best vehicle for awareness campaigns by the majority of the students in each year.



Graph 3:

Table 4: association between family h/o cancer and attitude

		Family H/o cancer				Total	Pearson chi square test
		No		yes			
		n	%	n	%		
Should facts about cancer be explained elaborately in high school?	No	21	7.9%	1	2.1%	22	$\chi^2=2.02$ P=0.15
	Yes	245	92.1%	46	97.9%	291	
Should a person be allowed to demand divorce if spouse is diagnosed with cancer?	No	222	83.5%	45	95.7%	267	$\chi^2=4.81$ P=0.03*
	Yes	44	16.5%	2	4.3%	46	
Should euthanasia (Mercy Killing) be encouraged if patient is in terminal stages?	No	127	47.7%	13	27.7%	140	$\chi^2=6.51$ P=0.01**
	Yes	139	52.3%	34	72.3%	173	
Which do you think is the best vehicle for spreading cancer awareness?	TV/Radio	183	68.8%	28	59.6%	211	$\chi^2=2.08$ P=0.55
	News paper	12	4.5%	2	4.3%	14	
	Campaigns	34	12.8%	7	14.9%	41	
	Mandatory testing programs	37	13.9%	10	21.3%	47	

Irrespective of the family history, more than 90% of the students felt that cancer facts should be elaborately discussed in high school. Majority of the students were opposed to demanding divorce if the spouse was diagnosed with cancer. Even though more than 50% of the students without family history of cancer were in favour of

euthanasia, more than 70% of those with family history of cancer were in favour of it, indicating that the experience with their family had prompted a rise in favour of euthanasia. Television by large was chosen as the best means of spreading awareness campaign about cancer.

DISCUSSION:

Among the various questions based on awareness on cancer, 90% of students had adequate knowledge that cancer can affect people less than 30 years. Awareness about cancer showed increase in percentile- 68% in 1st year, 63% in 2nd year, 83% in 3rd year as their curriculum progressed. Medical students in UK opined for early detection of cancer.³

There was a significant difference in the p value in the commonest site affected by cancer. $P=0.001$ (when asked about commonest site of tumor), the p value of 0.05 was a feature of pain being a common symptom of early cancer, their chances of benign tumor turning into malignancy showed a significant p value of 0.001, recurrence of cancer once cured showed p value of 0.002 and the p value of 0.001 was highly significant in cancer patients with blood group A. Blood Type (especially Type A) predisposes people to certain types of cancer.⁴

Association between family history of cancer p value- 0.05 significant in benign tumor turning into malignancy and once cured cancer can recur, here the p value is 0.03, and it is significant.

Association between year of study and attitude, 85% of students wanted education about cancer to be discussed in high school. 54% of students were in favour or euthanasia. 94% thought that television was the best media for creating awareness. Irrespective of family history of cancer, when asked whether facts about cancer should be explained in high school- 92% agreed.

CONCLUSION:

The latter part of the last millennium was a period of new discoveries in science and medicine, with a new understanding of the cause and treatment of cancer in general.⁵

In more developed regions, the top three cancers diagnosed in men are prostate followed by lung and bowel, while in women the most common cancer is breast cancer, followed by bowel and lung.⁶ In less developed regions, lung cancer is the most common, followed by stomach and liver cancers in men. In women, breast cancer is the most common, followed by cervix and lung cancers.⁷ Cancer in 19 years old represents about 1% of all new cancers in the USA. 5-yr survival rates-56% in 1974 to >81% in 2000.⁸ Dental students listed tobacco and alcohol use as main risk factors for oral squamous cell carcinoma.⁹

The total burden of lung cancer in any country is directly related to the amount and duration of cigarette smoking.¹⁰ Cigarette smoking is directly responsible for 90% of lung carcinoma.¹¹ However, with excessive dependence on tobacco in the early adolescence and changing lifestyle, lung cancer will surpass breast cancer as the most common fatal cancer among the western women

in the next 10 years.¹² In terms of incidence, the most common cancers worldwide are lung cancer[12.3%] and breast cancer[10.4%].¹³ United states medical students insisted about early screening of Lynch syndrome.¹⁴ The medical students of today are the future of the medical fraternity of India tomorrow. The level of awareness among them, therefore, to some extent helps to forecast how prepared the country is in taking upon the challenges in the medical arena. Little has been done to know about the level of awareness and attitude of medical students towards cancer in particular and this project is a humble attempt towards throwing light on the same.

Developed countries have reduced cancer mortality through awareness programmes, early screening and vaccination against cancer causing infections and access to new drugs. Regrettably, interventions for early detection and treatment remain inaccessible for most in developing countries.¹⁵

Limiting the incidence of the disease or even detecting it early is much better and less expensive than treating advanced cases. The Global Task Force on Expanded Access to Cancer care and control in developing countries was formed to look into issues focused on reducing prices of drugs, having oncologists train local doctors and generating funds for treatment and palliation.¹⁶

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