



Cancer awareness among nursing students at a tertiary health care institute in India

Manish Kumar Goel¹, Pardeep Khanna², DR Gaur³, Ansuman Das⁴, Kailash Mittal⁵, Vivek Kaushal⁶

¹Asstt. Professor Department of Community Medicine,

²Senior Professor & Head Department of Community Medicine,

³Ex Senior Professor & Head - Department of Community Medicine,

⁴Ex Post graduate student - Department of Community Medicine,

⁵Senior resident Department of Radiotherapy

⁶Senior Professor & Head Department of Radiotherapy

BRIEF REPORT

Please cite this paper as: Cancer awareness among nursing students at a tertiary health care institute in India. Goel MK, Khanna P, Gaur DR, Das A, Mittal K, Kaushal V. AMJ 2010, 3, 6, 310-312.

Doi 10.4066/AMJ.2010. 268

Corresponding Author:

Manish Kumar Goel, Assistant Professor,
Department of Community Medicine,
PGIMS, Rohtak, India

drmanishgoel2000@yahoo.co.in

Abstract

The rising cancer incidence makes cancer prevention and treatments a priority. Nurses in India are the most important and the largest section of the paramedical workforce. Awareness among nursing students regarding cancer incidence, prevention and control was limited in this study. Only 51% and 57% knew that carcinoma lung and carcinoma cervix is the most common cancer in males and females respectively. Only 39% knew that smoking and other forms of tobacco use are the most important preventable risk factor for cancer in India. 3/4th of the students knew that cancer prevention is possible. Only 41% knew that early detection is beneficial. Since nurses have a major influence on the health seeking behaviour of patients, they need to be aware of cancer risk factors and the importance of early detection through screening.

Key Words

Cancer awareness, nursing student, prevention

The changing population demographic in India is declining fertility and increasing life expectancy. As the life expectancy at birth increases proportionately the

percentage of older people also rises. Higher incidence of non-communicable diseases, especially cancer is positively associated with percentage of aged population of a country.¹ Increase in life expectancy, containment of infection diseases and adoption of western lifestyles are making more people vulnerable to cancer.² This rising cancer incidence makes cancer prevention and treatment a priority. Nurses are the most important and the largest section of the paramedical workforce. In our setting the nurses are posted in the hospitals as well as in community. If they are trained and knowledgeable, they are equipped to spread the message of cancer prevention and promote healthy life style practices in the rural and urban populations. It had been reported that healthcare professionals including nurses are not adequately educated about cancer risk factors, risk assessment and cancer prevention.³

This study was conducted at the College of Nursing, Pt. B. D. Sharma, University of Health Sciences, Rohtak (Haryana), India. The aim was to assess the level of knowledge of nurses in our institution about cancer epidemiology, prevention and control. All the students who were present on the day of visit were enrolled in the study. The respondents were 168 female nursing students. A pre-tested, pre-coded, semi-structured questionnaire was used to assess the level of knowledge of cancer epidemiology, prevention and control. The participants were instructed not to guess the answers and in case of open ended questions instructed to offer only a single response. If the respondents gave multiple responses for these types of questions, the response written first was considered. Anonymity of the students was maintained by not seeking the name of the respondent in the survey. The data was collected, systematically tabulated and percentages were calculated.

It was observed that out of total 168 nursing students 51% knew that carcinoma lung is the most



common cancer in males and 57% knew that carcinoma cervix is the most common cancer in females. In the knowledge of others i.e. 13%, 17%, 8%, 8% and 3% carcinoma oesophagus, prostate, penis, oral cavity and of other systems were the most common cancers among males, respectively. Similarly, 23%, 13%, 5% and 2% of students thought that carcinoma breast, uterine cavity, ovary and of other systems were the most common cancers among females, respectively (Table-1). Only 39% were aware about smoking and other forms of tobacco use as the most important cause of all cancer in our country. Poor hygiene and exposure to radiations were perceived as cause of cancers by 23% and 21% of the students. Some of the other causes were also perceived important by some students (Table-2). Regarding knowledge about prevention of cancers nearly 3/4th of the students knew that prevention is possible. Approximately half of the students were aware about the possibility of early detection of cancers and only 41% knew that early detection is beneficial in determining the outcome of the patient. Sixty three percent of the students were aware of the fact that more than 2/3rd of the cancers are detected at a late stage in our country (Table-3).

Tobacco use among youth in our country is common. Tobacco use is an important predisposing factor for cancer.^{4,5} As only 39% of students knew about smoking and other forms of tobacco use as the most important cause of all cancers, so we report the need for targeted education on this topic. Knowledge regarding some of the other important causes of cancer was also disappointing e.g. genetic, dietary, industrial and occupational exposure. Nearly 3/4th of the study subjects knew that prevention of cancers is possible.

In India, about 70% of cancer patients present in advanced stages.⁶ Sixty three percent of the students were aware of the fact, but only half of the students were aware about the possibility of early detection and only 41% knew that it is beneficial. Knowledge regarding this fact needs to be improved a lot because prevention or treatment of more than two-third of cancers is possible if detected in early stages.⁵ They should be knowing about the different cancer screening programs which could greatly assist detection of cancer at early stages.

One of the main problems in India in the control of cancer is lack of knowledge about lifestyles and societal practices related to cancer causation. Increased awareness of possible warning signs of cancer, among physicians, nurses and other health care providers as well as among the general public, can have a great impact on outcomes in this disease.⁷

Nurses can play an important role in mass educations, through specially designed educational programs in the clinical setting, as well as, through community outreach strategies. In addition, they constitute an important source of information within their social networks.⁸

Conclusion

Awareness among nursing students regarding cancer incidence, prevention and control was limited in our study. As nurses have a major influence on the help seeking behaviour of patients, they need to be aware of cancer risk factors and the importance of early detection through screening.

References

1. Marimuthu P. Projection of cancer incidence in five cities and cancer mortality in India. *Indian J Cancer* 2008;45:4-7
2. Pal S K, Mittal B. Fight against cancer in countries with limited resources: the post-genomic era scenario. *Pacific J Cancer Prev* 2004; 328 – 33
3. Mahon, SM. Cancer risk assessment: conceptual considerations for clinical practice. *Oncol Nurs Forum*. 1998;25:1535–47
4. Varshney PK, Agrawal N, Bariar LM. Tobacco and alcohol consumption in relation to oral cancer. *Indian journal of otolaryngology and head and neck surgery*. 2003; 55(1):25-8
5. Gupta PC, Cecily, Roy S. Tobacco related Cancers - Its impact on Health economy. *Health Administrator* 2005;17:85-92
6. Dinshaw KA. Cancer Agenda: How Have We Measured Up? *J Med Phys*. 2001; 26(4): 334.
7. World Health Organization. 2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Non-communicable Diseases. Geneva: WHO;2008. Available from: <http://www.who.int/nmh/Actionplan-PC-NCD-2008.pdf>
8. Tessaro, I. The natural helping role of nurses in promoting healthy behaviors in communities. *Adv Pract Nurs Q* 1997;2:73–8

ACKNOWLEDGEMENTS

We are thankful to the Principal, College of nursing, for her support.

PEER REVIEW

Not commissioned. Externally peer reviewed.



CONFLICTS OF INTEREST

The authors have no competing interests.

Figures and Tables

Table-1: Knowledge regarding most common cancers among study subjects (n = 168).

Site		Percentages
Most common cancer in males	Ca lung	51
	Ca Oesophagus	13
	Ca Prostrate	17
	Ca Penis	8
	Ca Oral cavity	8
	Others*	3
Most common cancer in females	Ca Cervix	57
	Ca Breast	23
	Ca Uterine cavity	13
	Ca Ovary	5
	Others*	2

*others mean that participant did not know the answer or the response was different from those mentioned in the table

Table-2: Knowledge regarding causes of cancers among study subjects (n = 168).

Causes of cancers*	Percentages
Smoking and other forms of Tobacco	39
Poor hygiene	23
Radiations	21
Genetic	5
Dietary	8
Alcohol	13
Pollution	13
Infections	15
Industrial Chemical Waste	7
Others [‡]	6

*subjects may have multiple responses

[‡]others mean that participant did not know the answer or the response was different from those mentioned in the table

Table-3: Knowledge regarding prevention and control of cancers among study subjects (n = 168).

Knowledge about prevention and control		Percentages
Prevention	Possible	73
	Not Possible	21
	Not knowing	6
Early detection	Possible	53
	Not Possible	27
	Don't know	20
	Beneficial	41
	Not Beneficial	26
	Not Knowing	33
Detected at a Late Stage	Less than 1/3 rd	5
	1/3 rd – 2/3 rd	21
	More than 2/3 rd	63
	Don't know	11