



Original Research Article

A Cross Sectional Study amongst Paramedical and Nursing Students Regarding Cancer Awareness at a Tertiary Healthcare Institute in Northern India

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Abstract

The rising cancer incidence makes cancer prevention, early diagnosis and treatment a priority. Paramedical workers and Nurses in India are the most important and the largest section of the paramedical workforce. Awareness among paramedical students regarding cancer incidence, prevention and control was limited in this study. Only 52% and 48% knew that carcinoma lung and carcinoma cervix is the most common cancer in males and females respectively. Only 60% 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 40% 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.

Keywords: Cancer awareness, Nurses, Paramedical workers, Prevention.

Background

The changing population demographics 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

Cancer is a public health problem globally with an annual incidence of 14.1 million cases, annual mortality of 8.2 million and a prevalence of 32.6 million in 2012. In India the International Agency for Research on Cancer had estimated an incidence of 1 million cases, 6.83 lakh cancer deaths and overall prevalence of 1.8 million.³ In Uttar Pradesh, a large densely populated state of

Northern India, age standardized cancer mortality rate is 108.2/100,000 population.⁴ By 2030, the global burden of new cancer cases is expected to grow to 21.4 million with cancer deaths increasing to 13.2 million. Among these, about 70% of deaths are estimated to occur in low and middle income countries like India.^{3,4}

This rising cancer incidence makes cancer prevention and treatment a priority. Nurses and paramedical workers are the most important and the largest section of the paramedical workforce. In our setting these healthcare workers are posted in the hospitals, health centers as well as in community. They have a good connection with people and deep penetration within the rural and the most deprived sections of the population. Many a times they are the first and the only point of contact with general population. The skilled oncologists are still a scarcity in a country like India especially in rural part. If the nurses and paramedical workers 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 and other paramedical staff are not adequately educated or aware about cancer risk factors, risk assessment and cancer prevention.⁵

Design

Present study, a cross sectional study conducted among the Paramedical students and Nursing Students who came to attend classes and postings in various departments of Uttar Pradesh university of Medical Sciences, Saifai, Etawah, (U.P.) India at the time of the study. The Study was carried out in the month of November 2016, after taking written permission from the Principal and other appropriate authorities.

Aim

The aim was to assess the level of knowledge of nursing and paramedical students in our institution

about cancer epidemiology, prevention and control.

Material and Methods

All students who were present on the day of visit were enrolled in the study. The respondents were 201 students. A pre-tested, pre-coded, semi-structured questionnaire was used to assess the level of knowledge of cancer epidemiology, prevention and control. The language was English and it was translated verbally in Hindi if the student could not understand it. 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.

Analysis and Results

The data was collected, systematically tabulated and percentages were calculated using Microsoft Excel 2007. It was observed that out of total 201 nursing students 52% knew that carcinoma lung is the most common cancer in males and 48% knew that carcinoma cervix is the most common cancer in females. In the knowledge of others i.e. 10%, 8%, 8%, 20% and 2% carcinoma esophagus, prostate, penis, oral cavity and of other systems were the most common cancers among males, respectively.

Similarly, 30%, 15%, 4% and 3% of students thought that carcinoma breast, uterine cavity, ovary and of other systems were the most common cancers among females, respectively (Table-1). Only 60% 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 10% and 30% 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 40% knew that early detection is beneficial in determining the outcome of the patient. As shown in Table-3, Sixty two 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-1 Knowledge Regarding Most Common Cancers Among Study Subjects

n = 201

Site	Percentage (%)
Most Common Cancer in Males	
Ca Lung	52
Ca Esophagus	10
Ca Prostate	8
Ca Penis	8
Ca Oral Cavity	20
Others*	2
Most Common Cancer in Females	
Ca Cervix	48
Ca Breast	30
Ca Uterus	15
Ca Ovary	4
Others*	3

*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 = 201

Causes of Cancers*	Percentage (%)
Smoking and other forms of Tobacco	60
Poor hygiene	10
Radiations	30
Genetic	5
Dietary	8
Alcohol	20
Pollution	10
Infections	15
Industrial Chemical Waste	8
Others‡	5

*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 = 201

Knowledge about prevention and control	Percentage (%)
Prevention	
Possible	70
Not Possible	25
Not knowing	5
Early Detection	
Possible	55
Not Possible	25
Don't know	20
Beneficial	40
Not Beneficial	25
Not Knowing	35
Detected at a Late Stage	
Less than 1/3rd	6
1/3rd – 2/3rd	22
More than 2/3rd	62
Don't know	10

Discussion

Tobacco use among youth in our country is common. Tobacco use is an important predisposing factor for cancer.^{6,7} As only 60% 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.⁸ Sixty two 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 40% 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.⁷ 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.⁹

Low knowledge or lack of training reported in other studies also.¹⁰ Not only in India but studies from other countries also show that there is lack of training amongst health care worker either because they themselves lack the enthusiasm for new knowledge.¹¹

Nurses and paramedical workers 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.¹²

Conclusion

Awareness among nursing students regarding cancer incidence, prevention and control was limited in our study. As nurses and paramedical workers 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.

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