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Review

Effectiveness of Structured Teaching Programme on Knowledge Regarding Lung Cancer Among Male Attendants of Patients with Cancer in a Cancer Hospital, Guwahati, Assam

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Abstract

Lung cancer is a significant public health concern, causing a considerable number of deaths globally. METHODS: A quasi-experimental one group pre-test post-test research design was adopted. Purposive sampling technique was used to select 55 male attendants. A self structured questionnaire was developed as the tool. A pre-test and structured teaching programme were given to the participants. Post-test was held on the 7th day. RESULTS: Majority 31 (56.4%) belonged to the age group 20-30 years, 39 (70.9%) belonged to Hindu religion, 24 (43.6%) belonged to graduate and above, 16 (29.1%) belonged to business, 39 (70.9%) belonged to rural community, 47 (85.5%) had previously heard about lung cancer, 21 (56.7%) had information regarding lung cancer through media, 46 (83.6%) did not have habit of smoking. During post-test 34 (61.9 %) had good knowledge, 19 (34.5 %) had average knowledge and 2 (3.6 %) had poor knowledge. Result revealed that mean post-test knowledge score was 14.25±2.66 higher than pre- test mean knowledge score 7.83±2.91 with mean difference of 6.41 with calculated value (t=22.06 at df=54, p=0.001) was statistically significant. Therefore, structured teaching programme was effective in improving the knowledge regarding lung cancer among male attendants of patients with cancer. Chi square values of pretest knowledge was found to be have significant association with those who have heard about lung cancer. CONCLUSION: The structured teaching programme was effective in enhancing the level of knowledge among male attendants.

Keywords: Knowledge, Structured teaching programme, Lung Cancer, Male attendants

BACKGROUND OF THE STUDY

Lung cancer is a significant public health concern, causing a considerable number of deaths globally. Lung cancer continues to be the most common cause of cancer- related death, accounting for 1.8 million deaths

(18%) in 2020, according to the International Agency for Research on Cancer's (IARC) GLOBOCAN 2020 predictions of cancer incidence and mortality.[1]

More than 75% of patients with lung cancer are diagnosed after they are getting into the advanced or metastatic stage. It is seen that the 5-year survival rate of lung cancer in India and other neighbouring countries along with developing countries is only 9 percent. Therefore, early detection is needed to reduce morbidity of lung cancer. The common symptoms of lung cancer suffered by patients include fatigue, pain, choking condition, coughing, and anorexia.[2]

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of structured teaching programme on knowledge regarding lung cancer among male attendants of patients with cancer in a cancer hospital, Guwahati, Assam."

AIM OF THE STUDY

To assess the effectiveness of structured teaching programme regarding lung cancer among male attendants of patients with cancer in Dr. B. Borooah Cancer Institute.

OBJECTIVES OF THE STUDY

Primary Objectives

1. To assess the pre-test level of knowledge regarding lung cancer among male attendants of patients with cancer in a cancer hospital, Guwahati, Assam.
2. To assess the post-test level of knowledge regarding lung cancer among male attendants of patients with cancer in a cancer hospital, Guwahati, Assam.
3. To evaluate the effectiveness of structured teaching programme regarding lung cancer among male attendants of patients with cancer in a cancer hospital, Guwahati, Assam.

Secondary Objective

1. To find out the association between the pre-test level of knowledge with selected demographic variable.

HYPOTHESIS

Hypothesis is tested at 0.05 level of significance

H_1: There is a significant difference between the pre-test and post-test level of knowledge regarding lung cancer among male attendants of patients with cancer.

H_2: There is a significant association between pre-test knowledge score with demographic variables regarding lung cancer among male attendants of patients with cancer.

REVIEW OF LITERATURE

Devi AR, Phurailatpam JS, Chanu CA (2022) A quasi-experimental one-group pre-test-post-test research design was used to investigate the effectiveness of a planned educational program on understanding of risk factors and lung cancer prevention. The study used a quasi-experimental one-group pre-test-post-test research design and included 60 patients hospitalized to the general medical ward at R.R hospital in Bangalore. A structured knowledge questionnaire was created to test knowledge on the risk factors and prevention of lung cancer. Each sample was given 30 minutes for the pre-test and then followed a 30-45-minute teaching session. The post-test was administered by the researcher after one week with the same tool. This study's data analysis methods included descriptive and inferential statistics. According to the research findings, the intended teaching program obtained and increased knowledge regarding the risk factors and prevention of lung cancer. [3]

RESEARCH METHODOLOGY

In view of nature of the problem under study, quantitative approach was considered as appropriate. Quasi-experimental one-group pre-test post-test research design was adopted. The study was conducted at Dr. B. Borooah Cancer Institute, Guwahati, Assam. Target population included all the male attendants accompanying patients with cancer admitted in a Cancer hospital Guwahati, Assam. 55 male attendants were selected using purposive sampling technique based on sampling criteria.

Inclusion Criteria

- Male attendants who were available during data collection period.
- Male attendants who agreed to sign the consent.
- Male attendants who could understand English or Assamese.

Exclusion Criteria

- Male attendants who were not willing to participate.

- Male attendants with critically ill patients.

DESCRIPTION OF THE TOOL: The tool consists of two parts:

Section A: Socio-demographic Proforma such as age, religion, educational qualification, occupation, place of residence, family history of lung cancer, previous knowledge regarding lung cancer and personal habits.

Section B: Self structured knowledge questionnaire to assess the knowledge with respect to pre and post structured teaching programme on lung cancer. It consisted of 20 questions.

STRUCTURED TEACHING PROGRAMME

The researcher developed structured lesson plan on lung cancer which was taught after pre-test and followed by assessing the post-test level of knowledge. The structured teaching programme on lung cancer was beneficial for the study participant to create awareness regarding lung cancer.

RESULT

The analysis and interpretation of data was done by using descriptive and inferential statistics based on the following objectives.

Section A: Description of the socio demographic characteristics in frequency and percentage.

- Majority 31 (56.4%) belonged to the age group 20-30 years.
- Majority 39 (70.9%) belonged to Hindu religion.
- Majority 24 (43.6%) belonged to graduate and above.
- Majority 16 (29.1%) belonged to business.
- Majority 39 (70.9%) belonged to rural community.
- Majority 47 (85.5%) had previously heard about lung cancer.
- Majority 21 (56.7%) had information regarding lung cancer through media.
- Majority 46 (83.6%) did not have habit of smoking.

Section B: Description of frequency and percentage distribution to assess the pretest and post test knowledge of male attendants regarding lung cancer.

Revealed that in pre-test majority 34 (61.8%) had average knowledge, 21 (38.2%) had poor knowledge and none of the attendants had good knowledge and in post-test 34 (61.9 %) had good knowledge, 19 (34.5 %) had average knowledge and 2 (3.6 %) had poor knowledge.

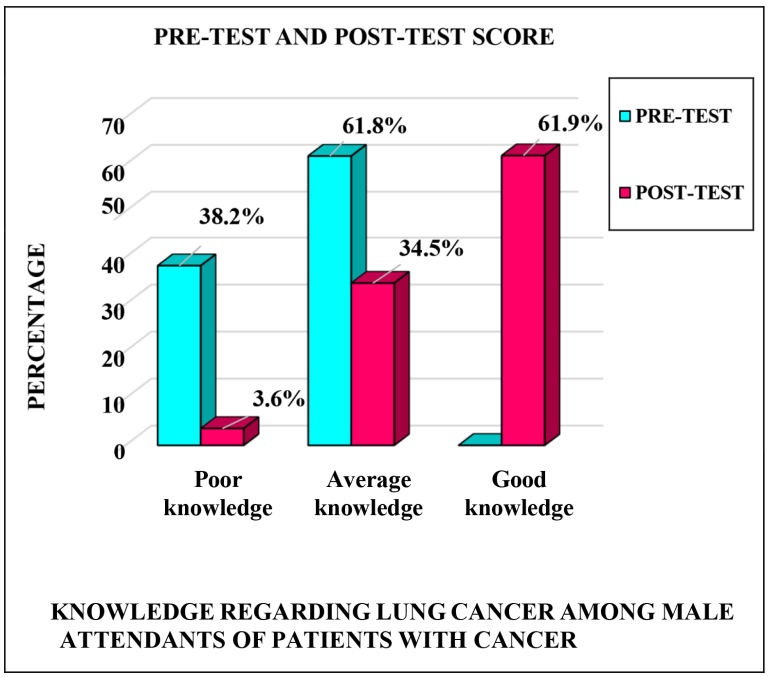

Figure 1

CLUSTERED COLUMN DIAGRAM DEPICTS THE PERCENTAGE DISTRIBUTION OF PRETEST KNOWLEDGE.

Section C: Effectiveness of structured teaching programme by comparing the difference between pre test and post test mean knowledge scores among male attendants of patients

Result revealed that mean post-test knowledge score was 14.25±2.66 higher than pre- test mean knowledge score 7.83±2.91 with mean difference of 6.41 with calculated value (t=22.06 at df=54, p=0.001) was statistically significant.

Findings showed that structured teaching programme was effective in improving the knowledge regarding lung cancer among male attendants of patients with cancer.

Therefore, Hypothesis (H_1) is accepted.

Table 1 Effectiveness of Structured Teaching Programme on Knowledge Regarding Lung Cancer Among Male Attendants

Effectiveness	Pre-test		Post-test		Mean D	t value	df	p value	Tabulated t value
	Mean	SD	Mean	SD					
Knowledge	7.83	2.91	14.25	2.66	6.41	22.06	54	**0.001***	2.0049

Section D: Association between pretest level of knowledge score with their demographic variables.

Result showed that those who have heard about lung cancer were found to have significant association at $p<0.05$ with pre-test level of knowledge regarding lung cancer among male attendants of patients with cancer.

Therefore, H_2 is accepted for those who have heard about lung cancer.

H_2 is rejected for other demographic variables such as age, religion, educational qualification, occupation, place of residence, family history of lung cancer and personal habits.

DISCUSSION

The goal of the current study was to evaluate how well a structured teaching programme on lung cancer knowledge affected male attendants for cancer patients in a Guwahati, Assam, cancer hospital. Quasi-experimental one-group pre-test post-test research methodology was used for this investigation. In all, 55 male attendants took part in the research. Data was gathered via the Self-structured Questionnaire for Knowledge. The acquired data were loaded onto the master sheet in order to perform statistical processing and tabulation. The aims and hypotheses had been discussed in relation to the study's findings.

It was observed that, majority 31 (56.4%) belonged to the age group 20-30 years, majority 39 (70.9%) belonged to Hindu religion, majority 24 (43.6%) belonged to graduate and above, majority 16 (29.1%) belonged to business, majority 39 (70.9%) belonged to rural community, majority 47 (85.5%) had previously heard about lung cancer, majority 21 (56.7%) had information regarding lung cancer through media, majority 46 (83.6%) did not have habit of smoking.

The study findings were supported by a similar study conducted by Anusha J, Indira S, Jayanthi V (2016), A Study to Evaluate the Effectiveness of a Structured Teaching Programme in Preventing Lung Cancer among Male Attendants at Selected Colleges in Guntur District, Andhra Pradesh. The study's findings revealed that 49 (61.25%) of male adolescents were Hindus, 38 (47.5%) were 17 years old, and 57 (71.25%) were nonsmokers. The majority of male teenagers' relatives (31, 38.75%) smoked. Only nine (11.25%) relatives of male attendants had lung cancer. More than half (53.75%) of the teenagers come from upper-middle-class homes. [4]

It has been observed from the present study that in pre-test majority 34 (61.8%) had average knowledge, 21 (38.2%) had poor knowledge and none of the attendants had good knowledge and in post-test 34 (61.9 %) had good knowledge, 19 (34.5 %) had average knowledge and 2 (3.6 %) had poor knowledge.

The study findings were supported by a similar study conducted by Devi AR, Phurailatpam JS, Chanu CA (2022), a quasi-experimental one-group pre-test-post-test research design was used to investigate the effectiveness of a planned educational program on understanding of risk factors and lung cancer prevention. The study's findings revealed that prior to the implementation of the proposed education program, the majority of patients, 37 (57%), had average knowledge, while 23 (43%) had inadequate understanding. However, after implementing the proposed instruction program, the majority of 57 patients (95%) had good knowledge. Three patients (5% of them) had moderate knowledge. [3]

It has observed from the present study that mean post-test knowledge score was 14.25±2.66 higher than pre-test mean knowledge score 7.83±2.91 with mean difference of 6.41 with calculated value (t=22.06

at df=54, p=0.001) was statistically significant.

The results of the study were corroborated by Patidar K. and Chaudhari A.'s 2019 study. A research to evaluate how well industrial workers in Mehsana District understood the topic of lung cancer prevention as part of a planned education program. The mean score after the exam (15.97 ±1.44) was greater than the mean before the test (10.11 ±1.55), according to the study. At the 0.05 level of significance, the computed "T" value of 27.71 was more than the tabular value of 1.98. [5]

It has been observed from the present study that those who have heard about lung cancer were found to be significant association at $p<0.05$ with pre- test level of knowledge regarding lung cancer among male attendants of patients with cancer but other demographic variables such as age, religion, educational qualification, occupation, place of residence, family history of lung cancer and personal habits were found to be non-significant with pre- test level of knowledge regarding lung cancer among male attendants of patients with cancer.

A related study by Kumar J, Narayana NJ (2023) corroborated the study findings. A study was carried out in a particular rural community area in Jhalawar District (Rajasthan) to evaluate the efficacy of a structured training program on adult smokers' comprehension of risk factors and prevention of lung cancer. At the baseline stage, the study discovered a statistically significant relationship [X23=8.72 $p<0.05$] between smokers' age and their awareness of risk factors for lung cancer prevention. [6]

CONCLUSION

The study enables the primary investigator concluded that among 55 male attendants, in pre-test majority 34 (61.8%) had average knowledge, 21 (38.2%) had poor knowledge and none of the attendants had good knowledge and in post-test 34 (61.9 %) had good knowledge, 19 (34.5 %) had average knowledge and 2 (3.6 %) had poor knowledge. It has been observed that those who have heard about lung cancer were found to have significant association at $p<0.05$ with pre- test level of knowledge regarding lung cancer among male attendants of patients with cancer. Results revealed that mean post-test knowledge score was 14.25±2.66 higher than pre-test mean knowledge score 7.83±2.91 with mean difference of 6.41 with calculated value (t=22.06 at df=54, p=0.001) was statistically significant. Therefore, this study concluded that structure teaching programme was effective in improving the knowledge regarding lung cancer among male attendants of patients with cancer

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