



EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF LUNG CANCER AMONG INDUSTRIAL WORKERS

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Pre experimental study to evaluate the effectiveness of planned teaching programme on knowledge regarding prevention of lung cancer among workers of M.M Industries, Nalagarh, Solan (H.P).

ABSTRACT

Lung cancer results from the uncontrolled growth of lung tissue cells, which may also cause metastasis. Lung cancer is the leading cause of cancer related death in world wide. Lung cancer is reportedly the most common cancer among men and women, representing huge social and economic burdens in both developed and developing countries. AIM: The aim of study is to evaluate the effectiveness of planned teaching programme regarding prevention of lung cancer among M.M Industrial workers. Methods and Materials: Quantitative research approach was used in this study. Pre –experimental research design with one group pre-test post-test design was adopted for this study. Convenience sampling technique was used to select a 40 sample who fulfil the inclusive criteria. The structured knowledge questionnaire was used to assess the knowledge regarding prevention of lung cancer among industrial workers. The study findings revealed that paired “t” values for knowledge was (32.37) which was significant at $p < 0.05$. The findings revealed that after structured teaching programme the majority of industrial workers gained knowledge regarding prevention of lung cancer.

Keywords: Effectiveness, Planned Teaching Programme, Knowledge, Prevention, Lung cancer, Industrial workers.

INTRODUCTION: Every human being is born with responsibility to protect one’s own health. This responsibility cannot be carried quit one is ignorant curtailing the ignorance of the fellow human beings in the field of the health is the moral obligation of each health professional. Lung cancer is a malignancy with relatively high morbidity. Lung cancer is the leading cause of years’ life lost because of cancer and is associated with the highest economic burden relative to other tumour types. The World Health Organization(WHO) reported that lung cancer related death was as high as 1.1 million per year, according for 17.8% of all cancer related death. Still now, the morbidity of lung cancer is increasing year by year. One of the main treatment for lung cancer is chemotherapy, which needs a long process and is always accompanied with obvious side effects.

Cancer is to a large extent avoidable many cancers can be prevented Others can be detected early in their development, treated and cured. Even with late stage cancer, the pain can be reduced, the progression of the cancer slowed and patients and their families helped to cope.

Lung cancer is disease characterized by uncontrolled cell growth in tissues of the lung. If left untreated, this growth can spread beyond the lung in a process called metastasis in to nearby tissues and eventually, into other parts of the body. The most common causes of lung cancer is long term exposure to silica, asbestosis, copper, tobacco, smoke, non-smokers accounting for 15% of lung cancer causes and these are often attributed to a combination a genetic factors radon gas, asbestos, air pollution and positive smoke.

In 2013, The World Health Organization specialized cancer department, the International Agency for Research on Cancer (IARC), categorized outdoor air pollution as carcinogenic to humans, claiming a higher risk of lung cancer from increasing exposure to particle matter and air pollution.

NEED OF THE STUDY:

India is one of the largest and the most important developing country of the world. Majority of the population is working in industrial sector. Worldwide in 2012, Lung cancer occurred in 1.8million people and resulted in 1.6 million deaths. This makes it the most common cause of cancer related death in men and second most common in women after breast cancer. (World cancer Report 2014) Lung cancers are forth most common cancer reported in the Indian males. It accounts for 6.8%of all malignancies in India .The incidence is estimated to be about 6.6 per 100,000 in females .In India, Lung cancer constitutes 6.9 percent of all new cancer cases and 9.3 percent of all cancer related deaths in both sexes, it is the commonest cancer and cause of cancer related mortality in men ,with the highest reported incidences from Mizoram in both male and females (Age adjusted rate 28.3 and 28.7 per 100,000 population in males and females respectively) (Indian Council of Medical Research 2013).

In India, lung cancer account for an annual incidence of 72,510 cases (5.8%) and 66,279 deaths (7.8%)

In 2021, India had an estimated 109,000 lung cancer cases in males and 45,000 cases in females, resulting in a crude incidence rate of 6.9 per 100,000 populations. However, incidence rates vary significantly across states, with Mizoram (28.3 per 100,000), Kerala (27.2 per 100,000) and Manipur (26.6 per 100,000) showing the highest rates.

In India, the number of lung cancer cases is increasing. According to specialists from Indian Council of Medical Research (ICMR). Lung cancer cases in India are predicted to increase more than seven times by 2025 compared to the situation a decade ago.

OBJECTIVES OF THE STUDY:

- To assess the pre-test and post-test knowledge regarding prevention of the lung cancer among M.M Industrial workers.
- To evaluate the effectiveness of planned teaching programme on knowledge regarding prevention of the lung cancer among M.M Industrial workers.
- To find out the association between post-test knowledge score with selective demographic variables of M.M Industrial workers.

HYPOTHESES:

H1: There is a significant difference between pre-test and post-test knowledge regarding prevention of the lung cancer among M.M Industrial workers.

H2: There is a significant association between post-test knowledge with demographic variables regarding prevention of lung cancer among M.M Industrial workers.

ASSUMPTIONS:

- M.M Industrial workers may have inadequate knowledge regarding Lung cancer.
- Planned teaching programme may have a positive effect on prevention of lung cancer among M.M. Industrial workers.

DELIMITATIONS:

- The study was delimited to the M.M Industrial workers.
- The data collection was delimited to a period of 4 weeks.
- The study sample is limited to 40 M.M Industrial workers.

METHODOLOGY:

Research Approach: research approach was used for this study is quantitative research approach as it aimed to assess the knowledge regarding prevention of lung cancer among M.M Industrial workers.

Research Design: The research design used for this study was pre experimental –one group pre-test post-test design.

Group	Pre test	Intervention	Post test
M.M Industrial workers	O1	X	O2

O1- Pre test

X – Intervention (Planned teaching programme)

O2- Post test

Variables under study:

Dependent variable: Planned teaching programme on prevention of lung cancer.

Independent variable: Assessment of knowledge.

Research setting: The study was conducted in M.M Industries, Tehsil –Nalagarh. Distt- Solan.

Population: The target population of present study was 40 M.M Industrial workers, Nalagarh.

Sample Size: The sample size s for the study was 40 M.M Industrial workers.

Sampling technique: The sampling technique was used for this study was convenience sampling technique.

Sampling criteria:**Inclusive criteria:**

- Workers who are willing to participate.
- Workers who knows Hindi and English.
- Both male and female.

Exclusive criteria:

- Workers who are sick.

Development of the tool: The tool consists of two parts:

Part- I: It deals with demographic variables such as age, gender, religion, type of family, Marital status, area of living, occupation, education, type of diet.

Part –II: Structured Knowledge questionnaire. It consists of 20 questions related to assess the knowledge regarding prevention of lung cancer. Each correct answer score is one (1) and Each incorrect answer score is zero (0).

Scoring of knowledge questionnaire was by:

0 – 6: Inadequate Knowledge

7 – 13: Moderately adequate Knowledge

14 – 20: Adequate Knowledge.

VALIDITY OF TOOL:

The validity is concern with sampling adequacy of item, for the constructed, that is being measured validation of the tool was established in consultation with strong nursing experts and supervisor of the group. The tool was modified according to suggestion and recommendation by experts.

DATA ANALYSIS:

The data were Analysed by using both descriptive and inferential statistics. The data related to demographic variables are analysed by using descriptive statistics (frequency, percentage) The level knowledge was assessed by using descriptive measures (mean, standard deviation) The effectiveness of planned teaching programme was analysed by using paired “t” test.

RESULTS:

Table -1: Frequency and percentage distribution according to pre - test level of knowledge regarding prevention of lung cancer among M.M Industrial workers.

N= 40

S.No	Level of Knowledge	Frequency	Percentage
1.	Inadequate knowledge	36	90%
2.	Moderately adequate knowledge	4	10%
3.	Adequate Knowledge	0	0%

Table -1 shows that as pre-test level of knowledge score 36(90%) M.M Industrial workers having inadequate knowledge regarding prevention of lung cancer 4 (10%) M.M Industrial workers having moderately adequate knowledge regarding prevention of lung cancer.

Table -2 Frequency and percentage distribution according to post –test level of knowledge regarding prevention of lung cancer among M.M Industrial workers.

N = 40

S.No	Level of Knowledge	Frequency	Percentage
1	Inadequate Knowledge	0	0%
2	Moderately adequate knowledge	14	35%
3	Adequate knowledge	26	65%

Table -2 Shows that post-test level of knowledge score of M.M Industrial workers having 14 (35%) moderately adequate knowledge and 26 (65%) Industrial workers having adequate knowledge regarding prevention of lung cancer.

Evaluate the effectiveness of structured teaching programme in term of paired “t” test value knowledge regarding prevention of lung cancer.

Table 3: Comparison of mean, standard deviation and paired “t” test value of knowledge regarding prevention of lung cancer in pre-test and post-test.

N= 40

Level of knowledge	Pre test		Post test		Calculated value	Table value
	Mean	SD	Mean	SD		
	3.9	4.76	14.5	82.7		

Table: 3 shows that calculated value for level of knowledge regarding prevention of lung cancer (32.37) is higher than table value (7.82). Hence planned teaching programme was effective in this study.

The chi – square values were calculated to find the association between the post-test knowledge score among M.M Industrial workers regarding prevention of lung cancer with their sociodemographic variables. The results reveals that there was significant association with religion ($\chi^2 = 11.52$) and dietary pattern ($\chi^2 = 8.474$) at the level of $p < 0.05$ and other demographic variables had not significant association.

CONCLUSION:

The findings of the study showed that the knowledge score of workers of M.M Industrial workers was very less before the planned teaching programme. The planned teaching programme facilitated them to gain knowledge about prevention of lung cancer which was evident from the post-test knowledge score. Therefore, the study concludes that the administration of planned teaching programme was an effective method to improving the knowledge regarding prevention of lung cancer among M.M Industrial workers.

RECOMMENDATIONS:

On the basis of the findings of the study the following recommendations are made:

- The study can be replied in various setting.
- The similar study can be conduct on larger population.
- Similar study can be conduct with control group and experimental group.
- The study can be conduct towards lifestyle modification.

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