A Study to Assess the Effectiveness of Structured Teaching Programme Regarding Knowledge on Prevention of Lung Cancer among Male Adolescents in Selected Colleges of Guntur District, Andhra Pradesh

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Abstract: Lung cancer is a major health problem worldwide. The incidence is increasing globally at a rate of 0.5% per year. It is the leading cause of cancer mortality in most of the countries in the world. It is well known that lung cancer rates are high in developed countries; nevertheless, the developing countries do not la behind and the rates are getting closer to the rates that are seen in developed countries. **Aim:** The aim of the study was to assess the effectiveness of structured teaching programme regarding knowledge on prevention of lung cancer among male adolescents in selected colleges of Guntur district, Andhra Pradesh" **Objectives:** 1. To assess the knowledge regarding prevention of lung cancer among male adolescents by administering pre-test. 2. To prepare and administer the structured teaching programme regarding prevention of lung cancer to male adolescents. 3. To analyze the effectiveness of structured teaching programme regarding prevention of lung cancer among male adolescents by administering post-test. **Methodology:** A pre experimental research Design was adopted. 80 Male Adolescent Students were selected by simple random sampling technique. **Results:** In Pre-Test mean score was 9.67 with standard deviation of 2.48 and In Post-Test mean score was 18.67 with standard deviation of 2.92 . The obtained calculated 't' value was 8.633, which is greater than the table value of 1.65. It shows that there was a significant difference between pretest and posttest knowledge regarding prevention of lung cancer among male adolescents. Hence structured teaching programme was very effective. **Conclusion:** This study concluded that in the pre-test knowledge was less and after structured teaching programme, in post-test overall knowledge was improved regarding prevention of lung cancer as it was shown by their attained scores. **Keywords: Prevention of Lung cancer, Male adolescents, Knowledge, Structure Teaching program.**

Introduction:

Today world is in the grip of numerous, ferocious diseases. One of the most prevalent endemic diseases in the world is cancer which is the leading cause of morbidity and mortality worldwide, with approximately 14 million new cases and 8.2 million cancer related deaths in 2012. About 1.59 million deaths are due to lung cancer. Lung cancer is a disease characterized by uncontrolled cell growth in tissues of the lung. If left untreated, this growth can spread beyond the lung into nearby tissue and eventually, into other parts of the body. Most cancers that start in lung are known as primary lung cancers, these are carcinomas that derived from epithelial cells.

The incidence is increasing globally at a rate of 0.5% per year. It is the leading cause of cancer mortality in most of the countries in the world. It is well known that lung cancer rates are high in developed countries; nevertheless, the developing countries do not lag behind and the rates are getting closer to the rates that are seen in developed countries. There is a great variation in the prevalence of lung

cancer in different geographical areas. Nearly 70% of all the new cases of lung cancer in the world occur in the developed countries. It is the most common cancer in terms of both incidence and mortality (1.61 million new cases per year and 1.38 million deaths), with the highest rates in Europe and North America.

Need for the study: Lung cancer is the most frequent malignant disease and most common cause of cancer death in the world with 1.18 million deaths. Almost half (49.9%) of the cases occur in the developing countries, a big change since 1980, when it was estimated that 69% were in developed countries. Worldwide, it is the most common cancer in men, with the highest rates observed in North America and Europe (especially Eastern Europe). In women, incidence rates are lower with a global rate of 12.1 per 100,000 compared to 35.5 per 100,000 in men. Mortality from lung cancer remains very high in the world. The average survival at five years in the United States is 15%, in Europe is 10% and in developing countries is 8.9%.

Lung cancer has been well co-related with smoking but high frequency of lung cancers cases (25%) are non- smokers. Development of malignancy of lung is a multifactorial interacting process. Many suspect factors including life style, social and also filial factors are contributory causes for development of lung cancer in non- smokers. Humans are exposed to organic and inorganic pollutant through environmental and occupational sources. Epidemiological evidences shows link between exposure to occupational and non-occupational pollutants and risk of cancer. The main occupational exposures occur in workers who are engaged in smelting and refining of metals, production of pesticides, pigments, dyes, glass, semiconductors, wood/cotton products and various pharmaceutical substances. Non-occupational exposures mostly occur due to outdoor air pollution including residence near major industrial emission sources, asbestos, in-door air pollution, arsenic in drinking water, chlorinated byproducts in drinking water, dioxins and electromagnetic fields.

Statement of the problem:

"A study to assess the effectiveness of structured teaching programme regarding knowledge on prevention of lung cancer among male adolescents in selected colleges of Guntur district, Andhra Pradesh".

Objectives of the study:

1. To assess the knowledge regarding prevention of lung cancer among male adolescents by administering pre-test.
2. To prepare and administer the structured teaching programme regarding prevention of lung cancer among male adolescents.
3. To analyze the effectiveness of structured teaching programme regarding prevention of lung cancer among male adolescents by administering post-test.

Operational definitions:

1. Structured Teaching Programme: The structured teaching programme refers to systematically developed instructions for male adolescents to provide information regarding prevention of lung cancer.

2. Prevention: In the current study prevention refers to those interventions adopted in before the initial onset of lung cancer by the male adolescents.

3. Adolescents: In this present study adolescent refers to males who are under age group of 16-19 years studying in selected junior colleges in Guntur district.

Assumptions: Male adolescents may have inadequate knowledge, regarding prevention of lung cancer.

Structured teaching programme may enhance the knowledge regarding prevention of lung cancer.

Hypothesis of study:

H1: There will be significant difference in the knowledge regarding the Prevention of lung cancer among male adolescents after administering the structured teaching programme.

Limitations: The participants are limited to only male adolescents under age group of 16-19 years studying in C.K. junior college and V. J. junior college of Mangalgiri.

Materials and methods:

Sampling and data collection: The research design adopted for the present was preexperimental research

designs i.e. one group pre-test and post-test design. The simple random sampling technique was used to select the study sample. 80 samples were selected, 40 from each college. The study includes the population in the age group of 16 – 19 years, who were Available at the time of data collection, willing to participate in the study. The study excludes the population who were not available at the time of data collection, not willing to participate in the study, mentally and physically challenged.

Description of tool:

Section – A: It consists 09 items of baseline variables such as sample code number, age, religion, smoking status of the respondent, smoking habits of their family members, information about family members suffering with the lung cancer, Socio economic status of the family based on kuppuswami scale and sources of Information they had regarding prevention of lung cancer.

Section – B: It consists of 25 multiple choice questions on knowledge regarding prevention of lung cancer. Each question carries 4 options. Each correct answer is assigned a score of 1, the maximum score is 25.The subjects who got score of 75% - 100% were considered as having good knowledge, and scores of 51% - 74% were considered as average knowledge and scores of 0% - 50% were considered as having poor knowledge.

Data collection procedure: A formal written permission was obtained from the principals of C. K. junior college and V. J. junior college mangalagiri, Guntur district, A. P. The data was collected from1st February to 13thFebruary 2016, for a period of 2 weeks. At C. K. junior college on 1st February 2016 a group of 40 male adolescent students were selected by using simple random technique (lottery method) based on inclusion and exclusion criteria. Followed by brief introduction, verbal consent was taken and conducted the pre-test and on the same day structured teaching programme was given for 60 minutes. After five days of teaching that is on 6th February 2016 post-test to the same group was conducted by using same questionnaire.

Another sample size of 40 male adolescent students were selected on 8th February 2016 at V. J. junior college by using simple random sampling technique and a pre-test was taken followed by structured teaching programme . On 13th February 2016 that is after five days of teaching posttest was taken.

Data analysis: The data obtained were analyzed in terms of objectives of the study using descriptive statistics i.e. frequency distributions, percentage, mean, standard deviation for baseline variables and inferential statistics i.e. paired t- test, chi-square test are used for computing the knowledge.

Results: The present study shows that majority 49(61.25%) of male adolescents were Hindus, Most of the male adolescents were in age group of 17 years 38 (47.5%), Most 57(71.25%) of male adolescents were nonsmokers. Majority 31(38.75%) of the relatives of male adolescents were having the habit of smoking. Only 9(11.25%) of the relatives of male adolescents were suffering with lung cancer as reported by them. More than half 43(53.75%) of the adolescents belong to upper lower class families.

Table 1: Range, mean and standard deviation of pretest knowledge scores of male adolescents regarding prevention of lung cancer.

Maximum score	Range of score	Mean score	Mean score percentage	S.D
25	4-15	9.67	38.7	2.48

The above table indicates that the maximum score was 25, but the subjects knowledge scores were ranged from 4 – 15 with mean score of 9.67± 2.48.

Table 2: Distribution of the samples according to the level of knowledge in pretest regarding prevention of lung cancer.

Level of knowledge	Scores	Fre	Per
Good (75-100%)	19-25	00	00
Average (51-74%)	13-18	14	17.5
Poor (0-50%)	0-12	66	82.5

The above table revealed that majority 66 (82.5%) of male adolescents were having poor knowledge about prevention of lung cancer, only 14 (17.5%) of male adolescents average knowledge and none of them

having good knowledge in pre – test.

Table-3: Range, mean and standard deviation of post test knowledge scores of male adolescents regarding prevention of lung cancer.

Maximum score	Range of score	Mean score	Mean score percentage	S.D
25	13-24	18.67	74.7	2.92

The above table indicates that the maximum score was 25, the subjects knowledge scores ranged from 13 – 24 with mean score of 18.67± 2.92. This shows that relatively good level of knowledge regarding prevention of lung cancer in post-test.

Table 4: Distribution of the samples according to the level of knowledge in post test regarding prevention of lung cancer.

Level of knowledge	Scores	Fre	Per
Good (75-100%)	19-25	43	53.75
Average (51-74%)	13-18	37	46.25
Poor (0-50%)	0-12	00	00

The data presented in above table shows that more than half 43(53.75%) of male adolescents having good knowledge, 37(46.25%) of male adolescents having average knowledge and no single respondent had poor knowledge in post - test.

Table 5: Comparison of pre-test and post-test knowledge scores of male adolescents regarding prevention of lung cancer.

Knowledge variable	Mean	Mean difference	S.D	paired t-test value
Pre- test Post-test	9.67 18.67	9	2.48 2.92	t = 8.633 df = 79 p<0.05***

Highly Significant at p<0.05***

The above table describes that the obtained mean value of knowledge (18.67±2.92) regarding prevention of lung cancer among male adolescents in post-test was higher than the knowledge in pretest (9.67±2.48). The attained calculated 't' value was 8.633, which is greater than the table value of 1.65. It shows that there was significant difference between pretest and posttest knowledge regarding prevention of lung cancer among male adolescents. Hence structured teaching programme was very effective; therefore the research hypothesis H1 was accepted.

Conclusion: The results of the study had found that in the pre-test the knowledge was less and after structured teaching programme , in post-test overall knowledge was improved regarding prevention of lung cancer as it was shown by their attained scores.

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