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Effectiveness of Self-Instructional Module on Knowledge Regarding Life Style Modifications and Prevention of Lung Cancer among Supportive Staffs at Selected Hospitals.

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Abstract:

Lung cancer is a leading cause of cancer-related death commonly in men. There are many causes for lung cancer like inhalation of carcinogenic pollutants by susceptible hosts. Out of all the risk factors, cigarette smoking is the most important risk factor in the development of lung cancer in men. Lung cancer is the uncontrolled growth of abnormal cells in one or both of the lungs. While normal cells reproduce and develop into healthy lung tissue, these abnormal cells reproduce faster and never grow into normal lung tissue. The cancer cells can spread from the tumor into the bloodstream or lymphatic system where they can spread to the organs. Cigarette smoking is by far the most important cause of lung cancer and the risk from smoking increases with the number of cigarettes smoked. The length of time spent smoking. Some occupational chemicals and air pollution like benzene, formaldehyde, and disease air pollution asbestos also an important cause of lung cancer. The research methodology adopted for the study employed a quantitative research approach. The investigator utilized a Pre experimental one-group pretest post-test research design, which was based on Imogene King's Goal Attainment theory. Effectiveness of self-instructional module on knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staffs at selected hospitals. A single group comprising 60 samples was selected using a non-probability convenient sampling technique. The samples were chosen based on specific inclusion criteria from the selected hospitals. The research tool comprised demographic data and a structured questionnaire designed to assess the knowledge of lifestyle modifications and prevention of lung cancer among supportive staffs at selected hospitals. Data collection took place between 20/02/2024 and 28 /02/2024. Prior to data collection, informed consent was obtained from all participants. Subsequently, a pretest was administered to the selected participants. A self-instructional module on lifestyle modifications and prevention of lung cancer was then conducted to enhance their knowledge. After a period of 7 days, a post-test was conducted to assess the post-intervention knowledge levels. The obtained findings were documented in accordance with the provided tool. The collected data were subjected to analysis using both descriptive and inferential statistics.

Key Words: effectiveness, knowledge, self-instructional module, supportive staffs, prevention, life style modification.

Introduction

Out of all the risk factors, cigarette smoking is the most important risk factor in the development of lung cancer in men. Lung cancer is the uncontrolled growth of abnormal cells in one or both of the lungs. While normal cells reproduce and develop into healthy lung tissue, these abnormal cells reproduce faster and never grow into normal lung tissue. The cancer cells can spread from the tumor into the bloodstream or lymphatic system where they can

spread to the organs. Cigarette smoking is by far the most important cause of lung cancer and the risk from smoking increases with the number of cigarettes smoked. Lung carcinoma is the leading cause of cancer-related death worldwide. Non-significant increases in risks were found for harvesting the crop (OR 1.41, 95% CI 0.70 to 2.90) and processing the cane in the mills (OR 1.70, 95% CI 0.20 to 12.60). Various factors have been associated with the development of lung cancer including tobacco smoke, secondhand smoke, environmental and occupational exposures, gender, genetics, and dietary factors also lead to lung cancer. Lung cancer is the leading cancer killer among men and women in the United States.

Need of study

Lung cancer, also known as lung carcinoma, is a malignant tumor that begins in the lung. Lung cancers are caused by genetic damage to the DNA of cells in the airways, often exacerbated by cigarette smoking, or inhaling damaging chemicals. Damaged airway cells sometimes gain the ability to proliferate unchecked, causing the growth of a tumor. Without treatment, lung tumors can spread throughout the lung, damaging lung function. Eventually, lung tumors metastasize, spreading to distant parts of the body, and causing varying diseases. Lung cancers are classified based on the cells they originate from. Around 15% are small-cell lung cancers, while the remaining 85% (the non-small-cell lung cancers) are adenocarcinomas, squamous-cell carcinomas, and large-cell carcinomas. Symptoms of general respiratory problems: coughing, shortness of breath, and/or chest pain. Many complications will occur due to cigarette smoking, sometimes who have continued contact with a smoking environment are called passive smokers. They will be suffering with lung cancer. Nowadays style decides to impact their life to increase chances of lung cancer. That's why research has been conducted to study lung cancer. Lung cancer was the most common malignancy that claimed the lives of both men and women in urban and rural locations. With a mortality rate of 40.68 per 1,00,000 people in urban areas, there were 281,001 reported lung cancer deaths (54.47 per 1,00,000 men with 1,92,074 estimated lung cancer deaths and 26.29 per 100,000 women with 88,927 estimated lung cancer deaths). There were 2,48,152 lung cancer deaths in rural areas, with a mortality rate of 37.80 per 1,00,000 people (50.98 per 1,00,000 men with 1,72,358 estimated lung cancer deaths and 23.80 per 1,00,000 women with 75,794 estimated lung cancer deaths).

Methodology:

The research methodology adopted for the study employed a quantitative research approach. The investigator utilized a Pre experimental one-group pretest post-test research design, which was based on Imogene King's Goal Attainment theory. Effectiveness of self-instructional module on knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staffs at selected hospitals. A single group comprising 60 samples was selected using a non-probability convenient sampling technique. The samples were chosen based on specific inclusion criteria from the selected hospitals. The research tool comprised demographic data and a structured questionnaire designed to assess the knowledge of lifestyle modifications and prevention of lung cancer among supportive staffs at selected hospitals. Data collection took place between 20/02/2024 and 28 /02/2024. Prior to data collection, informed consent was obtained from all participants. Subsequently, a pretest was administered to the selected participants. A self-instructional module on lifestyle modifications and prevention of lung cancer was then conducted to enhance their knowledge. After a period of 7 days, a post-test was conducted to assess the post-intervention knowledge levels. The obtained findings were documented in accordance with the provided tool. The collected data were subjected to analysis using both descriptive and inferential statistics. Effectiveness of self-instructional module on knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staffs at selected hospitals. Assessed using paired 't' test. Additionally, chi-square test was employed to determine any potential associations between the study findings and demographic variables.

❖ **Section – I:** Demographic data of sample

➤ In this study, 25% of the Supportive staffs were in the age group of 20-30 years, 28% of them were in the age group of 31-40 years, 21.66% of them were in the age group of 41-50 years and 25% of them were in the age group of 51-60 years.

➤ 58.33% of them were Male and 41.66 % of them were Female.

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- ➤ 58.33% belongs to urban and 41.66 % belongs to rural area of residency.
- ➤ 33.33% of supportive staffs working in the medicine ward,16.66% of them were working in ICU, 41.66% of them were working in the Housekeeping department and 8.33% of them were working in the Pathology department.
- ➤ 33.33% of them had primary education, 41.66% of them had secondary education, 66.66% of - 13 - them had Higher secondary and 33.33% of them were Undergraduate
- ➤ 25% of them had a monthly family income below Rs. 10000/. 41.66% of them had a monthly family income of Rs.10001 -20000, 16.66% of them had a monthly family income Rs.20001-30000 and16.66% of them had a monthly family income Rs. 30001 above.
- ➤ 66.66 % of them had mixed diets and 33.33% of them were vegetarians.
- ➤ 36.66% of them had Less than 1 Year of work experience, 30 % of them had 1-3 years of work experience 16.66% of them had 3 - 5 years of experience and 16.66% of them had More than 5 Years of experience.
- ➤ 23.33% of them had newspaper sources of information, 43.33% of them had social media and 33.33% of them had peer groups.

Section II: Knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staffs. In the pretest, 0% of the supportive staffs had poor knowledge (Score 0-8) and 91.66% had average knowledge (score 9-16) and 8.33% had good knowledge score (17-20) regarding lifestyle modifications and prevention of lung cancer. In the post-test, 100% of them had good knowledge (score 17-20) regarding lifestyle modifications and prevention of lung cancer. This indicates that there is a remarkable improvement in the knowledge of supportive staffs in selected hospitals.

Knowledge	Pretest	
	Freq	%
Poor (score 0-8)	0	0
Average (score 9-16)	55	91.66%
Good (score 17-20)	5	8.33%

Table No: 1 To Assess The Pre-Existing Knowledge.

0% of the supportive staff had poor knowledge (Score 0-8) and 91.66% of them had average knowledge (score 9-16), 8.33% had good knowledge regarding Lifestyle modifications and prevention of lung cancer.
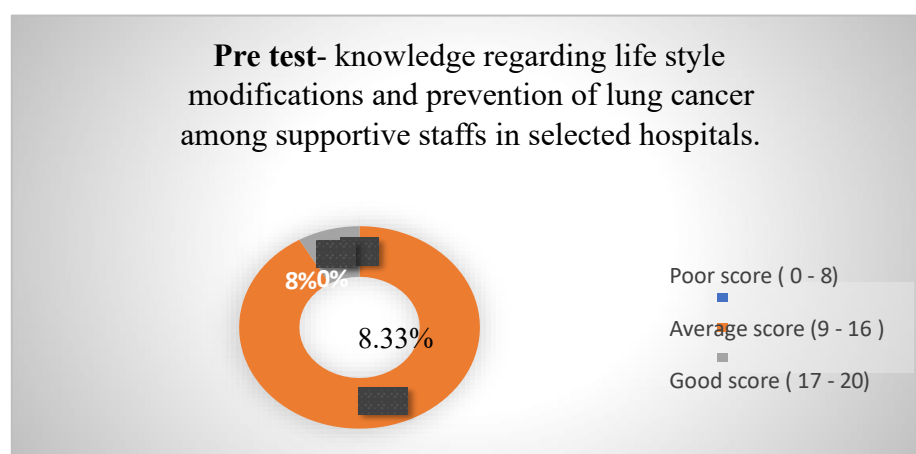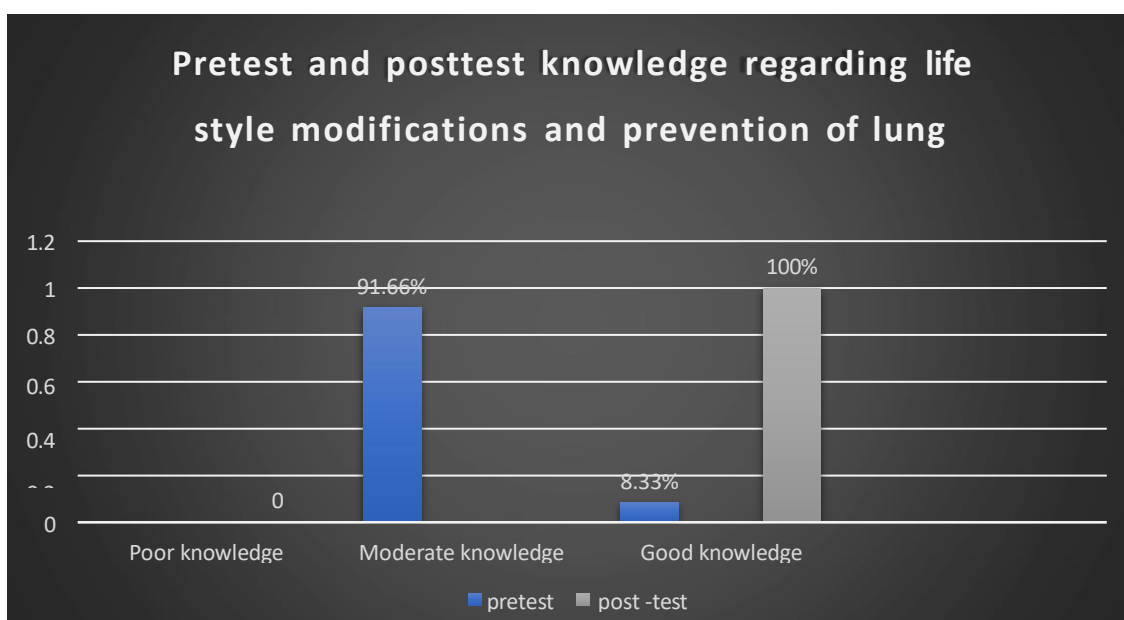

**Fig: 91.66% of them had average knowledge (score 9-16),**

Knowledge	Pretest		Post-test	
	Freq	%	Freq	%
Poor (score 0-8)	0	0	0	0.0%
Average (score 9-16)	55	91.66%	0	0.0%
Good (score 17-25)	5	8.33%	60	100.0%

Section III: The researcher applied a paired t-test for the effectiveness of a self-instructional module on knowledge scores regarding lifestyle modifications and prevention of lung cancer among supportive staffs at selected hospitals. The average knowledge score in the pretest was 14.17% which increased to 18.67% in the post-test. t-value for this test was 18.60 degrees of freedom. The corresponding p-value was small (less than 0.05), and the null hypothesis was rejected. The knowledge among supportive staffs at selected hospitals regarding lifestyle modifications and prevention of lung cancer improved significantly after self-instructional module intervention.

1. Paired t-test for the Effectiveness of self-instructional module on knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staff at selected hospitals.

	Mean	SD	T	df	p-value
Pretest	14.17%	1.47	18.60	59	0.0001
Post-test	18.67%	1.11			

Pre-test and post test average knowledge score regarding lifestyle modifications and prevention of lung cancer among supportive staffs in selected hospitals.
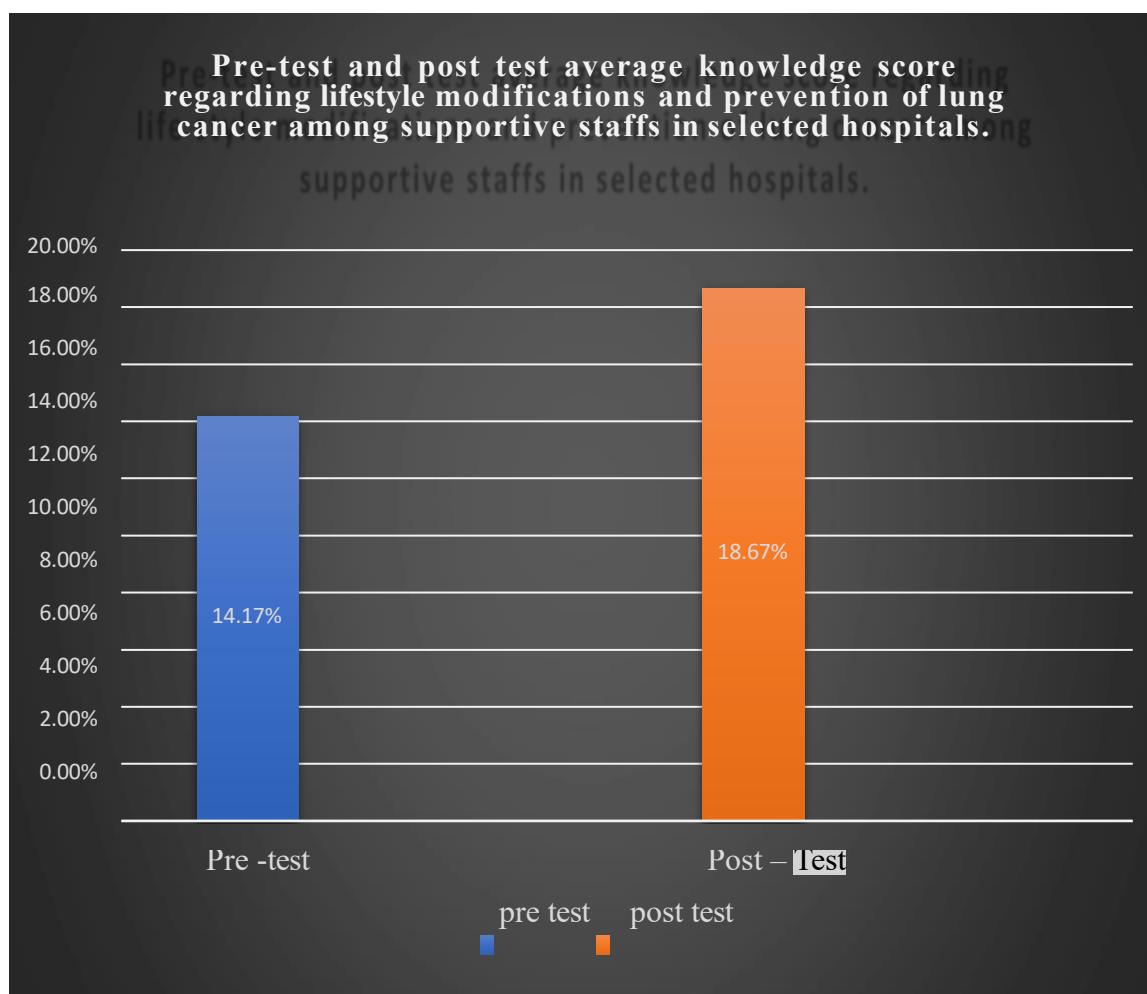
Section IV: Analysis of data to find an association between pretest knowledge findings and selected demographic variables. The association between the pretest knowledge score and demographic variables was assessed by using Chi -Square Level Significance Level (0 to 0.5) (0.01) or small than null hypothesis is rejected.

Association of pretest knowledge scores with selected demographic variables.

There is no significant association between pre-test knowledge score and demographic variables like as age, gender, Area of residency, Area of work, Education, Family income (in rupees), Dietary pattern, Year of experience, Source of information, all demographic variables are not significant p value is greater than 0.05. So there is no statistical association between demographic variables.

Discussion:

Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered, and hypothesis tested. This chapter deals with the analysis and interpretation of the study result of the data collected from 60 samples through a Pre experimental one-group pretest post-test research design. Non-probability purposive sampling was used for the selection of Supportive staff to assess the effectiveness of the self-

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instructional module on knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staff at selected hospitals. To assess the pre-existing knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staff at selected hospitals. To assess the effectiveness of the self-instructional module on knowledge regarding lifestyle modifications and prevention of lung cancer among supportive staff at selected hospitals. To find the association of pretest knowledge scores with selected demographic variables. The collected data was tabulated in a master sheet and analyzed by using descriptive and inferential statistics as per the objectives of the study.

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