



# A STUDY TO ASSESS THE EFFECTIVENESS ON THE PLANNED TEACHING PROGRAM ON PREVENTION OF ASBESTOSIS AMONG THE CONSTRUCTION WORKERS AT SELECTED COMMUNITY WORKING AREA, PUDUCHERRY

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## ABSTRACT:

**Introduction:** Asbestosis is a chronic lung disease caused by inhaling asbestos fibers, which can cause lung tissue scarring and shortness of breath. It is characterized by discrete areas of fibrosis in the wall of respiratory bronchioles and percellular reaction that may narrow and obstruct the airway lumen. **Methodology:** The research approach used for this study was quantitative research approach. A Quasi experimental one group Pre-test and post-test research design was adopted for this present study. By using convenient sampling technique, 30 construction workers were selected for the present study. **Results:** The present study reveals that in pre test for 24 (80%) of mild knowledge and 6(20%) of having moderate knowledge, after doing teaching program of community area conduct post test then having 22(73.3%) high level of knowledge and 8(26.7%) of them having moderate level of knowledge. **Conclusion:** The study findings concluded that on post-test the significant demographic variables are education, nature of job and Any type of lifestyle disease belongs to significant \*- $p < 0.05$ , others are belongs to non- significance.

**Keywords:** Asbestosis, Lung disease, Planned teaching programme

## **INTRODUCTION:**

Asbestosis is a chronic lung disease caused by inhaling asbestos fibers, which can cause lung tissue scarring and shortness of breath. It is characterized by discrete areas of fibrosis in the wall of respiratory bronchioles and percellular reaction that may narrow and obstruct the airway lumen. Exposure to asbestos can occur through primary exposure, secondary exposure, and environmental exposure. People who work with asbestos products are at the most risk of exposure, including miners, millers, insulationators, boilermakers, auto mechanics, electricians, plumbers, firefighters, construction workers, industrial workers, shipyard workers, and power plant workers.

Asbestos exposure can be caused by high levels of asbestos dust over a long period, causing the alveoli to become stiff and irritate lung tissue, making it difficult to breathe. As asbestosis progresses, more lung tissue becomes scarred, and the lung tissue becomes so stiff that it cannot contract and expand normally. Materials and products containing asbestos include car clutch pads, brake linings, construction cement, putties and plaster, insulation, pipe wrapping, siding and roof shingles, and vinyl floor tiles.

Symptoms of asbestosis typically show up 10-40 years after initial exposure, with symptoms ranging from dyspnoea to persistent dry cough, chest tightness, loss of appetite, dry and crackling sounds in the lungs when inhaled, and swelling in the neck or face. Over time, scar tissue replaces normal lung tissue, and an excessive amount can cause reduced pulmonary function.

Diagnosis tests include chest X-rays, computerized tomography (CT) scans, pulmonary function tests, and bronchoscopy to identify abnormalities. Asbestos has no specific treatment, so supportive care is the only available option. Prevention is the best management, and monitoring the occupational environment and minimizing asbestos exposure are crucial for asbestosis control.

## **NEED FOR THE STUDY**

Asbestos-related deaths are increasing globally, with a peak in 1951 and a gradual decline until 1973. A study in Great Britain confirmed the association between asbestos exposure and mortality due to lung cancer, mesothelioma, and asbestosis, as well as an increased risk for stroke and gastric cancer. The presence of asbestos is an independent risk factor for mesothelioma and lung cancer with asbestos exposure. In 2021, the world imports of asbestos exceeded \$444 million, with India, Indonesia, China, Uzbekistan, Sri Lanka, Uzbekistan, and India being the largest importers. The world's largest exporters of asbestos were Russia, Brazil, China, India, and Bulgaria. At the national level, Indian imports of asbestos are expected to reach 404 million kilograms by 2026, with a 1.2% year-on-year average growth rate since 1993. Currently, about 125 million people are exposed

to asbestos at the workplace, with asbestos-related lung cancer, mesothelioma, and asbestosis resulting in 107,000 deaths and 1,523,000 Disability Adjusted Life Years (DALYs). Work-related exposures are responsible for an estimated 255,000 deaths annually.

### **STATEMENT OF THE PROBLEM**

“A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON PREVENTION OF ASBESTOS AMONG THE CONSTRUCTION WORKERS AT SELECTED COMMUNITY WORKING AREA, PUDUCHERRY”

### **OBJECTIVES OF THE STUDY**

- To assess the pretest knowledge regarding prevention on asbestosis
- To evaluate the effectiveness of planned teaching programme regarding prevention of asbestosis among Construction workers.
- To associate the pre- test and post- test level of knowledge on the planned teaching on prevention of asbestosis among the construction workers with their selected demographic variables.

### **RESEARCH APPROACH:**

A quantitative research approach was adapted for this present study.

### **RESEARCH DESIGN:**

Quasi experimental one group Pre-test and post-test research design was adapted for this study.

### **POPULATION:**

The population of the study includes all the construction workers who met the inclusion criteria.

### **SETTING OF THE STUDY:**

The study was conducted in Puducherry.

### **SAMPLE:**

Construction works at Puducherry.

### **SAMPLE SIZE:**

The sample size consists of 30 construction workers.

### **SAMPLING TECHNIQUE:**

A convenient sampling technique was used for the study.

**SAMPLE SELECTION CRITERIA:****Inclusion criteria:**

- Both male and female workers.
- workers with age group (25-50).
- Workers with asbestosis who are residing at Puducherry

**Exclusion criteria:**

- Age less than 25 years.
- Those who are not willing to participate in the study.

**MAJOR FINDING**

In pre test , 24 (80%) of mild knowledge and 6(20%) of having moderate knowledge. In the post test , 22(73.3%) had high level of knowledge and 8(26.7%) of them having moderate level of knowledge. In pretest, mean(6.13) and standard deviation is (3.848) of construction workers regarding prevention of Asbestosis. Post test mean(25.57) and standard deviation is (4.546) of construction workers regarding prevention of Asbestosis. Association between regarding planned teaching programme regarding prevention of asbestosis on both pretest and post-test at selected community area with their selected demographic variables. In pre test there is no significant values. On post test the significant demographic variables are education, nature of job and Any type of lifestyle disease belongs to significant \*-p<0.05, others are belonging to non- significance.

**RESULTS AND DISCUSSION**

The result shows that the distribution of demographic variables according to that most of them having age 13(43.3%)30- 40 years old, 22(73.3%) of them male workers, most of peoples were live in Hindu religion 23(76.7%) those workers having 18(60%) primary level of education, them having nature of job was 13(43.3%) brick layer, most of the workers were 22(73.3) married, those living in 17(56.7%) nuclear family, most of workers having 11 (23.3) 2 children's, those residence was 18(60) rural, family income was 11(36.7) 11000-20000, those having 24(80%) no life style disease, most workers were eating 23 (76.7) both veg and non veg diet, no one having previous level of knowledge about asbestos and 10(33.3%) 10-15 years working in construction field.

**Table 1: Frequency and Percentage wise distribution of level of knowledge regarding prevention of asbestosis.**

Sl. No	Level of Effectiveness	PRE-TEST		POST TEST	
		Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
1.	Mild knowledge	24	80	0	0
2.	Moderate knowledge	6	20	8	26.7
3.	High knowledge	0	0	22	73.3

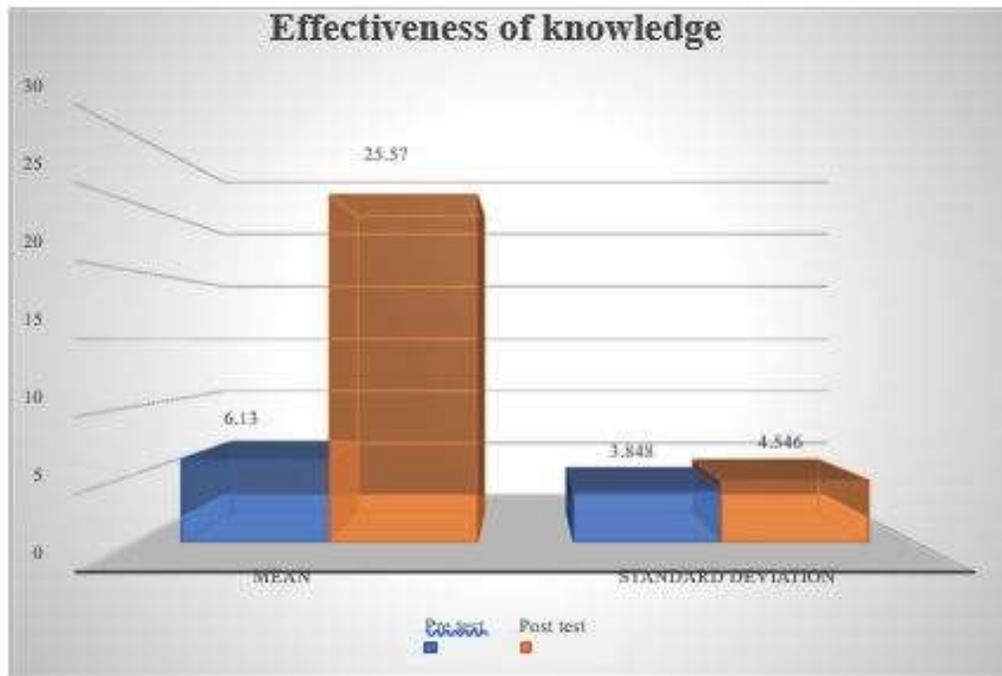
The above table 1 replies that the level of knowledge prevention of asbestosis pre-test for 24 (80%) of mild knowledge and 6(20%) of having moderate knowledge, after doing teaching program of community area conduct post-test then having 22(73.3%) high level of knowledge and 8(26.7%) of them having moderate level of knowledge.

**Table 2: Effectiveness of knowledge on both pre-test and post-test for calculate mean, standard deviation and p value.**

SL.No	Effectiveness on knowledge	Mean	Standard deviation	P value
1.	Pre test	6.13	3.848	0.05*
2.	Post test	25.57	4.546	

Table 2 reveals that the effectiveness of knowledge regarding prevention of asbestosis in mean and standard deviation values for pre test is (6.13+3.848) and post test value is (25.57+4.546) those highly significant value is 0.05\*.

Figure: 1 Effectiveness of knowledge score

**CONCLUSION:**

The present study assessed the effectiveness on planned teaching programme on prevention of asbestosis among construction workers in Puducherry. The study findings concluded that on post-test the significant demographic variables are education, nature of job and Any type of lifestyle disease belongs to significant  $*-p<0.05$ , others are belongs to non- significance.

**RECOMMENDATIONS:**

- Similar study can be conducted in other parts of the country.
- The same study can be conducted with the large samples
- The same study can be conducted in different settings.

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