

## Original Research Article

## Assess the knowledge regarding air pollution among higher secondary school students at Chaubeypur, Kanpur

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### Abstract

Clean air is essential for our health and longevity. Air pollution is one of the greatest environmental issues of the world which threat health of live creatures. The aim of the present study is to assess the knowledge regarding air pollution among higher secondary school students. A simple descriptive design was used which is one of non experimental design. The data was collected by using cross sectional survey approach. The study was conducted in selected school, Chaubeypur. Samples were selected using convenient sampling technique. The over all knowledge score was 9.28, mean 46% with SD 2.11 which shows that over all knowledge level was inadequate. There is no association found between knowledge level with their selected demographic variable.

**Keywords:** Air pollution, Students, clean air

### Introduction

One of the gravest situations in the present world is pollution and loss of natural resources. Air is essential for maintenance of life. It supplies oxygen to human body, which is essential for life [1]. Clean air is essential for our health and longevity. Certain deviations of the body are conveyed by the air e g;- various disease and allergens are transmitted by the air. Pure air acts as natural tonic and it increases the power of resistance [2].

Air pollution is now recognized as an important problem both nationally and worldwide. Air and water pollution have reached alarming levels that have caused serious health problems, as well as negative impact on the environment, and inevitably influencing prospects for long term economic growth [3].

Urbanization and industrialization over the past few years has affected the environment to a great extent. Health effects due to air pollution is becoming a major public health problem with growing traffic congestion and establishment of small to medium scale industries with poor emission controls in urban cities [4]. Air pollution is one of the greatest environmental issues of the world which threat health of live creatures. This major environmental problem affects both developed and developing countries [5].

The health effects of air pollution are both immediate and delayed [6]. The immediate effects are borne by the respiratory system; the resulting state is acute bronchitis. If the air pollution is intense, it may result even in immediate death by suffocation. The delayed effects are chronic bronchitis, lung cancer, bronchial asthma, emphysema and allergies. In winter air pollution creates SMOG (smoke + fog) which has an adverse effect on lung and old people [7-9].

### Objectives for the study

1. To assess the knowledge of students of higher secondary school regarding air pollution.
2. To determine the association between the knowledge of students regarding air pollution with their selected socio demographic variables.

### Hypothesis

**H1:** There is a significant association between the knowledge score and the selected demographic variables.

### Methodology

#### Research Design

In the present study simple descriptive design was used.

#### Research Approach

The data was collected by using cross sectional survey approach.

**Setting of the Study**

The setting of the study is higher secondary school, Chaubeypur, Kanpur.

**Population**

All students of higher secondary school were the population for the present study.

**Sampling**

**Sample:** Students of higher secondary school present in the selected school, Chaubeypur, Kanpur was the sample for the present study.

**Sampling Size:** Sample size comprises of 50 students of higher school in selected school, Chaubeypur.

**Sampling Techniques:** Convenient Sampling Technique was appropriate for the study.

**Sampling Criteria**

**Inclusion Criteria**

- Students studying 11<sup>th</sup> and 12<sup>th</sup> standard in the selected school.
- Students of higher secondary school who are available at the time of data collection
- Students who were willing to participate.

**Exclusion Criteria**

- Students studying in lower grades.

**Description of the Tool**

**Part A** includes selected demographic variables related to students of higher secondary school in the study.

**Part B** consists of multiple choice questions to assess the knowledge of students of higher secondary school regarding air pollution. Each question in the questionnaire had 4 options.

**Data Analysis and Interpretation**

**Demographic Profile of the Participants**

Percentage wise distribution of subjects according to their age group reveals that the highest percentage (42%) were 16 years of age and the second highest percentage (36%) were in the age of 15 year and the lowest percentage of (2%) were >18 year of age.

Percentage wise distribution of subjects according to their gender reveals that equal percentages of males (50%) and females (50%) Percentage wise distribution of subjects according to their area of residence reveals that majority of them were from urban areas (54%) and remaining (46%) were from the rural areas.

Distribution of educational status of father of students in which 18(36%) were with secondary school education, 9(18%) were higher secondary school 8(16%) were primary, 6(12%) had high school and graduate, 3(6) were no formal education.

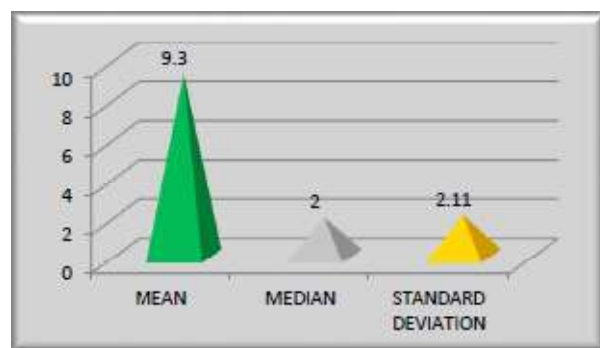
Distribution of educational status of mothers of students in which 14(28%) were with secondary school education, 9 (18%) had No formal education, primary and higher secondary education, 7(14%) were graduates and 2(4%) were high school education

**Knowledge level of students**

**Table 1: Knowledge level of students with overall mean and mean percentage**

Knowledge level	Frequency	Percentage	Mean value	Overall mean %
Moderate	15	30%	9.28%	46%
Mild	34	68%		
Poor	1	2%		

Student’s level of knowledge regarding air pollution reveals that majority (34) 68% of students had mild knowledge (15) 30% of students had moderate knowledge and (1) 2% of students had poor knowledge. Overall mean percentage was 46%.



**Figure 1: Mean, Median, Mode and Standard Deviation according to their Knowledge score**

The overall mean knowledge of school students were 9.3, whereas the median value is 2 and the standard deviation of students is 2.11.

**Association of Knowledge score of Students with their demographic variable**

There is no significant association found between the selected demographic variable like age, sex, area of residence, education of father, education of mother and their knowledge score at 0.05 levels. Hence hypotheses (H1) rejected.

**Conclusion**

The overall mean knowledge of school students were 9.3, whereas the median value is 2 and the standard

deviation of students is 2.11. Overall mean percentage was 46%. There is no significant association found between the selected demographic variable like age, sex, area of residence, education of father, education of mother and their knowledge score at 0.05 levels.

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