

A Study to Assess the Knowledge Regarding Air Pollution and Its Prevention People Residing in Selected Urban Areas of Pune City

Siyona Chavan¹, Akshra Sharon Bansod¹, Rishal Reji¹, Laya K¹, Jasneet Kaur², Mangesh Jabade³

¹B.Sc. Nursing, ²Tutor, ³Associate Professor, Symbiosis College of Nursing, Symbiosis International (Deemed University), Senapati Bapat Road, Pune, Maharashtra

Abstract

Background: World Health Organization, around 4.2 million individuals kick the bucket rashly from the impacts of contaminated, open air each and every year, while a further 3.8 million pass on because of messy indoor air.^{4,5} Air contamination is a tremendous issue and not only for individuals living in brown haze gagged urban areas: through such things as an unnatural weather change and harm to the ozone layer, it can possibly influence every one of us. So what precisely aims this major natural issue? Air contamination counteraction is a financial weight to an individual and to a country on a worldwide scale.¹ Air contamination is a danger to human and condition; along these lines, it is critical to comprehend key sources, causes, wellbeing impacts related with air contamination. This monograph gives a review about air contamination and proposes the appropriate preventive measures to lessen air contamination.²

Methods: A non-experimental descriptive design with quantitative approach, was adopted to assess the knowledge on air pollution and its prevention and Air Quality index among people residing in urban areas of Pune city. It includes 250 samples from selected areas. Non probability convenience sampling technique was adopted in this study.

Result: Based on the objectives of the study which is to assess the knowledge of the people and the association between the demographic variables, the following result has been identified.

The knowledge level was identified as; 20.8% of the people have a poor knowledge level on air pollution, its prevention and air quality index; 76% of the people have an average knowledge regarding air pollution, its prevention and air quality index and only 3.2% of the people have good knowledge regarding air pollution, its prevention and air quality index. By using the paired t test formula, the t value is 0.05. The demographic variable of education alone has an association with 0.001 as the closest value to the average. The other demographic variables of gender, age and employment do not have an association with the t value, as they are more than the average with findings of 0.119, 0.643 and 0.481 respectively.

Key words: *Air Quality Index, Air pollution, Awareness and knowledge.*

Corresponding author:

Mangesh Jabade

Associate Professor, Symbiosis College of Nursing,
Symbiosis International (Deemed University), Senapati
Bapat Road, Pune, Maharashtra -411004
Mangesh Jabade

Introduction

Air contamination might be portrayed as pollution of the climate by vaporous, fluid, or strong squanders or results that can imperil human wellbeing and government assistance of plants and creatures, assault materials, diminish deceivability.¹ The indoor air

contamination became obvious during 80's while outside air contamination has been around for quite a while. Air contamination happens when hurtful or inordinate amounts of substances are brought into Earth's climate. Air contamination is a huge hazard factor for various contamination related maladies.² An air contamination is a material noticeable all around that can effects affect people and the environment. The substance can be strong particles, fluid beads, or gases. A contamination can be of characteristic starting point or man-made. Air contamination chance is a component of the peril of the poison and the introduction to that toxin. ³Air contamination introduction can be communicated for a person, for specific gatherings. An absence of ventilation inside concentrates air contamination where individuals regularly invest most of their energy. India has the most noteworthy demise rate because of air contamination. India additionally has a bigger number of passing from asthma than some other country as per the World Health Organization. There is a positive connection between pneumonia-related passing and air contamination from engine vehicle emanations. ^{4,5}

Statement of the Problem

“A Study to Assess the Knowledge Regarding Air Pollution and Its Prevention among People Residing in Selected Urban Areas of Pune City.”

Objectives of the Study

- To determine the level of knowledge among the people regarding air pollution and its prevention in selected urban areas of Pune city.
- To determine the association between knowledge and socio demographic variables.

Assumption

Assessment will give data on level of awareness and knowledge of people regarding air pollution and prevention measures taken in selected urban areas of Pune.

Research Design

The present study is non experimental descriptive design, which was adopted to assess the knowledge regarding air pollution and its prevention and air quality index among the people residing in selected urban areas

of Pune city.

Population

The term population is the entire set of individuals or objects having common characteristics that meet certain criteria for inclusion in the study.

In the present study, the target population comprises people from selected urban areas of Pune city.

Sample

Sample refers to the portion of the population, which represents the entire population.

In this present study, a sample is considered of random people selected in urban areas of Pune city.

Sample Size

Sample size refers to the numbers of subjects needed for the study. The total sample sizes of the study were 250 people from selected urban areas of Pune city.

Sampling Technique

A non probability convenience sampling technique was adopted.

Criteria for Selection of Sample

Inclusion Criteria

People who reside in urban areas.

Specifically living in Pune city.

Those who knows reading and writing English Language

Exclusion Criteria

People who don't show willingness to participate in study

Physically and psychologically disabled.

Analysis

Section I: Distribution of samples with regard to demographic data.

Distribution of demographic data with regard to

gender.

The data that is presented shows that 48% of the samples were from male and 52% of the sample were from female.

Distribution of demographic data of sample with regard to age.

The data that is presented shows that 80% of the samples were from age group 21-30 years, 5% of them were from the age group 31-40 years, 4% of them were from age group 41-50 years and the remaining 11% of them were from age group 51-60 years.

Distribution of demographic data of samples with regard to Education.

The data presented shows that 2.8% of the samples have less than high school degrees, 26% of the samples have high school degrees, 49.6% of the samples have graduate degrees and 21.6% of samples have post graduate degrees.

Distribution of demographic data of samples with regard to employment.

The data present shows that 20.8% of the sample are government employees, 44.4% of the samples are private employees, 16.8% of the samples are household makers and the remaining 18% of the samples are in business.

Section II: Distribution of knowledge among people regarding air pollution, its prevention and air quality index in selected urban areas of Pune city.

N=250

KNOWLEDGE LEVEL	FREQUENCY	PERCENTAGE
Poor	70	28%
Average	170	68%
Good	10	4%

From the above table, it shows that 28% of the people have a poor knowledge level on air pollution, its prevention and air quality index; 68% of the people have an average knowledge regarding air pollution, its prevention and air quality index and only 4% of the people have good knowledge regarding air pollution, its prevention and air quality index.

Section III: Association between demographic variables.

N=250

Demographic Variables	Frequency	Poor Knowledge	Average Knowledge	Good Knowledge	Paired T Test
Gender :					
Male	110	30	78	02	0.119
Female	140	20	116	04	

Cont... Section III: Association between demographic variables.**N=250**

Age :					
21-30 years	220	40	174	06	0.643
31-40 years	10	03	07	00	
41-50 years	10	02	08	00	
51 and above	10	02	08	00	
Education :					
Less than High school	10	06	04	00	0.001
High school	60	22	37	01	
Graduate	120	10	106	04	
Post Graduate	60	15	44	01	
Employment :					
Private	100	15	82	03	0.481
Government	50	10	38	02	
Business	40	11	29	00	
Household	60	18	41	01	

The association between the demographic variables of gender, age, education and occupation was found by using the paired t test method of calculation. The demographic variable of education alone has an association, having an average of 0.001; which is the closest to 0.05. The other demographic variables of gender, age and employment do not have an association with the t value, as they are more than the average with findings of 0.119, 0.643 and 0.481 respectively.

Ethical Clearance : The study proposal was sanctioned by the ethical committee of Symbiosis College of nursing. This study was explained to participants and informed consent was taken from the participants. Confidentiality of data collected was maintained.

Conclusion

The present study concluded that there is a difference between the demographic variables of gender, age and employment with findings of 0.119, 0.43 and 0.481 respectively. It does not have any association as the values are greater than 0.05. Yet, there is an association between education and knowledge with the value of

0.001 as the closest to 0.05.

The similar research results can be seen in the study conducted by Stephen T. Odonkor and Tahiru Mahami on Knowledge, Attitudes, and Perceptions of Air Pollution in Accra, Ghana: where it has been found that air pollution knowledge increases with the level of education being 2.3 times more likely to be aware of air pollution.

Source of Funding: Self

Conflict of Interest : Nil

Ethical Clearance: Institutional research Committee

Recommendations

1. A similar study can be conducted in the schools for our younger generation who will take over in the future. To make them aware and raise concern and knowledge on air pollution.
2. In order to raise awareness among people various awareness programs and campaigns should be

initiated and conducted by the government.

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