



A Study on Awareness of Secondary School Students on Effects of tobacco smoke towards public health

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ABSTRACT

Pollution free environment is the need of the hour. Smokers and non-smokers both when exposed to tobacco smoke in any form will affect by nicotin, a dangerous substance that present in it which causes Tuberculosis , Stroke, Heart attack, respiratory and other health problems. Tobacco smoke when mixed with gases in air forms cancer causing carcinogens which leads to Lung and other cancers. The *student scientists* conducted a research with title “A Study on Awareness of Secondary School Students on Effects of Tobacco Smoke towards Public Health” through survey method with self-prepared closed ended questionnaire which consists of 15 questions to test the awareness of 261 students of Z.P. High School, koppuravuru, pedakakani Mandal, Guntur District of Andhra Pradesh. Findings: The secondary school students possessed high level awareness on the effects of tobacco smoke towards public health. There is no significant difference in the awareness of secondary school students on effects of tobacco smoke towards public health, irrespective of the variables- class of the student, gender and status of the family with respect to tobacco usage. The students who have awareness should aware people of the society to quit tobacco usage, as school is a powerful agency of education. So, the student scientists created awareness among their villagers through a campaign with school mates. Governments should ban tobacco completely or people should quit tobacco usage entirely to maintain good health and to minimize environmental pollution.

INTRODUCTION

Public health is utmost important all over the world. Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity and the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion and political belief, economic or social condition. Smoke released from burning tobacco or tobacco related products leads to severe health problems. Let's know some words related to tobacco smoking:

- 1) **Voluntary Smoking:** Direct smoking of tobacco or tobacco related products voluntarily is called Firsthand or Direct or Voluntary Smoking.
- 2) **Involuntary Smoking / Passive Smoking:** When Nonsmokers are exposed to Secondhand smoke (SHS), it's called *involuntary smoking* or *passive smoking*. When you breathe in SHS, you take in nicotine and toxic chemicals the same way Active smokers do. If we breath more SHS, the higher the levels of these harmful chemicals will be absorbed by our body.
- 3) **Firsthand smoke:** The smoke exhaled by a person who smokes voluntarily.
- 4) **Second Hand Smoke / SHS / Environmental tobacco smoke / ETS /Passive Smoke/ Involuntary Smoke :** Secondhand smoke refers to the smoke exhaled by a person who smokes voluntarily or that is emitted by burning cigarettes, pipes, cigars, or other tobacco related products.
- 5) **Third hand Smoke (THS) or residual tobacco smoke:** Particles from SHS can settle in dust and on surfaces and remain there long after the smoke is gone. Some studies suggest the particles can last for even months. Even though it's no longer in the form of smoke, researchers often call this *third hand smoke* (THS) or *residual tobacco smoke*. Particles that settle out from tobacco smoke may combine with gases in the air to form cancer-causing compounds that settle on the surfaces. Carcinogens that are known to cause lung cancer have been found in dust samples taken from the homes of people who smoke. Research has also shown that third hand smoke can damage human DNA in cell cultures and might increase lung cancer risk in lab animals. There is no safe level of exposure for secondhand smoke (SHS). It is as harmful as the firsthand smoke. Nonsmokers who inhale secondhand smoke are also affected by chemicals contained in it same as the smokers by absorbing higher concentrations of nicotine and carcinogens (cancer-causing agents). The most secondhand smoke exposure takes place inside homes and job sites. In such cases, it's nearly impossible to avoid secondhand smoke as a nonsmoker. This is especially true for children whose parents smoke inside houses and cars. SHS cannot be controlled with ventilation, air cleaning, or by separating smokers from non-smokers in multi-unit buildings of residences or work places if tobacco smoking is allowed. It can move through air ducts, wall and floor cracks, elevator shafts, and along crawl spaces to contaminate units on other floors, even those that are far from the smoke.

The effect of Secondhand smoke on children's health

Young children also affected by secondhand smoke mostly because of parents and other members of family who smokes at home. Studies show that children whose parents smoke will get sick more often, have more lung infections (like bronchitis, pneumonia and tuberculosis), more likely to cough, wheeze, and have shortness of breath, delayed lung development and get more ear infections too. SHS can also trigger asthma attacks or make asthma symptoms worse. Some of these problems might seem small, but think of the expenses, doctor visits, medicines, losing school time, and often lost work time for the parent who must stay home with a sick child and the discomfort the child go through. In very young children, secondhand smoke increases the risk for more serious problems, including sudden infant death syndrome (SIDS) also. Pregnant women who are exposed to secondhand smoke may also deliver children with low birth weights.

The effects of second hand smoke on adult's Health

Exposure of adults to secondhand smoke when they work with others who smoke around them or attending social or recreational events or living with active smokers may lead to severe health problems. Some of them are *cardiovascular diseases*: Nonsmokers who are exposed to secondhand smoke are 25 to 30 percent at a greater risk of heart disease and have a higher risk of stroke and can make pre-existing cases of high blood pressure. *Respiratory diseases*: Adults may develop asthma and have frequent respiratory illnesses including tuberculosis. Tobacco smoke might make our symptoms worse. *Lung cancer*: Secondhand smoke may even cause lung cancer in adults who don't directly smoke tobacco products. Living or working with someone who smokes may increase your individual lung cancer risk by as much as 30 percent. *Other Cancers*: Cancers of the Larynx (Voice box), Nasopharynx (the part of the throat behind the nose), and breast, leukemia, lymphoma and sinus cavity are also possible.

NEED OF THE STUDY

Not only by direct smoking, we will get the adverse health effects of smoking by the exposure to secondhand smoke in public places and workplaces such as healthcare, educational, and government facilities and on public transport, parties, recreational areas, buildings restaurants, bars etc.. This is a serious health concern that can affect both adults and children who are exposed to secondhand smoke. Exposure to tobacco smoke in any form is harmful.

According to World Health Organization nearly 1.2 million premature deaths per year are related to secondhand smoke worldwide. There are over 7,000 chemicals found in tobacco smoke. In all, at least 69 are cancerous and about 250 are harmful in other ways. Tobacco kills up half of its users. Usage of tobacco products leads to severe health problems and increases the risk of different types of cancers by polluting the environment. Avoidance of secondhand smoke is increasingly being viewed as a human right because of its adverse health effects. We have to improve our quality of life by quitting usage of tobacco. As the public learns more about the harmful effects of smoking, the overall smoking rates will go down. With help of students we can mobilize the people in our society to quit tobacco smoke.

Objectives of the study

- To find the awareness of secondary school students on effects of tobacco smoke towards public health.
- To find the awareness of secondary school students on effects of tobacco smoke towards public health due to variation of the variables i.e., Status of the student (Lower Secondary students Vs Higher Secondary students) , Gender (Boys Vs Girls) and Status of the family with respect to tobacco usage (User family Vs Non-User family)

Hypothesis of the study

- There is no significant difference in the awareness of lower secondary and higher secondary school students on the effects of tobacco smoke towards health.
- There is no significant difference in the awareness of boys and girls of secondary school students on the effects of tobacco smoke towards public health.
- There is no significant difference in the awareness of secondary school students belonging to user and non-user families with respect to tobacco usage on the effects of tobacco smoke towards public health.

Method of Research

Survey method is chosen for the present study.

Research Tool

A self-prepared closed ended questionnaire which consists of 15 questions with Yes or No responses is personally administered by the student scientists to 261 students of Z.P. High School, Koppuravuru, pedakakani mandal, Guntur District of Andhra Pradesh.

Scoring Procedure

Scoring has been done by allotting 2 marks for the response ‘yes’ and 1 mark for the response ‘No’ for positive questions and 1 mark for the response ‘Yes’ and 2 marks for the response No’ for the negative question.

Statistical Techniques Used

Mean, SD, % of Mean and ‘t’ value were calculated for the present study.

ANALYSIS AND INTERPRETATION OF DATA

Objective – 1:

- To find the awareness of secondary school students on effects of tobacco smoke towards public health.

Table - 1.

Whole	Mean	SD	% of Mean
261	29.27	1.16	97.633

From the above table-1, it is concluded that the secondary school students possessed high awareness (97.3 %) on the effects of tobacco smoke on public health. Even though the students have high awareness about the effects of tobacco smoke, they are unable to prevent their parent’s tobacco usage because, their parents won’t listen to their children regarding this aspect.

Objective – 2: To find the awareness of secondary school students on effects of tobacco smoke towards public health due to variation in Status of the student (Lower Secondary students Vs Higher Secondary students)

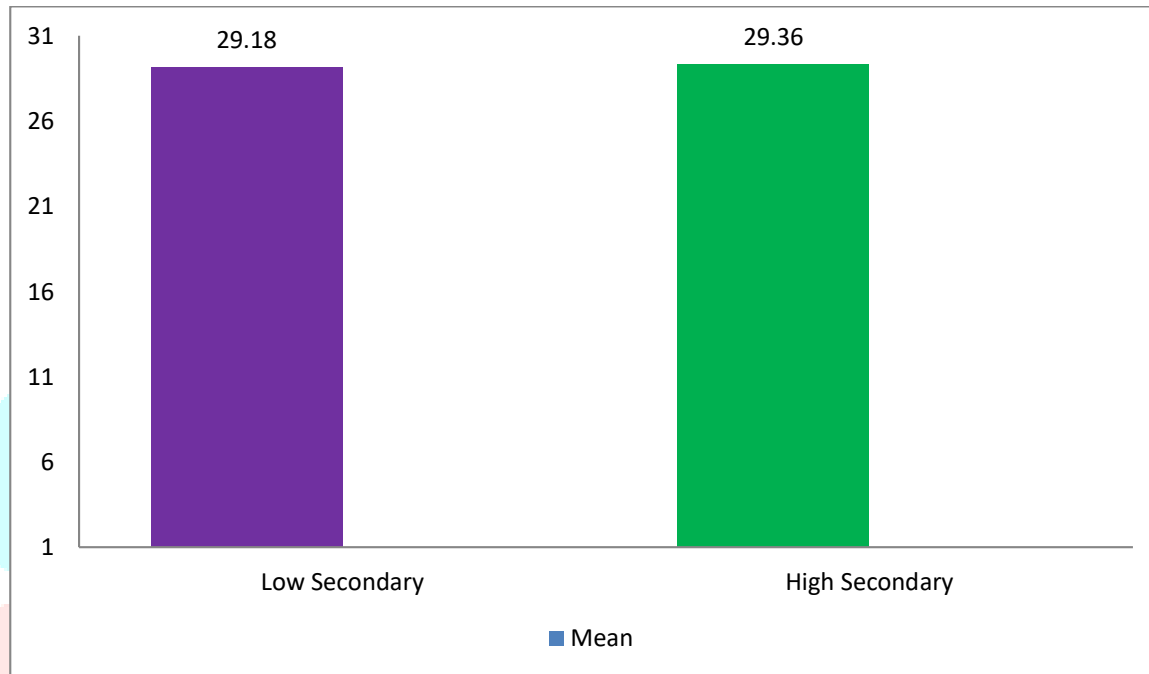
Hypothesis- 1: There is no significant difference in the awareness of lower secondary and higher secondary school students on the effects of tobacco smoke towards health.

Table -2. Mean SD and ‘t’ value of lower and higher secondary school students

Class	No	Mean	SD	S.Ed	‘t’
Lower Secondary	126	29.18	1.06	0.1360	1.323 ^{NS}
Higher Secondary	135	29.36	1.16		

NS- not significant at 0.05 level.

**Graph showing the mean values of
Lower and higher secondary school students**



From the above Table-2, it is observed that, the calculated ‘t’ value is 1.323 is less than the table value 1.97 at 0.05 level. Hence the hypothesis ‘There is no significant difference in the awareness of lower and higher secondary school students about effects of tobacco smoke on people’s health’ is accepted. Both lower secondary and higher secondary school students are having the same level of awareness on the effects of tobacco smoke towards public health.

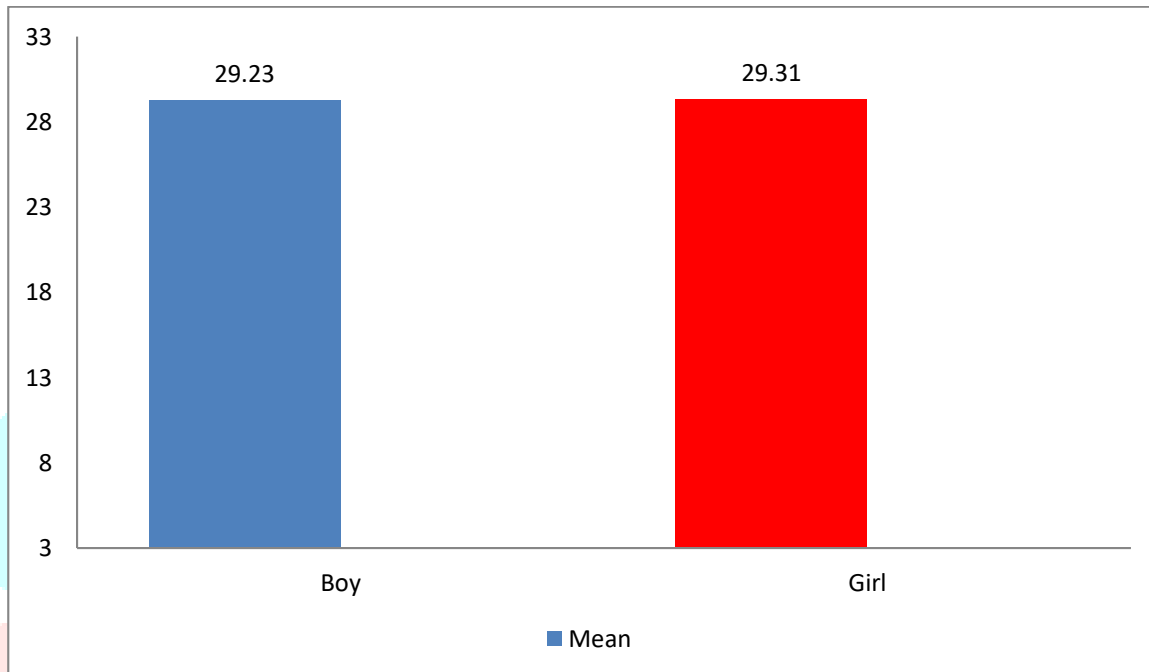
Objective – 3: To find the awareness of secondary school students on effects of tobacco smoke towards public health due to variation in Gender (Boys Vs Girls)

Hypothesis- 2: There is no significant difference in the awareness of boys and girls of secondary school students on the effects of tobacco smoke towards public health.

Table -3. Mean SD and 't' value of boys and girls

Gender	No	Mean	SD	S.Ed	't'
Boy	129	29.23	1.16	0.134	0.5970 ^{NS}
Girl	132	29.31	1.07		

NS- Not significant at 0.05 level

Graph showing the means of Boys and girls

From the above Table-3, it is observed that, the calculated 't' value 0.5970 is less than the table value 1.97 at 0.05 level. Hence the hypothesis 'there is no significant difference in the boys and girls awareness on the effects of Tobacco smoke towards public health' is accepted.

Both boys and girls are having the same level of awareness on the effects of Tobacco smoke towards public health.

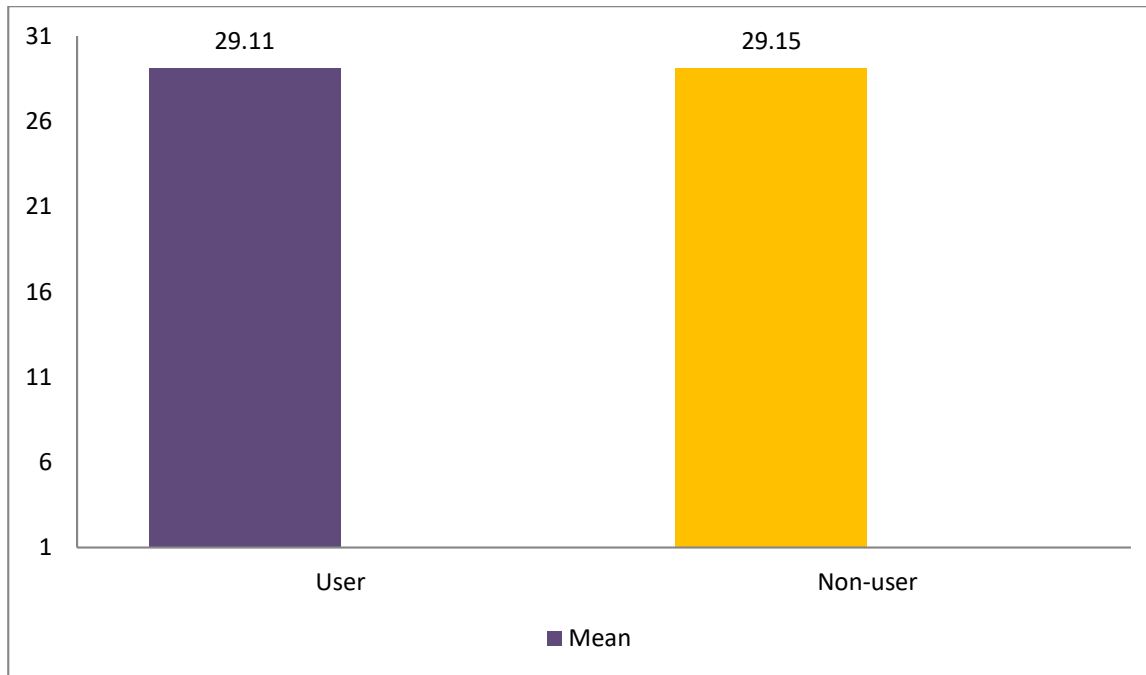
Objective – 4: To find the awareness of secondary school students on effects of tobacco smoke towards public health due to variation in Status of the family with respect to tobacco usage (User family Vs Non-User family)

Hypothesis – 3: There is no significant difference in the awareness of secondary school students belonging to user and non-user families with respect to tobacco usage on the effects of tobacco smoke towards public health.

Table -4. Mean SD and 't' value of user and non-user families

Type of users	No	Mean	SD	SED	't'
Users	84	29.11	1.21	0.114	0.3508 ^{NS}
Non-users	177	29.15	1.06		

NS- not significant at 0.05 level.

Graph showing the mean values of the students belonging to user and non-user families

From the above table -4 it is observed that the calculated 't' value is 0.3508 is less than the table value 1.97 at 0.05 level. Hence the hypothesis 'There is no significant difference in the awareness of secondary school students belonging to user and non-user families with respect to tobacco usage, on the effects of tobacco smoke towards public health' is accepted. Students belonging to both user and non-user families are having the same level of awareness about the effects of tobacco smoke on people's health.

FINDINGS AND DISCUSSION

Findings of the present study are 1. Secondary School students have high (97.633) awareness on the effects of Tobacco smoke towards public health. 2. There is no significant difference in the awareness of lower and higher secondary school students on the effects of tobacco smoke on public health. 3. There is no significant difference in the awareness of boys and girls on the effects of tobacco smoke towards public health. 4. There is no significant difference in the awareness of secondary school students belonging to user and non-user families with respect to tobacco usage on the effects of tobacco smoke towards public health.

Solutions to protect people's health from tobacco smoke

Government should prohibit tobacco usage in any form. Prohibiting smoke in public places and workplaces such as healthcare, educational institutions, government offices, on public transport, outside of schools, parties, recreational areas, buildings, restaurants, bars etc., should be followed by each and every individual as our social responsibility to maintain good health. . If you are around the tobacco smoke, the only way you can fully eliminate exposure is by leaving the affected place entirely. Smoke-free work place policies should be implemented strictly to prevent SHS exposure at work. Along with smoking restrictions, extra bonus should be announced to non-smokers at work place to minimize or quit the tobacco usage. Government should strictly implement the pollution control parameters to the processing and manufacturing units of tobacco products such as factories or companies nearby habitations, especially nearby educational institutions as today's students are the future citizens. Smoking should be strictly prohibited and implemented in indoor spaces or buildings, as we can't prevent SHS by cleaning the air or ventilating the buildings. Smokers should quit smoking to save their children, other family members, pets, guests and society too. Quit smoking is the only way to protect people and environment to attain quality in life.

CONCLUSION: Pollution free environment is need of the hour to maintain good health. The students who have awareness should aware people of the society to quit tobacco usage, as school is a powerful agency to educate people. Either governments should ban tobacco usage completely or people should quit tobacco usage entirely to maintain good health and to minimize environmental pollution. We have to improve the quality of our lives with unity.

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