1. Introduction

The consumption of tobacco causes maximum health damage, worldwide. Epidemiological research over the past several years has confirmed the harmful effects of tobacco consumption. Developing countries are projected to contribute 70% of tobacco-related deaths by 2020\(^1\).

1.1 Tobacco is available in various forms\(^2,3,4\)

Chewing tobacco: Chewing is one of the oldest ways of consuming tobacco leaves. It is consumed orally, but does not involve actually chewing. Small amounts are placed at the bottom lip, between the gum and the teeth, where it is gently compressed. This stimulates the salivary glands, which forms spittoon. It is taken with lime by rubbing in hands and then placing in lower lips.

Creamy snuff is a tobacco paste, consisting of tobacco, clove oil, glycerine, spearmint, menthol, and camphor. It is locally known as "mishri" in some parts of Maharashtra.

Dipping tobacco is a form of smokeless tobacco. Dip is occasionally referred to as "chew". A small cluster of dip is 'pinched' out of the tin and placed between the lower or upper lip and gums.

Gutka, (also spelled gutkha, guttkha, guthka) is a preparation of crushed betel nut, tobacco, and sweet or sour...
flavours. It is manufactured in India and exported to a few other countries. A mild stimulant, it is sold across India in small, individual-size packets.

Snuff is a generic term for fine-ground smokeless tobacco products. Snus, is a moist powder tobacco product that is taken by keeping it under the upper lip for long time. There is no need for spitting.

The gutka, bidi, cigarette, smoking tobacco pipes (hukka in hindi) and chewing tobacco are the mostly consumed form of tobacco in the remote areas and villages of the country.

1.2 Various side-effects and disease related to tobacco consumption<sup>5,6,7</sup>

The health effect of tobacco mainly depends on the way the tobacco is used (smoked, snuffed or chewed) and the amount which is used. In the developing countries, tobacco consumption is increasing day by day.

a) Primary risks: The main health risks are cardiovascular diseases, diseases of the respiratory tract such as Chronic Obstructive Pulmonary Disease (COPD) and emphysema, and cancer, particularly lung cancer and cancers of the larynx and mouth.

b) Organic carcinogens: Polynuclear aromatic hydrocarbons, Acrolein, Nitrosamines are also present in tobacco.

c) Radioactive carcinogens: Tobacco and tobacco smoke contains small amounts of lead-210 (210Pb) and polonium-210 (210Po) both of which are radioactive carcinogenic factors.

d) Nicotine and addiction -Nicotine that is present in cigarettes or cigarette substitute is a stimulant which results in physical and/or psychological dependence.

e) Smoking and cardiovascular disease: Smoking increases the risk of heart disease. It may lead to the narrowing of blood vessels, increasing the chances of a blockage, and causes heart attack or stroke.

f) Oral health: It may cause oral cancer. Teeth bones are degraded. Smokeless tobacco causes gingival depression and white mucosal abrasions. It also produces staining of teeth. Halitosis is common among tobacco smokers. Other oral diseases include leukoplakia, Snuff Dipper's lesions and smoker's palate. In addition, many smokers report a loss of taste sensation and salivary changes. Tooth loss has been shown to be 2to 3 times higher in smokers than in non-smokers.

g) Physical and psychological effects on smokers: Nicotine present in tobacco causes drug dependence. Withdrawal symptoms include irritability, jitteriness, dry mouth and rapid heartbeat. Longer gap may lead to insomnia and even mild depression.

h) Tobacco and reproduction: Tobacco decreases sperm count, may result in abortions among pregnant smokers and presents danger to developing foetus.

1.3 Risk caused by different types of Tobacco<sup>8,9</sup>

a) Low tar/light cigarettes: There is no evidence present to show that these "Low Tar," "Light," or "Ultra-Light" cigarettes are safe.

b) Cigar smoking: It is associated with health problems like cancer.

c) Pipe smoking: Various health risks are involved, like oral cancer. People inhaling these smoking may develop cancer, respiratory infections and asthma.

2. Methodology

We conducted the survey of remote village areas of Unnao in Uttar Pradesh. According to this survey we have conducted the interview of 600 people (400 male and 200 female) of five villages and divided into different groups according to their ages. Tobacco was found to be consumed in five forms i.e. bidi, cigarette, gutka, hookah and chewing tobacco with lime.
Table 1. Men and women involved in the study with different age groups

| Age group           | Men (no.) | Women (no.) |
|---------------------|-----------|-------------|
| Upto 18 years       | 100       | 40          |
| 18-30 years         | 100       | 60          |
| 30-50 years         | 100       | 60          |
| 50 years and above  | 100       | 40          |
| Total               | 400       | 200         |

3. Result and Discussion

The study is conducted in the different age group of men and women. The present study shows that the bidi was taken maximum by 25% among age group 50 years and above followed by 20% among 30-50 and 5% among age group 18-30 years. Cigarette was taken maximum (20%) by the age group 18-30 years followed by 15% among teenagers (upto 18 years), 10% by 30-50 years group and 5% by 50 and above. Hookah use was found to be 10% by the age group 50 years and above and 5% by 30-50 years age group. Tobacco consumption in the form of gutka was found to be highest i.e. 40% by the age group 18-30 years, 35% men from the age group 30-50 years, 25% of the group upto 18 years and 20% of the group 50 years and above took gutka. Chewing tobacco with lime was most prevalent among the age group 50 and above i.e. 15% followed by 10% among the age group 30-50 years and 10% among the age group 18-30 years. Table 2 and fig. 1 represents the tobacco consumption by male.

The cigarette consumption was found to be nil among females in any age group and bidi consumption percentage was also very less i.e. 3% among age group 50 and above and 2% among the age group 30-50. Maximum consumption of tobacco in the form of gutka was found among females in the age group 50 and above i.e. 10%. The 7% females among 50 and above and 5% from the age group liked to have tobacco by rubbing it with lime. Hookah was used in the age group 50 and above i.e. 5%. No consumption of tobacco was found among the females upto 18 years of age. Table 3 and fig. 2 represents the tobacco consumption by female.

Table 2: Results for tobacco consumption in men

| Age group          | Bidi | Cigarette | Smoking tobacco by pipe or (Hookah in Hindi) | Gutka | Chewing tobacco with lime | None |
|--------------------|------|-----------|---------------------------------------------|-------|---------------------------|------|
| Upto 18            | -    | 15%       | -                                           | 25%   | -                         | 60%  |
| 18-30              | 5%   | 20%       | -                                           | 40%   | 10%                       | 25%  |
| 30-50              | 20%  | 10%       | 5%                                          | 35%   | 10%                       | 20%  |
| 50 and above       | 25%  | 5%        | 10%                                         | 20%   | 15%                       | 25%  |
| Total              | 50%  | 50%       | 15%                                         | 120%  | 35%                       | 130% |

Fig.1 Graphical representation of tobacco consumption by male
Table 3: Result of tobacco consumption in female

| Age group     | Bidi | Cigarette | Smoking tobacco by pipe or (Hookah in Hindi) | Gutka | Chewing tobacco with lime | None |
|---------------|------|-----------|---------------------------------------------|-------|---------------------------|------|
| Upto 18       | -    | -         | -                                           | -     | -                         | 40%  |
| 18-30         | -    | -         | -                                           | 3%    | -                         | 57%  |
| 30-50         | 2%   | -         | -                                           | 5%    | 5%                        | 48%  |
| 50 and above  | 3%   | -         | 5%                                          | 10%   | 7%                        | 15%  |
| Total         | 5%   | -         | 5%                                          | 18%   | 12%                       | 164% |

Fig. 2 Graphical representation of tobacco consumption by female

4. Conclusion

From the present study, we have concluded that new generation i.e. under age group upto 18 and 18-30 are excessive tobacco consumer as compared to other group persons. These areas excessively use unknown type of tobacco followed by gutka consumption. Some education programme should be conducted by the Indian Government in these types of areas regarding the health related side effects of the tobacco consumption.

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