

## EFFECTS OF TOBACCO SMOKING OF ADOLSCENTS WITH SPECIAL REFERENCE TO KANCHIPURAM DISTRICT, TAMILNADU

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**ABSTRACT:** *The objective of the study to examine the effects of tobacco smoking of adolescents in Kanchipuram district of Tamilnadu. Quantitative method was employed for the study. The respondents were selected randomly from two higher secondary schools in the study area. The descriptive research design as well as questionnaire as a tool was used for the study. The below analysis illustrated that 71.5% of the respondents belong to the age group of 15-17 years have never used tobacco smoking while as 79.5% of the respondents belong to the age group of 15-17 years have ever used tobacco smoking in the current academic year, 31% of the respondents who studied up to 10<sup>th</sup> standard have never used tobacco smoking and 41% of the respondents who studied up to 12<sup>th</sup> standard have ever used tobacco smoking in the current academic year.*

**Keywords:** Adolescents, Tamilnadu, Smoking, Tobacco.

### INTRODUCTION

One of the most widely discussed public health problems in the world is the health impact of tobacco use, which kills more than 6 million people globally every year. The mortality due to tobacco is more than that associated with tuberculosis, HIV/AIDS, and malaria combined [World Health Organization; 2008]. Tobacco related diseases, particularly cancers, have become nightmarish to man in recent decades and continue to lead the table among the top ten male cancers in India [R. Dikshit & P. C. Gupta; 2012]. The dreadful issues range from suffering and disfigurement due to oral cancer at one end [Arnachalam et al; 2011] to the dreaded lung cancer with its high mortality rates at the other end [Ferlay et al; 2010]. Additionally, approximately 10 different types of cancers with varying prognosis have been found to have a direct or indirect link to tobacco habits [Regional Cancer Centre; 2012]. While these remain the alarming facts about tobacco related cancers, the list of tobacco related diseases other than cancers number more than a dozen, virtually affecting every organ of the body [Rao & Chaturvedi; 2010].

Tobacco use in adolescents is reaching pandemic levels. The World Bank has reported that nearly 82,000-99,000 children and adolescents all over the world begin smoking every day [Jha, P. & Chaloupka, FJ; 1999]. About half of them would continue to smoke to adulthood and half of the adult smokers are expected to die prematurely due to smoking related diseases. If current smoking trends continue, tobacco will kill nearly 250 million of today's children [Heishman, SJ; 2001]. India is the second most populous country in the world. It is a secular country but the Hindus form the majority. Hinduism traditionally advocates abstinence from all intoxicants. Even then, India is the third largest producer and consumer of tobacco in the world. The country has a long history of tobacco use. Tobacco is used in a variety of ways in India; its use has unfortunately been well recognized among the adolescents [Patel, DR; 1999]. Tobacco addiction of a large number of adults has been initiated during the adolescence [Warren et al; 2000]

Among the 1 billion smokers in the world, nearly 80% live in low and middle income countries. In India, it is estimated that more than one-third of the population aged 15 years and above are current tobacco users. Over a million tobacco related deaths are reported annually in India [International Institute for Population Sciences (IIPS); 2010]. The figures are alarming for a country like India which has the world's largest youth population [The Economic Times; 2016]. Currently the tobacco companies aggressively target young population of the developing countries to market tobacco products.

India's tobacco control measures are complex because of the large population, easy availability of inexpensive tobacco products, and disproportionate implementation of tobacco control laws particularly in the rural areas [Kaur & Jain; 2011].

Today, the single greatest opportunity for preventing non-communicable disease in the world points to the prevention of tobacco use in young people [Kumar et al; 2014]. Improvement of tobacco control measures, particularly targeting the youth, is important because of its long term impact in adulthood. It is understood that tobacco addiction among the majority of adults has been initiated during their adolescence period [Park; 2011]. It is estimated that nearly three quarters of premature deaths among adults are due to behavioural patterns that emerge during adolescence, including smoking, violence, and sexual behaviour [World Health

Organisation; 2002]. The Global Youth Tobacco Survey (GYTS), a cross-sectional survey conducted among school students, aged 13–15 years, highlighted that the overall prevalence of current tobacco users in India was 14.6% in the year 2009. The GYTS also pointed out that second hand smoke exposure was found among one in five students at homes, where others smoked [Gajalakshmi & Kanimozhi; 2010]. Similar to tobacco, alcohol consumption during adolescent period could have profound implications in health, risking brain development, and violence and was found to be a significant predictor for alcohol dependence in adulthood [Bonomo et al; 2004].

## PATTERNS OF USE

Tobacco is used in a wide variety of ways in India including smoking and smokeless use.

### Smoking Practices

Tobacco is smoked in the forms of **beedis** and cigarettes or by using devices like **hooka**, **hookli**, **chhutta**, **dhumti**, or **chillum**. Smoking of cigars and pipes are not common in India, as they are in most western countries.

Cigarette smoking is common in urban areas. Both locally manufactured and imported brands of cigarettes are available. However, because of relatively higher cost of cigarettes as compared to other forms of tobacco, cigarette smoking is more common among the upper and middle socioeconomic classes than among the poor population.

**Beedi** is a cheap smoking stick, handmade by rolling a dried, rectangular piece of temberni leaf (*Diospyros melanaxylon*) with 0.15–0.25 g of sun-dried, flaked tobacco filled into a conical shape and the roll is secured with a thread. The length of a beedi varies from 4.0–7.5 cm. Beedis are commercially available in small packets.

**Hooka** (a hubble bubble Indian pipe) is an indigenous device, made out of wooden and metallic pipes, used for smoking tobacco. The tobacco smoke passes through water kept in a spherical receptacle, in which some aromatic substances may also be added. Hooka smoking is a common method of socializing among the village folk, especially in the Northern and Eastern parts of India, and is a part of the rural cultural life. Its use is more common among the adults and older

generation. However, it is not popular among adolescents, because the adults generally discourage younger population from using hooka.

**Hookli** is a short clay pipe-like device, being about 7 cm long, and is used for smoking tobacco in some parts of the country.

**Chhutta** is a coarsely prepared roll of tobacco (cheroot), smoked with the burning end inside the mouth (reverse chhutta smoking). Its use is prevalent in coastal areas of the province of Andhra Pradesh in southeastern India.

**Dhumti** is a cigar-like product made by rolling tobacco leaves inside the leaf of jackfruit tree. Occasionally, dried leaf of a banana plant is used. Males smoke dhumti in conventional manner, whereas females smoke it in a reverse manner, i.e., keeping the burning end inside the mouth. Dhumti smoking is quite popular in the Goa province of the Western India.

According to the most recent Government of India's National Sample Survey data, there are 184 million tobacco consumers in India. About 40% of them use smokeless tobacco, 20% consume cigarettes, and another 40% smoke beedis. Smokeless tobacco use includes *pan* masala and chewing of tobacco in different forms. Tobacco is also smoked using indigenous devices like hooka, chhutta or dhumti in different parts of the country. Thus, in contrast to the other parts of the world, tobacco is used in a variety of ways in India, which include smoking and smokeless tobacco use.

## **RESEARCH METHODOLOGY**

### **Objective of the Study**

To analyze the effects of tobacco smoking among adolescents in Kanchipuram district of Tamilnadu

### **Sources of Data**

The primary information gathered from respondents through questionnaire and the secondary data was collected from books, research papers, news papers, websites etc.

### **Research Design**

In this study investigator used descriptive research design has used to describe the effects of tobacco smoking of adolescents regarding their age groups and also their education in Kanchipuram district.

## Research Tools and Techniques

A pretested self-structured questionnaire was used for the study. The respondents were selected randomly in two Higher Secondary Schools of Kanchipuram district. A total of 1200 self-reporting questionnaires were distributed to the students for the study. The participation in the study was 89% with 1114 students responding by returning the filled-up questionnaire.

## Data Analysis

Statistical analysis was done using the SPSS version 16 software. For categorical variables, Analysis of Variance Test (ANOVA) was used.

**Table: 1. Distribution of never and ever users of tobacco in the current academic year based on age group and education**

Factors	Never users (n=1031)	Ever users in the current academic year (n=83)	Total	p-value
<b>Age group</b>				
<14 years	254 (24.6)	6 (7.2)	260 (23.3)	0.0001*
15-17 years	738 (71.5)	66 (79.5)	804 (72.2)	
>18 years	39 (3.7)	11 (13.3)	50 (4.5)	
<b>Tobacco Smoking use among Adolescents based on their Education</b>				
Factors	Never users (n=1031)	Ever users in the current academic year (n=83)	Total	p-value
9 <sup>th</sup> Class	191 (18.5)	9 (10.8)	200 (18)	0.019*
10 <sup>th</sup> Class	320 (31)	19 (22.9)	339 (30.4)	
11 <sup>th</sup> Class	218 (21.1)	21 (25.3)	239 (21.5)	
12 <sup>th</sup> Class	302 (29.3)	34 (41)	336 (30.2)	

Primary data

The above table shows that 24.6% of the respondents belong to the age group of <14 years have never use tobacco smoking, 7.2% of the respondents belong to the age group of <14 years have ever used tobacco smoking in the current academic year, 71.5% of the respondents belong to the age group of 15-17 years have never used tobacco smoking while as 79.5% of the respondents belong to the age group of 15-17 years have ever used tobacco smoking in the current academic year, 3.7% of the respondents belong to the >18 years never used tobacco smoking while as 13.3% of the respondents belong to the age group of >18 years have ever used tobacco smoking in the current academic year. A significant difference was observed among the age groups of respondents.

With regard to education of the respondents, the above table reveals that 18.5% of the respondents who studied up to class 9<sup>th</sup> have never use tobacco smoking as compared to 10.8% of the respondents who studied up to 9<sup>th</sup> have ever used tobacco smoking in the current academic year, 31% of the respondents who studied up to 10<sup>th</sup> standard have never used tobacco smoking as compared to 22.9% of the respondents who studied up to 10<sup>th</sup> standard have ever used tobacco smoking in the current academic year, 21.1% of the respondents who studied up to 11<sup>th</sup> standard have never used tobacco smoking as compared to 25.3% of the respondents who studied up to 11<sup>th</sup> standard have ever used tobacco smoking in the current academic year, 29.3% of the respondents who studied up to 12<sup>th</sup> standard have never used tobacco smoking as compared to 41% of the respondents who studied up to 12<sup>th</sup> standard have ever used tobacco smoking in the current academic year. A significant difference was observed among the respondents based on their education.

## **FINDINGS**

- 71.5% of the respondents belong to the age group of 15-17 years have never used tobacco smoking while as 79.5% of the respondents belong to the age group of 15-17 years have ever used tobacco smoking in the current academic year.
- 31% of the respondents who studied up to 10<sup>th</sup> standard have never used tobacco smoking.
- 41% of the respondents who studied up to 12<sup>th</sup> standard have ever used tobacco smoking in the current academic year.

## **PREVENTIVE STRATEGIES**

Considering the enormous adverse health consequences accompanying tobacco addiction, it is very important to develop preventive strategies to reduce tobacco consumption. Preventive strategies especially focused towards children and adolescents need to be initiated on emergent basis. This is more important for the developing countries like India, which have become the main targets of advertisement and promotional propaganda of various multinational tobacco companies [Patel, DR; 1999].

Preventive approaches include spreading awareness about the actual hazards of tobacco in the community especially among the vulnerable children and adolescents, curbs on advertisement and promotional campaigns, early identification of the users and providing treatment [Kumar, S; 2000].

### **Early Education**

The benefits of early educational programs have been well reported for school children [Swadi, H. & Zeitlin, H; 1987]. Such programs should not only focus on the harms caused by cigarette smoking but also on those caused by other forms of tobacco use like smoking hooka and beedis, and by the smokeless forms like gutka. In fact, a majority of Indian people are not aware of the health consequences caused by smokeless tobacco products. Added to this, a wrong belief is being spread throughout the country that beedis are less harmful than cigarettes. Some indirect promotional efforts even spread an untruth about some beneficial effects of beedis such as being abdominal gas and constipation reliever! Thus, in a country like India, widespread community awareness program on the hazards of local and cheaper tobacco products like beedis and gutka are more essential than few school based programs. A couple of programs are already in progress for the street children in India. A training module has been prepared for the non-governmental organizations (NGOs), for offering needbased intervention to the street children. The work was conducted under the auspices of WHO, UNICEF, and the Ministry of Health & Family Welfare of the Indian Government. Drug abuse and high-risk behavior have also been studied among the street children. UNICEF is conducting training courses for NGOs and street educators who are expected to find and help the street children abusing drugs [Ray, R; 2000].

### **Curb on media advertisements and tobacco promotion**

A very important step in primary prevention is the revamp of the existing tobacco policies of the government. The Government of India has recently taken some important legal measures, but there are still many problems in the enforcement of tobacco related law. Restrictions have been imposed on sales and on tobacco use in public places like railway stations, airports, hospitals and governmental offices. However, the more important aspect would be the strict observation and control of such restrictions. The sales of all tobacco products including the MSTP and their easy access strongly need to be banned for children and adolescents. An initiative in this regard has been taken by stopping tobacco sale in vicinity of schools. Countries like UK have imposed age restrictions in purchase of tobacco products. Stopping sales of tobacco to children is an important step towards reducing the number of tobacco users among the new generation [Gupta, PC. Gutka; 1999].

### **Overall community development**

The limitations of the long-term success of the schoolbased interventions [Nutbeam, D. et al; 1993] have led researches to advocate approaches involving the creation of a wide social environment supportive of nonsmoking. This is extremely relevant to Indian societies, where economic disparity, unemployment, illiteracy and homelessness have been associated with all kinds of addictive behavior including the tobacco use by children.

### **Legal Aspects**

Tobacco industry has been facing strong opposition from the legal and public forums similar to those in the Western countries like USA. As the dangers of smoking began getting more and more identified, legal enforcements for prohibition of tobacco advertisements and declaration of nonsmoking zones have become a worldwide phenomenon, especially in the last 2-3 decades. India has recently passed the Tobacco Products Bill 2001 [Mudur, G; 2001], which prohibits advertisement of all tobacco products, smoking at public places and selling tobacco to persons under 18 years of age. It also directs the manufacturers of tobacco products to indicate the nicotine and tar contents and warnings of adverse health effects of tobacco products on packages in both English and regional languages. In addition, the bill places a total ban on sponsorship of any sport or cultural events by tobacco companies. During the last 5 years, the

State Governments have also passed relevant orders for smoking ban in public places. One such order prohibits the sale of tobacco products within 100 m of schools [Kumar, S; 2000]. The effectiveness of many of these steps is now well documented. Long term studies have shown that a ban on advertising tobacco products is effective in reducing their consumption [Bjartveit, K. Lund, KE; 1998]. It is also important that an addictive product associated with serious diseases and death, must not be allowed to be presented to public through sexy, glamorous and macho images [Rode, P, Oswald, J; 2001]. Enforcements of laws have often been a problem in India. For example, although nonsmoking zones exist at important public places, especially in the large cities, there is an utter disregard for them. Nobody minds smoking by others, particularly in villages or small cities. There is a need to initiate massive

## CONCLUSION

Humans have used tobacco in many forms for several centuries. Its use often starts early in life. In recent years, there has been a rising trend in tobacco use, more in smokeless forms in India. There are no nationwide data available in India on the exact extent of the tobacco use among adolescents, although a number of surveys have been reported from different parts of the country. These show a general tendency towards an increase in tobacco use by the youth for the past few decades, with an emphasis on the use of smokeless tobacco. This is a matter of great public health concern. Psychosocial factors have an important role to play in initiation of this habit. It has been observed that a large number of adolescents pick up this habit from their family members or the peers. Advertisements of tobacco products and promotional campaigns by the manufacturers also play an important role in initiation of the habit by adolescents. This has attracted the attention of health professionals, media and law enforcement agencies. The local governments are also taking steps in putting curbs over the sales of tobacco products to children, and in regulating tobacco advertisements.

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