EXPLORING TOBECCO HABITS IN SCHOOL GOING ADOLESCENTS BOYS IN SANGARIA HANUMANGARH DISTRICT OF RAJASTHAN

ABSTRACT

The present study was conducted to examine the prevalence, patterns, and influencing factors of tobacco consumption among adolescent school-going boys aged 12 to 18 years in Sangaria city, Hanumangarh district, Rajasthan. A sample of 100 respondents was selected using a purposive sampling method from various schools across the city. Data were collected through structured questionnaires and personal interviews. The findings revealed that a significant proportion of adolescents were engaged in tobacco consumption, with popular products including pan masala, gutkha, bidi, and cigarettes. Peer influence, family habits, curiosity, and media exposure were identified as major contributing factors for initiation. The study also highlighted that peer influence (44%) and personal interest (33%) were the leading causes of tobacco use, while a substantial number (28%) reported being influenced by family members such as fathers or brothers. Despite the high usage rates, 77% of the respondents supported the idea of banning tobacco products, and 89% stated they would not recommend tobacco use to others, indicating a level of awareness about the health hazards associated with tobacco. The study emphasizes the urgent need for targeted health education programs and anti-tobacco campaigns in schools and communities to reduce tobacco use among adolescents.

Keywords: tobacco consumption, health hazards, chronic obstructive pulmonary disease, pulmonary tuberculosis

INTRODUCTION

If the world today has to face a major challenge after population and poverty, it is tobacco consumption. In this world, 125 crores of people are consuming tobacco and out of these 40% people are from developing countries. The use of tobacco takes place in many forms, in a variety of social and cultural contexts. Tobacco is smoked or chewed in a variety of ways (Brannon, 2000). Globally, tobacco use is the single most preventable cause of morbidity and mortality. The world bank predicts that 450 million tobacco deaths will occur over the next 50 years unless dramatic changes occur in current use. In India, about 194 million people (150 million men and 44 million women) consume tobacco in some forms and 700,000 people die every year due to smoking. In order to reduce tobacco-related deaths and disease, current users must quit tobacco. Although this is a critical step in tobacco control, special efforts will be

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required to help current smokers to quit smoking. One recent study in India reported that 83 percent of tobacco users wanted to quit and 51 percent had tried unsuccessfully to do so. (Thankappan et al. 2009). Tobacco use is one of the major preventable causes of death and disability worldwide. According to WHO estimates 4.9 million deaths annually are attributed to tobacco. Currently, about one fifth of the total worldwide deaths that are attributed to tobacco occur in India only. More than 8,00,000 people die and 12 million people become ill as a result of tobacco use each year. Every day, about 80,000 to 1,00,000 young people start smoking. Most of them in the developing countries. With the current smoking patterns about 500 million people alive today will eventually be killed by the tobacco use. More than half of these future deaths will occur among today’s children and teenagers. (MHFW, 2011). Traditionally, there is a practice of using various forms of tobacco among people belonging to various age groups in Rajasthan (2009, MHFW).

Presently tobacco contributes to 4 million deaths per year globally. According to the World Health Organization (WHO, 1998), tobacco kills more people annually than AIDS, alcohol, other addictions and accidents put together. This figure is expected to rise to 10 million tobacco attributable deaths per year by 2025. A recent study by WHO has cautioned that unless smoking patterns change, one billion people are expected to die from smoking habit in the 21st century

which is 10 times more than those killed by tobacco throughout the 20th century. (Reddy and

Arora, 2001). Tobacco use is harmful and addictive. All forms of tobacco cause fatal and

disabling health problem throughout life. Scientific evidence has linked tobacco use with the development of more than 25 diseases. Smoking tobacco is the major cause of lung cancer, chronic obstructive pulmonary disease (COPD), peripheral vascular disease, and various throat and mouth cancers. Tobacco smoking is a known cause of stroke, coronary heart disease, bladder cancer, aortic aneurysm, perinatal mortality, cervical cancer and leukemia.

According to Unani experts, tobacco consumption adversely affects the heart and brain; it can especially affect people having excitable temperaments, causing diseases such as headache, vertigo, loss of memory, insomnia, loss of vision, cough, pulmonary tuberculosis, palpitation, impotence, constipation etc. (Ansari ZA, Bano SN, Zulkifle M. 2010).

**Justification of the Study**

* Tobacco use is generally increasing amongst youth, school dropouts. These groups are the most difficult to reach through standard intervention measures.
* Use of smokeless tobacco in a variety of forms is high even among youth in all parts of India. Starting with insuring of smaller quantities pan by adolescent boys in Mansa leads to addiction to tobacco products amongst them.
* There is a paucity of data regarding tobacco consumption in adolescent boys.
* There is also a need of documentation of tobacco consumption in adolescent boys. Very few studies have been carried on in Rajasthan. The present study was planned keeping in mind all the above mentioned factors.

**METHODOLOGY**

The present study undertakes prevalence of tobacco use among the school going children of Sangaria City between the age group 12–18 years.

The current chapter deals with the methodological detail of the present study. These are organized under the following heads.

1. Locale of the study

2. Sampling procedure and sampling frame

3. Description of the tool used

4. Procedure of data collection

5. Analysis of the data

1. **Locale of the study**

The study was conducted at school going children of Sangaria city.

2. **Sample frame and procedure**

Sangaria city

↓

Bal Navjeevan Senior Sec. School

↓

Children in the age group 12–18 years

**Sample Size**

The sample size was 100 students (boys).

**Tool and Techniques:-**

A self-constructed schedule was used to collect the data. It was filled by the students.

3. **Description of the tool used**

The tool used for data collection was a semi-structured questionnaire. It was constructed to obtain the data from the students (12–18) from Sangaria city. It has three main sections:

Section I: This section was structured for delineating information of the respondents like name, age, class.

Section II: This section consisted of questions related to tobacco consumption in terms of its health and consequences like why they consume tobacco, products, addiction properties of tobacco, about disease, opinion.

Section III: This section deals with the practices regarding tobacco consumption. The questions included were form of tobacco consumed, if it was in practice, frequency of money spent, time and condition which lead to consumption, consumption by family members, initiation for consumption, experiences of tobacco consumption and changes occurred due to its consumption.

4. **Procedure of the data collection**

The task of data collection was accomplished through direct contact with the students. The questionnaire method was adopted because all of the subjects were educated and therefore capable of filling the questionnaire on their own. While filling the questionnaire the respondents, care was taken to establish rapport with them before obtaining the factual information.

5. **Analysis of the data**

After collection of data from the respondents the schedule were arranged. A plan for recording the data was made. The data was transferred to tally sheets manually, from the questionnaire. Tables were prepared from the data. The method of analysis comprised of frequency distribution and percentage interpreting the data observation were also incorporated about banning of the tobacco products and government efforts to be done.

Mean – The following formula was used to calculate mean:

Mean { fx/N

Where

= Total score of frequencies

n = No. of subjects

Percentage: to assess percentage following formula was used

P = X/Y

Where

X = Observed value

Y = Total value

P = Percentage

**RESULT AND DISCUSSION**

The finding of the study has been presented in three sections. The first section gives a profile of the selected sample. The second section presents the knowledge regarding tobacco use, its health hazards and general awareness. The third section gives information about practices being followed by the respondents in respect to tobacco consumption.

1. Section 1: General Profile of the Respondents, Name, Age, Class, Type of family.

2. Section 2: Knowledge regarding tobacco

i. Knowledge about tobacco

ii. Reasons for consuming tobacco product

iii.Tobacco as a health hazard

vi. Opinion about banning of tobacco products

3. Section 3: Practices being followed regarding consumption of tobacco product

(i) Tobacco product being consumed, frequency of consumption and money spent

(ii) Habit regarding tobacco consumption

(iii) Initiation of tobacco consumption

(iv) Feeling after tobacco consumption

Table1:- General Profile

|  |  |  |
| --- | --- | --- |
| Variables | No. of respondents | Percentage |
| Age | 13–15 yrs = 46 | 46% |
| 16–18 yrs = 54 | 54% |
| Class  11th class  12th class | 46%  54% | 46%  54% |

The present study carried out on 100 adolescent school going children in Sangaria Hanumangarh city. The distribution of selected respondents according to various aspects are given in table.

Age: Maximum (100) adolescent school going children in Sangaria. 46% were 13–15 yrs and 54% were 16–19 years in age.

Class: Maximum (100) adolescent school going children in Sangariya. 46% were from 11th standard and 54% were from 12th standard.

Table2:- Knowledge about Tobacco

|  |  |  |
| --- | --- | --- |
| Knowledge about Tobacco | Responses | |
| Yes | No |
| Any Knowledge about Tobacco | 56 (56%) | 44 (44%) |
| Any Knowledge about Passive Smoking | 2 (2%) | 98 (98%) |
| Bidi Gutkha etc. consists Tobacco | 64 (64%) | 36 (36%) |

The knowledge about tobacco is presented in table number. Nearly half of the respondents were able to tell something about tobacco. Most of the respondents (98%) did not have any idea of passive smoking or how they can be affected by passive smoking. But as stated that children are at particular risk from smoking. Adverse health effects include pneumonia and bronchitis, coughing and wheezing, worsening of asthma and possibly neuro behavioral impairment and cardiovascular diseases in adulthood. 64 percent of subjects knew that bidi, cigarette, gutkha etc. contained tobacco. 36% did not knew tobacco consists whether tobacco is found in bidi cigarettes and gutkha etc. or not.

**Tobacco as a Health Hazard**

Table No.3 Shows Knowledge about Tobacco’s Health Hazards. 31% of the respondents did not thought that tobacco may be hazardous to health. 69% who knew it is hazardous. All of the respondent had heard about cancer. Out of these 60% knew it was caused by tobacco consumption.

Table3:- **Tobacco as a Health Hazard**

|  |  |  |
| --- | --- | --- |
| **Tobacco as a Health Hazard** | Responses | |
| Yes | No |
| Tobacco as a Health Hazard to health | 69 (69%) | 31 (31%) |
| Have you heard about cancer | 100 (100%) | -- |
| Cancer: May be caused due to tobacco consumption | 60 (60%) | 40 (40%) |
| Have seen any cancer patient due to tobacco consumption | 28 (28%) | 72 (72%) |
| Cancer may occur to anyone who is consuming tobacco | 24 (24%) | 76 (76%) |

Then two-third of the boys did not think that cancer may occur to anyone who is consuming tobacco. But most of the boys (72%) had not seen any cancer patient. More than 60% of the boys knew it was caused by tobacco consumption.

**Consumption of Tobacco and Other Products According to Age (13–18 Years)**

Table4:- Consumption of Tobacco and Other Products According to Age (13–18 Years)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Forms of Tobacco | 13–15 yrs |  | 16–18 yrs |  | Total |  |
|  | No. of respondents = 46 | % | No. of respondents = 54 | % | No. of Respondents = 100 | % |
| Pan Masala | 39 | 84.78% | 51 | 94.44% | 90 | 90% |
| Hukka | 14 | 30.43% | 28 | 51.85% | 42 | 42% |
| Gutkha | 18 | 39.13% | 11 | 20.37% | 29 | 29% |
| Bidi | 15 | 32.60% | 10 | 18.51% | 25 | 25% |
| Cigarette | 8 | 17.39% | 21 | 38.88% | 29 | 29% |
| Zarda | 26 | 56.52% | 10 | 18.51% | 36 | 36% |

Table No.4 Presents the type of tobacco products by the respondents were consumed. All of the respondents who were tobacco consumers were regular consumers of tobacco products like Gutkha, bidi, cigarette, zarda, pan masala, hukka etc. According to age, 13–18 yrs age respondents were (90%) consumed pan masala, (42%) were consumed hukka (36%) consumed zarda, (29%) consumed gutkha, (29%) consumed cigarette and (25%) bidi consumed.

**Frequency of tobacco consumption and money spent per day**

Table5:- Frequency of tobacco consumption and money spent per day

|  |  |  |  |
| --- | --- | --- | --- |
| Tobacco Consumption | | Frequency per day | Percentage |
| Frequency of tobacco consumption | 1–5 times | 42 | 42% |
| 5–10 times | 58 | 58% |
| >10 times | - | - |
| Money spent per day on tobacco products | 5–10 Rs. | 20 | 20% |
| 10–15 Rs. | 23 | 23% |
| 15–20 Rs. | 33 | 33% |

Table No.5 presents the type of tobacco consumption per day. 58% of the respondents consumed tobacco product 5–10 times per day and 42% respondents consumed tobacco product 1–5 times per day. Maximum percent (33%) were spending 15–20 Rs. per day for buying tobacco products followed by 24%, 20 Rs., and 20% spent 5–10 Rs. per day.

**Habit regarding tobacco consumption**

Table6:- Habit regarding tobacco consumption (N=100)

|  |  |  |  |
| --- | --- | --- | --- |
| Habits | Frequency | | Percentage |
| Time preferred of tobacco consumption | No specific time | 74 | 74% |
| Morning | 8 | 8% |
| Before meals | 16 | 16% |
| At other times | – | – |
| Conditions in which tobacco was consumed increases | In time of mental stress | 44 | 44% |
| In emotional instability | 2 | 2% |
| No special condition | 44 | 44% |

Habit regarding tobacco consumption is shown in the table. The table reveals that 74% had no specific time to consume tobacco, 16% consumed it before meals, and 8% consumed mostly in the morning. There were 0% responses for other times.

A maximum of 44% of the respondents reported consuming tobacco products during mental stress, while another 44% reported no special condition for tobacco use. Only 2% consumed it during times of emotional instability.

**Reasons for Consuming Tobacco Products**

Table7:- Reasons for Consuming Tobacco Products

|  |  |  |
| --- | --- | --- |
| Reasons for consuming tobacco product | No. of Respondent | Percentage |
| Increases physical capacity | 25 | 25% |
| Relieves tension | 14 | 14% |
| Facilitates digestion | 2 | 2% |
| Addiction | 44 | 44% |

Table No.7 reveals the reasons for consuming tobacco products.

44% of the respondents were of the opinion that they consumed tobacco mainly due to addiction

25% believed it increases physical capacity

14% thought it helps relieve tension and

Only 2% felt that it facilitates digestion.

**Awareness Regarding Tobacco Use as a Health Hazard**

Table8:- Awareness Regarding Tobacco Use as a Health Hazard (N=100)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| tobacco health hazard | | No. of Respondents | | | |
| Yes | % | No | % |
| Tobacco may cause | T.B. | 45 | 45% | 54 | 54% |
| Stone in kidney | 15 | 15% | 85 | 85% |
| Stomachache | 69 | 69% | 31 | 31% |
| Cancer | 60 | 60% | 40 | 40% |

Table No.8 shows knowledge about tobacco health hazard. It was very disheartening to know that 54% of the respondents did not think that tobacco may be hazardous to health. The respondents who did think that tobacco may be hazardous to health thought that:

It may lead to cancer (60%)

May cause stomachache (69%)

May cause stone in kidney (15%)

May cause T.B. (45%)

This result can be supported by the study done (Reddy and Gupta, 2004). These 3.84 million tobacco deaths of men include:

0.97 million from cardiovascular disease (1.69 million deaths)

0.85 million from long cancer

Unnecessary deaths due to tobacco occur in middle age (35–69 years), robbing around as much as 22 years of the normal life expectancy.

**Initiation for Tobacco Consumption**

Table9:- **Initiation for Tobacco Consumption (**N = 100)

|  |  |  |  |
| --- | --- | --- | --- |
| Initiation | | Frequency | Percentage |
| Tobacco consumption in the family | Father | 28 | 28% |
| Mother | 11 | 11% |
| Brother | 24 | 24% |
| No one | 18 | 18% |
| Relative | 19 | 19% |
| Initiation of consumption tobacco | In childhood | 4 | 4% |
| Peer influence | 44 | 44% |
| Out of interest | 33 | 33% |
| Out of fashion | 19 | 19% |

Table no.9 reveals the reasons for initiation of tobacco consumption.

Most of the respondents (28%) had seen their father (24%) their brother, (11%) mother, and (19%) relatives consuming—like cousins, uncle etc.—tobacco products, which promoted them also to consume tobacco products.

44% of respondents were initiated by peer influence,

33% started due to their own interest,

19% were initiated because of fashion,

4% were initiated in childhood to consume tobacco products.

**Opinion about Banning of Tobacco Products**

Table10:- Opinion about Banning of Tobacco Products(N = 100)

|  |  |  |
| --- | --- | --- |
| Opinion about the ban | Responses | |
|  | Yes | No |
| Tobacco products should be banned | 77 (77%) | 23 (23%) |

:

Table no.10 reports the opinion of the subject about banning of the tobacco products. 23 percent opined that tobacco products should not be banned. The remaining 77 percent were in favor of the ban, yet more of them were also consuming tobacco products. It may be because they were facing an interview or they may be aware that something is objectionable in tobacco consumption.

Out of those who were in favor of the ban, they thought that tobacco is not a good thing. Many believed this because they wanted the coming generation to be free from this abuse. It indicates that they had learned chewing or smoking tobacco from their family members, especially from fathers. So if they continue to consume tobacco, their offspring will also become tobacco consumers.

This result can be supported by the study done by (Sinha 2008) "The cigarettes and other tobacco products (Prohibition of Advertisement) and regulation of trade and commerce, supply and distribution) Act 2003. No. 34 of 2003" and the Bihar State Prevention of Food Adulteration Act, 1954 (37 of 1954).

The Amendment 2003 restricts tobacco promotion, sale of tobacco products to minors, and protects non-smokers in public places.

**Opinion about Tobacco Consumption by Youngsters and Friends**

Table11:- Opinion about Tobacco Consumption by Youngsters and Friends (N = 100)

|  |  |  |
| --- | --- | --- |
| Would you suggest your youngsters to consume tobacco products | No. of respondents | |
| Yes | No |
|  | 11 (11%) | 89 (89%) |

Table no.11 reveals the opinion of the respondents about consumption by their youngsters and friends. 89% did not want to suggest, and 11% were respondents who suggested their friends and youngsters to consume tobacco products. They may have this opinion because they themselves might have been initiated into tobacco consumption by their friends or elders.

The following conclusions can be drawn from the undertaken study.

1. The habit of tobacco consumption started during the first 2–6 months of joining as a result of peer influence.

2. There was lack of awareness regarding health hazards of tobacco. There were also some misconceptions prevailing, like it gave energy, facilitated digestion, and brought confidence, etc.

3. Most of the subjects consumed it to relieve tension, burden, or because of habit.

4. The addiction was so deep and strong that most of the subjects did not want tobacco to be banned or to compromise regarding tobacco consumption, even in case of having no money.

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**REFERENCES**

Abirami, M. S., Vennila, B., Chilukalapalli, E. L., & Kuriyedath, R. (2021). RETRACTED ARTICLE: A classification model to predict onset of smoking and drinking habits based on socio-economic and sociocultural factors. Journal of Ambient Intelligence and Humanized Computing, 12(3), 4171-4179.

Annual Report 2007 – 2008. https://www.mea.gov.in/uploads/publicationdocs/169\_annual-report-2007-2008.pdf

Ansari, Z., Bano, S., & Zulkifle, M. (2010). Prevalence of tobacco use among power loom workers. Indian Journal of Community Medicine, 35, 34–39.

Brannon, L., & Feist, J. (2010). Health psychology: An introduction to behavior and health (7th ed.). Belmont, CA: Cengage

N. Sinha Dhirendra, Gupta C. Prakash & Pednekar Mangesh (2003). Tobacco use among students in Bihar (India). [Indian Journal of Public Health](https://www.researchgate.net/journal/Indian-Journal-of-Public-Health-0019-557X?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIn19) 48(3):111-7

Reddy, K. & Arora, M. (2009). Pictorial health warnings are a must for effective tobacco control. [The Indian Journal of Medical Research](https://www.researchgate.net/journal/The-Indian-Journal-of-Medical-Research-0971-5916?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIn19) 129(5):468-71

Reddy, K., & Gupta, P. (2004). Tobacco use in India: Tobacco control in India (Report). Ministry of Health and Family Welfare, Government of India.

Singh Gupteshwar, Sinha D.N. , Sarma P.S. and Thankappan K.R. (2005). Prevalence and Correlates of Tobacco use Among 10-12 Year Old School Students in Patna District, Bihar, India. Indian Pediatrics 42(8):805-10

Thankappan, K., Kumar, R., & Nichter, M. (2009). Doctors’ behaviours and skills for tobacco cessation in Kerta. Indian Journal of Medical Research, 29, 249–255.

Ministry of Health and Family Welfare. (2009).

Ministry of Health and Family Welfare. (2010).