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Tobacco Use Among Government and Public School Students in the Sangam Vihar Area of South Delhi

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Abstract

The most fundamental right inherent to all human beings, as recognized in international law, is the right to health. Men and women worldwide prioritize good health as their top aspiration when asked to rank their desires. Currently, one of the most significant global challenges to achieving this desire is the widespread epidemic of tobacco use. This exceptional epidemic is notable not just for its magnitude but also for its characteristics. In certain aspects, it presents challenges that are even more formidable than those posed by conventional public health issues Unlike concerns related to hygiene or insufficient nutrition, this epidemic revolves around a potent addiction and deeply entrenched beliefs and values. The rising issue of tobacco use among adolescents is particularly significant in developing nations such as India. This epidemiological study aimed to determine the frequency of tobacco usage among students in schools. This is a cross-sectional study conducted in school using a self-administered questionnaire developed by the WHO for Global Youth Tobacco Survey (GYTS). This study was carried out on a total of 916 (63.8% boys and 36.2% girls) students in two schools (461 students from Government Schools and 455 students from public schools). 13.3% of students were tobacco users (11.9% in government and 14.7% in public school); of them, 50.9% of students started their first tobacco use before 12 or 13 yrs. age (2.5 % at the age of 7 years or below). 4.7% of students (3.3% in government schools and 6.2% in public schools) were current tobacco users (consumed tobacco in the last 30 days of the survey); out of these, 67.4% of students were chewing tobacco (57.7% in government school and 60.7% in public school). The majority (88.4%) of students want to quit smoking/chewing tobacco. More than 50% (62.8%) of students of current tobacco users purchase their tobacco products from shops/stores and 67.4% reported that they had not been refused purchase because of their age. The prevalence of tobacco use in this study and the majority of students wanting to quit this habit indicate the need for tobacco control and the secession program should be strictly conducted in the community. The discovery of unrestricted access and availability of tobacco products to students highlights the need to reassess the enforcement of laws regarding the sale of tobacco products to minors.

Keywords: Ever tobacco use, current tobacco use, Global Youth Tobacco Survey, tobacco control

INTRODUCTION

Health is the most fundamental right for human beings, and good health is the number one desire. One of the most significant challenges worldwide to achieving that aspiration is the widespread use of tobacco. Unlike sanitation or malnutrition, the major drawback of this epidemic is the production of a powerful addiction.

Adolescents are the most susceptible demographic to start using tobacco, and this trend is currently reaching pandemic proportions. Tobacco places an enormous toll on illness and mortality in society, resulting in severe health, social, economic, and environmental consequences. The prevalence of tobacco use among adolescents and young people

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has escalated to pandemic levels. According to the World Bank, approximately 80,000–100,000 adolescents and youth worldwide smoke each day [1].

Approximately half of these individuals are likely to persist smoking into adulthood, and half of adult smokers are projected to experience premature death as a result of smoking-related illnesses. [2]. Smoking trends continue to be a threat, while in India today, the increasing use of smokeless tobacco is observable among youth [3–6]. If smoking patterns persist, tobacco is projected to cause premature deaths of approximately 250 million youth [2]. In industrialized countries, smoking has been identified as the most important preventable cause of disease and premature death.

Cigarettes lead to the premature death of half of all lifelong smokers, and the harmful effects of tobacco surpass those of AIDS, legal drugs, illegal drugs, road accidents, murder, and suicide [1]. India ranks as the third-largest producer and consumer of tobacco globally, with a longstanding tradition of tobacco usage.

In India, tobacco is utilized in diverse ways, and its consumption among adolescents has regrettably gained significant recognition. A significant proportion of adult tobacco addicts begin during adolescence [2, 3]. The prevalence of tobacco use in India is steadily increasing, albeit with notable shifts in the manner in which it is consumed. Adolescents become victims and have less information about the addictive nature of tobacco, and the health impact, influenced by peers, advertising, and perceived social acceptability. Personal factors such as self-esteem and the self-image of adolescents are also related to this phenomenon [7].

Smoking is the primary contributor to cancer, particularly affecting the lungs, larynx, oral cavity, pharynx, and esophagus, in addition to cardiovascular and chronic obstructive pulmonary diseases [8].

Expectant mothers who smoke are at a higher risk of delivering babies with low birth weight or experiencing stillbirth. Smokeless tobacco use during pregnancy also increases the likelihood of adverse outcomes [9]. The consumption of smokeless tobacco leads to oral and esophageal cancers (when combined with betel quid chewing) and increases the risk of cardiovascular diseases [8]. A large body of evidence exists regarding disease causation owing to tobacco smoke in the environment [10]. According to Unani physicians, tobacco consumption adversely affects the heart, brain, and people with hot temperaments, thus causing diseases such as headache, vertigo, loss of memory, insomnia, loss of vision, cough, pulmonary tuberculosis, palpitation, impotence, and constipation [11, 12].

MATERIAL AND METHODS

This cross-sectional study was conducted in two schools in the Sangam Vihar Area of South Delhi using a self-administered questionnaire developed by the WHO for Global Youth Tobacco Survey (GYTS). This study utilized a two-stage cluster sampling method to select schools that would be representative of the population. In the second stage of sampling, classes from 6th to 10th within the selected school were randomly selected. Permission from the school authority was obtained before the survey, and written consent was obtained from the parent/guardian/class teacher of students before participating in the survey.

RESULTS

This study was carried out on a total of 916 (Table 1) (63.8% boys and 36.2% girls) students in two schools (461 students from government schools and 455 students from public schools).

The mean age of students who participated in this study was 13 years (SD ± 1.5), 13.3% of students (11.9% in government and 14.7% in public school) were ever tobacco users; of them, 50.9% of students started their first tobacco use before 12 or 13 yrs. age (2.5% at the age of 7 or below).

Table 2 depicts tobacco use (smoking or chewing) over the past 30 days.

Table 1. Distribution of Government and Public school students according to ever use of tobacco.

Tobacco ever use	Government school			Public school			Government + Public no. (%)
	Boys no. (%)	*Girls no. (%)*	*Total No. (%)*	*Boys no. (%)*	*Girls no. (%)*	*Total no. (%)*	
Yes	44 (16.3)	11 (5.7)	55 (11.9)	61 (19.4)	6 (4.3)	67 (14.7)	122 (13.3)
No	225 (83.6)	181 (94.3)	406 (88.1)	254 (80.6)	134 (95.7)	388 (85.3)	794 (86.7)
Total	269 (100)	192 (100)	461 (100)	315 (100)	140 (100)	455 (100)	916 (100)

Table 2. Distribution of school students according to the form of tobacco use (smoking or chewing) in the past 30 days.

Tobacco form	Government school			Public school			Government school + Public school no. (%)
	Boys no. (%)	*Girls no. (%)*	*Total No. (%)*	*Boys No. (%)*	*Girls no. (%)*	*Total No. (%)*	
Chewing	8 (72.7)	4 (100)	12 (80)	15 (57.7)	2 (100)	17 (60.7)	29 (67.4)
Smoking	3 (27.3)	0 (0.0)	3 (20)	11 (42.3)	0 (0.0)	11 (39.3)	14 (32.6)
Total	11 (100)	4 (100)	15 (100)	26 (100)	2 (100)	28 (100)	43 (100)

It was found that 4.7% of students (3.3% in government schools and 6.2% in public schools) were current tobacco users (tobacco in the last 30 days of the survey); out of these, 67.4% of students were chewing tobacco (57.7% in government schools and 60.7% in public schools) (Table 3).

Table 3. Distribution of government and public school students according to current use of tobacco.

	Government school			Public school			Government
Tobacco	*Boys*	*Girls*	*Total*	*Boys*	*Girls*	*Total*	+
Current use	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	Public No. (%)
Yes	11 (4.1)	4 (2.1)	15 (3.3)	26 (8.3)	2 (1.4)	28 (6.2)	43 (4.7)
No	258 (95.9)	188 (97.9)	446 (96.7)	289 (91.7)	138 (98.6)	427 (93.8)	873 (95.3)
Total	269 (100)	192 (100)	461 (100)	315 (100)	140 (100)	455 (100)	916 (100)

Table 4. Source of tobacco product and place of its uses in past 30 days.

Source	Government school no. (%)	Public school no. (%)	Total no. (%)
Store or Shop	8 (53.3)	19 (67.8)	27 (62.8)
From someone else	2 (13.3)	5 (17.9)	7 (16.3)
Borrowed	1 (6.7)	0 (0.0)	1 (2.3)
Stole	2 (13.3)	0 (0.0)	2 (4.7)
From older person	0 (0.0)	0 (0.0)	0 (0.0)
Other ways	2 (13.3)	4 (14.3)	6 (13.9)
Total	15 (100)	28 (100)	43 (100)
Place			
At home	2 (3.6)	0 (0.0)	2 (1.6)
At inside school	0 (0.0)	4 (5.9)	4 (3.3)
At outside school	11 (20.0)	9 (13.4)	20 (16.4)
At a friend's house	5 (9.1)	4 (5.9)	9 (7.4)
At social events	2 (3.6)	4 (5.9)	6 (4.9)
In public places	16 (29.1)	24 (35.8)	40 (32.8)
Other	19 (34.5)	22 (32.8)	41 (33.6)
Total	55 (100)	67 (100)	122 (100)

More than 50% (62.8%) of students of current tobacco users reported that they purchased their tobacco products from the shop/store, and 67.4% reported that they had not been refused purchase because of their age. One-third of students consumed tobacco in public places. 7.6% of students reported that they had been offered tobacco products by tobacco company representatives (Table 4).

The majority (88.4%) of students wanted to quit smoking/chewing tobacco. 40.2% of students gave reasons for stopping smoking/chewing to improve health. 50.8% of students received help or advice to stop smoking/chewing (Table 5).

Table 5. Students' attitude towards quitting smoking/chewing tobacco in government and public schools.

Quit smoking/chewing	Government school no. (%)	Public school no. (%)	Total no. (%)
Want to quit	13 (86.7)	25 (89.3)	38 (88.4)
Do not want to quit	2 (13.3)	3 (10.7)	5 (11.6)
Total	15 (100)	28 (100)	43 (100)

DISCUSSION

The prevalence of ever tobacco use and initiation of their age is similar to that in other studies conducted by Arora and Reddy in school students in Delhi [13]. Another study conducted by Singh et al. on low-income group schoolchildren in the National Capital Territory of Delhi also supported this study [14].

The prevalence of current tobacco use and its form was found to be similar to that reported by Singh et al. and Arora and Reddy KS [13, 14]. The national finding reported by WHO statistics 2000-2008 was a 13.7% prevalence of current use of tobacco among adolescents of age group 13–15 yrs. [15].

The finding of purchasing tobacco products and their refusal is similar to the findings of Arora and Reddy in Delhi and Singh et al in Delhi [13, 14]. Sinha et al reported that over half of current users bought their tobacco products from stores and three-fourths of them, despite their age had no difficulty procuring these products [16].

Most students wanted to quit smoking and chew tobacco. A study conducted by Jindal et al. among school-going youth in North Indian States reported similar results [17].

CONCLUSION

The prevalence of tobacco use in this study indicates the need for school administration to strictly consider the current school regulations on smoking/chewing among students and include tobacco-related information in the school curriculum. The majority of students wanted to quit tobacco use, so indicated counseling of tobacco users in schools, and persuaded them to quit this habit. The discovery of unrestricted access and availability of tobacco products to individuals under the age of 18 years is concerning. Therefore, it is necessary to review the state of law enforcement involving the sale of tobacco products to minors, smoking in public places, and educational institutions.

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