# Smoking Prevention Programs Based on Schools Health Profile in the Viewpoint of School Administrators and Health Educators of Tabriz

**Rahim Khodayari-Zarnaq [1], Hasan Jafari [2], Keyhan Sajadi [3], Habibeh Mir [4], Habib Jalilian [5*]**

[1] Tabriz Health Services Management Research Center, Iranian Center of Excellence in Health Management, School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran

[2] Department of Health Care Management, School of Public Health ,Shahid Sadoughi University of Medical Sciences, Yazd, Iran

[3] School of Management and Medical Informatics, Shiraz University of Medical Sciences, Shiraz, Iran

[4] Student research committee, Tabriz University of Medical Sciences, Tabriz, Iran

[5] Iranian Center of Excellence in Health Management, School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran

| A R T I C L E I N F O | A B S T R A C T |
|---|---|

**Background:** Smoking is a global issue, Iran as one of the youngest contemporary societies, is involved in this dilemma. Therefore, this study was conducted with the aim of studying the implementation of programs and policies on preventing and controlling smoking in schools in Tabriz in 2017 using school health profiles from the viewpoint of school administrators and health educators.

**Methods**: This is a cross-sectional study. The statistical population included all school administrators and health educators in Tabriz in 2017. In the first stage, stratified proportional sampling and in the second stage systematic randomized sampling was applied. The data collection tool was schools health profiles. Relevant questionnaires were filled out by school administrators and health instructors. The data were analyzed by SPSS version 22 using descriptive statistics (frequency and percentage).

**Results**: 34.4% of schools had an approved policy on tobacco prohibition and 65.6% had no approved or coherent policies or programs on prohibition of smoking. The average and standard deviation of schools based on the use of teaching materials related to smoking prevention and control was 36.14 ± 40.57 out of 100. Most activities were related to the training of short-term and long-term health effects of smoking (50%) and the least activities were related to the provision of health services for preventing and quitting smoking (23.3%).

**Conclusion**: Most schools in Tabriz do not apply any smoking policy. Most schools also do nothing about preventing and controlling smoking outside the schools. Educational materials do not have necessary information in this regard to be taught by teachers. As a result, health managers and policy makers, in collaboration with school administrators and health educators, need to plan and take steps to develop appropriate programs, policies and materials for preventing and controlling smoking.

**Keyword**: Tobacco, Schools, School Health, Smoking

### Citation

**This paper should be cited as:** Khodayari Zarnaq R, Jafari H, Sajadi K, Mir H, Jalilian H. **Smoking Prevention Programs Based on Schools Health Profile in the Viewpoint of School Administrators and Health Educators of Tabriz.** Evidence Based Health Policy, Management & Economics. 2018; 2(1): 34-41.

## Introduction

Smoking epidemic is one of the most important health risk factors and one of the biggest public health threats in the world (1). The age at which smoking starts is decreasing both in developed and developing countries (2). Various studies have shown that the lower the age of smoking commencement, the more difficult it will be to quit in the future (3).

In 2015, there were more than 1.1 billion smokers in the world. Tobacco consumption in men is much higher than in women. Although the prevalence of tobacco consumption in the world and in many countries is decreasing, it is increasing in the Eastern Mediterranean and Africa (4).

Tobacco consumption kills half of its users. It kills more than 7 million people a year. More than 6 million of those deaths are the result of direct tobacco consumption while around 890 000 are the result of non-smokers being exposed to second-hand smoke. Nearly 80% of 1 billion smokers live in low- and middle-income countries (5).

It is estimated that the number of smokers will reach 1.6 billion in 2025 (2). In the world, four million and five hundred thousand people die because of cigarette smoking every year. The World Health Organization (WHO) estimates that by 2030 this figure will reach 20 million, mostly in developing countries (6). Over the past 30 years, public health professionals in developed countries have managed to decrease smokers, but the increasing incidence of smoking among adolescents and young people is one of the serious challenges of these societies in recent years (7).

The WHO estimates the prevalence of smoking is 20.4% for men, one percent for women and for the whole population 8.10% in Iran (8).

The Center for Disease Control and Prevention (CDC) states that the most risk factors for adolescents' health are abusive behaviors such as smoking, drinking alcohol and physical inactivity (9).

Smoking is one of the health problems that teenagers face across the world; drug addiction usually starts from adolescence (under age 20) and often begins with a low-impact substance of smoking, such as cigarette, and then continues to use drugs (10). Smoking is one of the most important preventable causes of death in the world. Many diseases are caused by smoking, such as pulmonary, cardiovascular and digestive disease as well as all types of cancers that have been proved to have a strong association with smoking (11).

Tobacco consumption begins primarily in adolescence. It is estimated that 4.7 million high school students are consumers of tobacco products in 2015 and are therefore exposed to complications of tobacco consumption (12). According to WHO reports, one third of people over the age of 15 are smokers, 75% of whom live in developing countries (13). In many western countries, the age of commencing smoking is 13-19 years and the age of experiencing cigarette is often 12-13 years old (14). One out of five smokers in the world is 13-15 years old teenagers (15). A study in 25 European countries showed that the prevalence of smoking in teenager boys is about 22% (16).

According to the reports, half of Iran populations in 2011 are adolescents aged 15-30 years, and the age of smoking has decreased from 18 years to 15 years (7). Typically, the first cigarette experience occurs between the age of 11 and 15 and leads to regular consumption over two to three years. The experience of smoking is due to social and environmental factors. Approximately 90 percent of adult smokers start smoking at age 18 (17). The lower the age of smoking commencement, the more difficult it will be to quit in the future (18). Mohammad Khani reported the prevalence of smoking among Iranian adolescents about 14.7% in 2011 (19). A study in Tabriz by Mohammad pour asl et al (2006) estimated the prevalence of tried cigarettes smokers and active smokers in adolescents in the second year of high school by 18% and 4%, respectively. Smoker friends were the most important cause of smoking in adolescents (20).

Appropriate smoking policies in schools may be a useful strategy for adolescents of all social and economic groups, because all of them spend a

great deal of time at school. There are many different policies and strategies for controlling smoking in schools. A review by Galanti et al. suggested that some tobacco control and prevention policies at school might be effective in preventing smoking among adolescents (21). For example, several studies showed that severe smoking ban in schools and around it may reduce the incidence of smoking. However, in some other studies, the relationship between smoking ban and smoking behavior was not clear (-22-23).

The School Health Profile Report, in 2014 in 48 states of America on school health policies and programs, showed that 41.6 % of schools used tobacco prevention policies and it had a positive impact (24).

School Health Profile is a survey system for the assessment of school health policies and activities. This profile monitors the following: content and educational needs of schools health, physical activities, school education policies in relation to the AIDS, smoking prevention, nutrition, asthma control activities, community and family participation in schools health programs, and School Health Council (25). Due to the high prevalence of smoking among adolescents in Iran, negative effects of smoking on people's health, as well as the economic and social effects of smoking, it is necessary to plan and take action to prevent tobacco consumption. This study was conducted to investigate the tobacco control and prevention policies and programs in schools in Tabriz in 2017.

## Materials & Methods

This study is part of a larger study titled "Studying Schools Health Policies and Programs in Tabriz in 2017". The statistical population includes all administrators and health educators of girls and boys, governmental and nongovernmental schools in the primary, secondary and high schools of Tabriz . Considering that the education system in Iran is concentrated and governmental and health programs and policies are relatively homogeneous, the sample size was 10% of the society. Sampling in the first stage was stratified proportional and in the second stage, systematic randomized method was used. Each of the five educational districts of Tabriz was considered as a class, and samples were selected from each district by systematic random sampling based on the number and level of schools (applying proportional sampling method to generalize the sample to the population). Schools list were provided from Education Department of Tabriz, a random number from 1 to 9 was selected. The number was the first selected sample. Then the total population was divided into the sample number. The result was 8.33. As a result, the distance between the samples was 8. By adding the number 8 to each sample, the next sample was obtained. A total of 96 schools were selected.

### Data collection tool

Data collection tool was part of the Schools Health Profile associated with administrators and health educators related to Center of Disease Control and Prevention (CDC) of the US, which was translated by the researchers. After final translation, its validity was confirmed by a team composed of three school administrators, three health instructors, two faculty members in the field of health education and researchers. Reliability was also determined by internal consistency with Cronbach's alpha coefficient of 0.97.

The part of the questionnaire related to tobacco control and prevention consists of five sections:

Section 1: The existence of an approved policy about smoking ban at school (one question)

Section 2: providing smoking cessation services at school for students, teachers and staff

Section 3: providing necessary actions for the participation of health professionals to provide smoking cessation services at school for each student group and staff (2 questions)

Section 4: using smoking prevention policies in schools and other school-related places (3 questions)

Section 5: using smoking prevention and control materials taught by teachers in the curriculum (18 questions).

Section 5 of the questioner was related to school health educators and other parts were completed by school administrators.

All sections of the questioner included yes or no questions, frequency and percentages were calculated for all the questions. In section 5, which had 18 questions, in addition to reporting the frequency and percentage, each yes answer had 1 score and for each no answer zero score was assigned. The minimum score was 0 and the maximum score was 18. The score was adjusted to zero to 100, besides average and standard deviation was reported.

### Procedure

After obtaining the necessary permissions, the list of schools in each district was provided for sampling. Finally, by referring to sample schools, questionnaires were completed by administrators and health educators. The variables were analyzed by SPSS version 22 and descriptive statistics (frequency and percentage).

Ethical considerations were Freely participation of school administrators and health educators in the study and Respecting the confidentiality of information. Ethical Code: IR.TBZMED.REC.2017.162

### Results

In this study, 96 schools were selected, 93 schools (participation rate almost 97%) were willing to cooperate in study. Out of these 93 schools, 32 schools (34.4%) had an approved policy on smoking ban, while 61 schools (65.6%) had no approved or coherent program or policy on this regard. The average and standard deviation of schools based on the use of teaching materials related to smoking prevention and control, taught by teachers during the required training period was $36.14 \pm 0.57$.

Table 1 shows that most schools (57%) apply smoking prevention policies in the school, but fewer schools (19.4%) apply these policies outside the school, including parks and playgrounds.

Table 2 shows that a small percentage of schools use health care professionals to provide smoking cessation services for staff (18.3%) and students (30.1%). A higher percentage of schools provide necessary services for smoking cessation for staff (84.9) and students (75.3).

According to Table 3, 50% of the schools in their educational materials included issues such as the identification of tobacco products and their harmful substances, identification the short-term and long-term effects of smoking on health and the effect of cigarette smoke on the surroundings and the benefits of a smoke-free environment. Fewer schools suggested following issues in their curriculum: finding reliable information and services about prevention and quitting smoking, how to treat smoking addiction, identifying and understanding of school policies and social rules related to the sale and consumption of tobacco products and supporting those who intend to quit smoking.

**Table 1.** Frequency of schools by use of smoking prevention policies at school and other school-related locations

| No. | Location | Yes | No |
|:---:|:---|:---:|:---:|
| 1 | At school | 53 (57) | 40 (43) |
| 2 | Out of the school, including parks and playgrounds | 18 (19.4) | 75 (80.6) |
| 3 | On school buses or vehicles for student transportation | 36 (38.7) | 57 (61.3) |

**Table 2.** Frequency of schools based on the use of health professionals to provide smoking cessation services at school and to provide smoking cessation services for each group of students and staff

| Activity | Target Group | Yes | No |
|:---|:---:|:---:|:---:|
| Using health care professionals to provide | Staff | 17 (18.3) | 76 (81.6) |
| smoking cessation services at school | Student | 28 (30.1) | 65 (69.8) |
| providing necessary services for smoking | Staff | 79 (84.9) | 14 (15.1) |
| cessation | Student | 70 (75.3) | 23 (24.7) |

**Table 3.** Frequency of schools based on the use of educational materials about smoking prevention and control taught by teachers during the required training period.

| No. | Educational Materials | Yes | No |
|---|---|---|---|
| 1 | Identifying tobacco products and their harmful substances | 15 (50) | 15 (50) |
| 2 | Identifying short-term and long-term health effects of tobacco consumption | 15 (50) | 15 (50) |
| 3 | Identifying psychological, economic and social consequences of smoking | 13 (43.3) | 17 (56.7) |
| 4 | Understanding the addictive nature of nicotine | 11 (36.7) | 19 (63.3) |
| 5 | The effects of nicotine on the brain of adolescents | 11 (36.7) | 19 (63.3) |
| 6 | Effects of smoking on exercise performance | 13 (43.3) | 17 (56.7) |
| 7 | The effect of cigarette smoke on surroundings and benefits of a smoke-free environment | 15 (50) | 15 (50) |
| 8 | Understanding the effect of social factors including the media, family, peers and culture on tobacco consumption | 12 (40) | 18 (60) |
| 9 | Identifying the reasons for students using or not using tobacco | 10 (33.3) | 20 (66.7) |
| 10 | Using interpersonal communication skills to avoid smoking (skills of saying no and not accepting, self-expression) | 13 (43.3) | 17 (56.7) |
| 11 | Assessment the number of peers using e tobacco | 8 (26.7) | 22 (73.3) |
| 12 | Using targeting and decision-making skills to avoid smoking | 12 (40) | 18 (60) |
| 13 | Finding reliable information and services about prevention and quitting smoking | 7 (23.3) | 23 (76.7) |
| 14 | Supporting those who intend to quit smoking | 8 (26.7) | 22 (73.3) |
| 15 | Identifying the harmful effects of smoking on fetal development | 9 (30) | 21 (70) |
| 16 | Identifying the connection between smoking with alcohol or other narcotic drugs | 10 (33.3) | 20 (66.7) |
| 17 | How to treat smoking addiction | 8 (26.7) | 22 (73.3) |
| 18 | Identifying and understanding of school policies and social rules related to the sale and consumption of tobacco products | 7 (23.3) | 23 (76.7) |

## Discussion

This study was conducted with the aim of studying the programs and activities for preventing and controlling smoking in schools in Tabriz. 65.6% of schools did not have any approved or coherent program or policy on the prohibition of smoking. 57% of schools do tobacco prevention activities in the school but outside of the school environment, including parks and playgrounds, on school buses or vehicles for schoolchildren transportation, respectively 80.6% and 61.3% of schools did not have any programs and activities.The average and standard deviation of schools based on the use of teaching materials related to smoking prevention and control was 36.14 ± 0.57 out of 100. Most activities were related to the training of short-term and long-term health effects of smoking (50%) and the least activities were related to the provision of health services for prevention and smoking cessation (23.3%).

Identification of tobacco products and their harmful substances, identification short-term and long-term effects of smoking on health and the effect of cigarette smoke on surroundings and the benefits of a smoke-free environment were included in most schools' curriculum, but fewer schools suggested following issues in their curriculum: finding reliable information and services about prevention and quitting smoking, how to treat smoking addiction, identifying and understanding of school policies and social rules related to the sale and consumption of tobacco products and supporting those who intend to quit smoking. This shows that most schools activities were related to the health education about harmful effects of smoking, and fewer schools had supportive programs for identifying smokers and providing smoking cessation services.

In Howard Edelman and Linda Taylor (26) study titled "Inclusion of School Health in the School Improvement Policy in 2014", results

showed that school health concerns have already dropped in school improvement policies. As a result, the dominant approaches of physical and mental health in schools were limited in nature and extent, and were implemented in a fragmented and inconsistent method. Improving the situation requires the integration of school health concerns into a coherent framework that covers the full range of factors that can interact with learning and teaching . Health policy in education system in Iran is concentrated, but based on facilities and socio-economic development in different regions; there may be differences in the rate of success in policy implementation.

In the Janco Saito study (27) entitle "Factors Influencing the Implementation of the National School Health Policy at the Lao PDR: A Multilevel Case Study," the results showed that the implementation of the National School Health (NSHP) at Lao PDR was influenced by nine related factors including; extensive planning, resource management, monitoring cycle, perceptual gap between national administrative staff and lower level offices, national force ownership, continuous training of teachers, school management skills, school health priority and decentralization. In addition, these nine factors can be used in current educational systems. As a result, for a sustainable National Health School Policy (NSHP) the following three factors should be integrated into the educational system: extensive planning with a long-term vision at the national level, human resource management, including well-organized training at each managerial level and the monitoring cycle to understand the actual state of schools . In this study, the use of appropriate human resources and frequent monitoring of the long term policy implementation was emphasized.

The Jabo Wazongga study (28) entitled "Comprehensive School Health Policy in Kenya: a Trial Program" noted that the participation of all stakeholders improves the sustainability of the program, but if there was not coordinated or monitored activities, some components of the school health program would not be sustainable.

The findings also revealed that the comprehensive school health program enhances the registration, participation and satisfaction of students, which are one the most important factors in the development of human resources. The study showed that although policy making might be collaborative, policy implementation requires the allocation of sufficient resources and coordination to fill the gaps during implementation of policies. The current study also emphasized that the monitoring was necessary for successful implementation of school health policies.

Findings from Huang's study (29) showed that the implementation of effective tobacco control policies should be considered in elementary schools, especially for boy students who are currently at the highest risk of smoking . The study emphasized that policymaking for the effective prevention and control of tobacco consumption in schools should be addressed from the very beginning of primary school.

In the study by Sarysto (30) entitled " Documentation of Smoking Control Policy and its Connection with Students Smoking and their Perception of the Prohibition of Smoking in Schools in Finland," school participation in the systematic documentation of tobacco control policy and strict monitoring decreased rates of smoking in the vicinity of the school during the day, but it had no significant relationship with the prevalence of smoking. The findings showed that a permanent documentation policy can be an effective means of reducing students smoking in schools . In the study, tobacco control policies in school and school-related places reduced smoking in schools, and it also was effective in preventing the onset of smoking in non-smokers.

The results of Vyas and Patel's study (31) titled "Health Education Effect on tobacco consumption in Ahmadabad Students" showed that health education was effective in improving students' awareness of the dangers of tobacco consumption, and this leads to a change in their attitude toward smoking due to the fact that many students are willing to stop smoking, but health education alone is not effective in

smoking control . This study referred to the impact of education on improving students' awareness of the dangers of tobacco consumption. In the present study, most of the activities of schools were related to health education and there was no action to help in smoking cessation. From the limitations of this study, it was that other tools and related profiles were not used in this study; it is suggested to combine these tools to achieve more comprehensive data in future studies.

## Conclusion

Most schools in Tabriz do not apply any smoking policy. Most schools also do nothing about preventing and controlling smoking outside the schools. Educational materials do not have necessary information in this regard to be taught by teachers. As a result, health managers and policy makers, in collaboration with school administrators and health educators, need to plan and take steps to develop appropriate programs, policies and materials for preventing and controlling smoking.

## Conflict of interest

There is no conflict of interest in this study.

## Authors' contribution

Study design: Khodayari Zarnagh R, Jalilian H, designed study; Jalilian H, Sajjadi K and Mir H gathered data; Jafari H, Khodayari Zarnagh R, Jalilian H analyzed data; Khodayari Zarnagh R, Sajjadi K, Jalilian H, Mir H, Jafari H wrote the manuscript. All the authors read and approved the final manuscript.

## References

1) Frieden TR, Blakeman DE. The dirty dozen: 12 myths that undermine tobacco control. American Journal of Public Health. 2005;95(9):1500-5.

2) Lim HK, Ghazali SM, Kee CC, Lim KK, Chan YY, Teh HC, et al. Epidemiology of smoking among Malaysian adult males: prevalence and associated factors. BMC Public Health. 2013; 13(1): 8.

3) Breslau N, Peterson EL. Smoking cessation in young adults: age at initiation of cigarette smoking and other suspected influences. American journal of public health. 1996; 86(2): 214-20.

4) Organization WH. Global Health Observatory (GHO) data Prevalence of tobacco smoking. 2017.

5) Organization WH. Media centre, Tobacco, Fact sheet, Updated May 2017

6) Pierce JP, Gilpin E. How long will today's new adolescent smoker be addicted to cigarettes? American Journal of Public Health. 1996; 86(2): 253-6.

7) Ballard-Barbash R, Friedenreich CM, Courneya KS, Siddiqi SM, McTiernan A, Alfano CM. Physical activity, biomarkers, and disease outcomes in cancer survivors: a systematic review. Journal of the National Cancer Institute. 2012;104(11):815-40.

8) Bidel Z, Nazarzadeh M, SaburMohamadi M. Smoking stages, prevalence of drug abuse and role of associated psychological and social factors: a study on male high school students in Ilam city. Journal of Kerman University of Medical Sciences. 2014;21(1). 81-93

9) Health UDo, Services H. Centers for Disease Control and Prevention Youth Risk Behavior Surveillance—United States, 2011. Surveillance Summaries. 2012;61(4). 1-162

10) Vafaee B, SHAHAM FJ. Effective factors in tendency towards cigarette smoking among Tabrizian high school students. J Babol Univ Med Sci . 2005;7(1 (25):37-41. (Persian).

11) Control CfD, Prevention. Tobacco use--United States, 1900-1999. MMWR Morbidity and mortality weekly report. 1999;48(43):986-988

12) Singh T. Tobacco use among middle and high school students—United States, 2011–2015. MMWR Morbidity and mortality weekly report. 2016;65.361-367

13) Lopez A, Collishaw N, Zolty B. Tobacco or health: a global status report. Geneva: World Health Organization. 1997.

14) Ua-Kit N, Phuphaibul R, Panitrat R, Loveland-Cherry CJ, Vorapongsathorn T. Cigarette smoking behavior among Thai adolescents in Metropolitan Bangkok. Thai Journal of Nursing Research. 2004;8(4):245-258

15) Fong GT, Cummings KM, Borland R, Hastings G, Hyland A, Giovino GA, et al. The conceptual framework of the International Tobacco Control (ITC) policy evaluation project. Tobacco control. 2006;15(3):iii3-iii11.

16) Baška T, Warren CW, Bašková M, Jones NR. Prevalence of youth cigarette smoking and selected social factors in 25 European countries: findings from the Global Youth Tobacco Survey. International Journal of Public Health. 2009;54(6):439.

17) Wang Y, Storr CL, Green KM, Zhu S, Stuart EA, Lynne-Landsman SD, et al. The effect of two elementary school-based prevention interventions on being offered tobacco and the transition to smoking. Drug and alcohol dependence. 2012;120(1):202-8.

18) Small SP, Brennan-Hunter AL, Best DG, Solberg SM. Struggling to understand: The experience of nonsmoking parents with adolescents who smoke. Qualitative health research. 2002;12(9):1202-19.

19) Mohammad Khani Sh. Prevalence of Cigarette Smoking, Alcohol Drinking a nd Illegal Drugs Use among Iranian Adolescents .Journal of Kerman University of Medical Sciences, 2012; 19(1): 32-48

20) Mohammadpoor Asl A, Fakhari A, Rostami F, Pourafkary N. Cigarette smoking among Iranian adolescents. Iranian Journal of Psychiatry and Behavioral Sciences. 2007;1(1):30-5.

21) Galanti MR, Coppo A, Jonsson E, Bremberg S, Faggiano F. Anti-tobacco policy in schools: upcoming preventive strategy or prevention myth? A review of 31 studies. Tobacco control. 2014; 23(4):295-301.

22) Kuipers MA. Smoking inequalities and tobacco control policies in Europe. 2016.

23) Kuipers MA, de Korte R, Soto VE, Richter M, Moor I, Rimpelä AH, et al. school smoking policies on adolescent smoking in Europe: A cross-national analysis. Epidemiology and Community Health. 2016;70(2):132-9.

24) Zewditu Demissie P, Nancy D. Brener P, Tim McManus M, Shari L. Shanklin M, Joseph Hawkins M, Laura Kann P, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Division of Adolescent and School Health. School Health Profiles 2012 State Results, Characteristics of Health Program Among Secondary Schools.

25) Prevention CfDCa. Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, School Health Profiles. 2016.

26) Adelman HS, Taylor L. Embedding school health into school improvement policy. International Journal of School Health. 2014;1(3). 1-8

27) Saito J, Keosada N, Tomokawa S, Akiyama T, Kaewviset S, Nonaka D, et al. Factors influencing the National School Health Policy implementation in Lao PDR: a multi-level case study. Health promotion international. 2014; 30(4): 843-54.

28) Wasonga J, Ojeny B, Oluoch G, Okech B. Kenya comprehensive school health policy: lessons from a pilot program. Journal of public health in Africa. 2014;5(1): 43-46.

29) Huang H-L, Chen F-L, Hsu C-C, Yen Y-Y, Chen T, Huang C-M, et al. A multilevel-based study of school policy for tobacco control in relation to cigarette smoking among children in elementary schools: gender differences. Health education research. 2010; 25(3): 451-63.

30) Saaristo V, Kulmala J, Raisamo S, Rimpelä A, Ståhl T. Tobacco use documenting policy and its association with pupils' smoking and their perception of the enforcement of school smoking bans in Finland. Leadership and Policy in Schools. 2014;13(2):209-22.

31) Vyas MJ, Patel AB. Impact of health education on tobacco use among school children of Ahmedabad. Int J Int Med Res. 2016; 3(2):26-9.