

ORIGINAL ARTICLE

# Factors that influence tobacco use in Georgian youth

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#### **OBJECTIVE**

Social environment, especially education, levels of awareness, friends and parental behavior greatly affects the use of tobacco among teenagers. The research aims to identify various factors that promote tobacco use in youth.

### **METHOD**

Qualitative and analytic cross-sectional descriptive research method was carried in among students from Tbilisi State University.

## **RESULTS**

Most respondents have started tobacco consumption at juvenile age. The community played a decisive role in starting tobacco use. Respondents started using tobacco with their classmates and close friends. The survey has shown that tobacco consumption was perceived as a positive social behavior among teenagers. Introducing the tobacco control laws that prohibit tobacco consumption and advertising in public places, particularly near schools are of paramount importance.

## CONCLUSION

Interventions that focus particularly on multiple risk factors may have an impact on the use of tobacco by adolescents. Where possible, such programs should be personalized to ensure that they address the specific set of risk factors that has a bearing on each individual's tobacco use.

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## INTRODUCTION

Tobacco consumption is one of the leading causes of death in the world.<sup>1-4</sup> According to World Health Organization (WHO), globally, 7 million people die each year as a result of tobacco consumption.<sup>5</sup> Nearly 80% of 1 billion smokers worldwide live in low- and middleincome countries, where the burden of tobacco related illness and death is heaviest.6-<sup>7</sup> The use of tobacco is particularly popular among men, adolescents, people having low social-economic status and education.8 Tobacco consumption by adolescents is a major concern. According to the World Bank, between 82,000 to 99,000 adolescents and young adults aged up to 18 years become regular consumers of tobacco.9

Tobacco consumption is the actual problem in Georgia as well.<sup>10-11</sup> Over 40% of the population, including children and pregnant women, are being exposed to tobacco smoke.<sup>12</sup> According to the research conducted in Georgia in 2016,13 40% of respondents aged from 14 to 25 have tasted tobacco. The age at which the respondents have started smoking varied from 12 to 24, and the average age was 15. According to the research conducted in 2016 by the National Center for Disease Control and Public Health,<sup>14</sup> tobacco consumption in Georgian students is 43%. Tobacco dependence is induced both by routinely exhibited behavior and social factors. 15-17

Public health measures are most effective for reducing tobacco consumption: public education, increasing taxes on cigarettes and restricting tobacco consumption in public areas. WHO has developed a Framework Convention on Tobacco Control (WHO FCTC) that entered into force on 27 February 2005. To date, 180 countries, including Georgia, have

ratified the WHO FCTC, and thus undertook a commitment to implement full-scale measures in the field of tobacco control in the country. On May 17, 2017, Georgia adopted the Law on Tobacco Control under which from May 1, 2018, the tobacco consumption was prohibited at closed public and work places, as well as in some open areas and public transport, in order to promote tobacco, use restrictions.<sup>21</sup>

The research aims to identify properties and factors that promote tobacco consumption among teenagers.

## **MATERIALS AND METHODS**

The present study combined qualitative and quantitative methods. The basic premise of this mixed methodology is that such integration permits a more complete and synergistic utilization of data.<sup>22-23</sup>

Qualitative research method of direct interviews was carried out among 4 students. A nonprobability sampling method and its most convenient type – a snowball sampling was used for the respondent selection. Respondents were the students of Tbilisi State University (Georgia). Participation voluntary. Primary data was used, where we have collected data our self, using the interviews. Units of data analyses were words and phrases, where we recorded the interview, and created a transcript afterwards. Interviews have been conducted in June, 2019.

An analytic cross-sectional descriptive study was conducted. Participants were 350 students from Tbilisi State University, who at the time of the survey were at the Bachelor's level of teaching. Students were chosen at the Tbilisi State University on the survey day. The questionnaires were administered randomly to respondents that consented after carefully

explaining the objectives of the study. Out of the 350 respondents, a questionnaire was filled out by 321 (91.7%), while 29 (8.3%) of them refused to participate in the survey (Table 1).

 Table 1
 Demographic characteristics of respondents

Variable	Frequency	%					
Gender							
Male	205	63.9%					
Female	116	36.1%					
Age							
18-20	128	39.9%					
21-23	107	33.3%					
24-26	86	26.8%					
Have you ever smoke cigarette?							
Yes	243	75.7%					
No	78	24.3%					
If yes, at what age did you start smoking? (n=243)							
10-17	87	36%					
After 18	156	64%					
Do you still smoke? (n=243)							
Yes	203	84%					
No	40	16%					

The survey instrument was a semi-structured questionnaire. The questionnaire was modified from the relevant studies.<sup>24</sup> In order to access the difficulty of the questionnaire, 15 pilot interviews were initially conducted.

The data collected from the subjects using the questionnaire contained questions on use of tobacco, knowledge & attitude towards tobacco, exposure to other people smoking, attitude towards stopping smoking, knowledge about media messages about smoking, discussion of smoking in school, etc. The questionnaire contained multiple

response questions with only one option to be selected. The response sheet did not have any name on it and it was confidentially collected in a box kept. The field works took place between January and March 2019. Each interview lasted for 35-45 minutes on average.

Data Collection and Analysis. After the questionnaire had been built, the information of 321 students were collected by a convenient sampling method. Data entry and analysis were done using Microsoft Excel and SPSS version 20. The analysis is performed at the sig. of 5%.

The main limitation of the study was the fact that it was conducted only in one university due to time and budget allocated for the research.

Ethics. The study was approved by the Ethics Committee of the Health Policy Institute. An informed consent was taken from each participant. Only those who voluntarily agreed and gave the verbal consent was included in the study.

#### **RESULTS**

Male and female that participated in the study was 63.9% and 36.1% respectively. Respondents were mostly in the age of 18-20 years (39.9%, n=128); 75.7% (n=243) was recorded as the smoking prevalence in the community. Current smokers were 84% (n=203) respectively. The most prevalent age of initiation was after 18 years (48%, n=118).

The legal age to buy tobacco in Georgia is 18 years, but 36% (n=87) of smokers reported starting smoking before they reached that age (Table 1).

Regarding reasons for smoking, 60% (n=146) sometimes smoked so as to cool off; over 51% (123) sometimes smoked in order relieve stress whereas, 54% (n=131) always smoked to feel relaxed. For increase of performance, 45.0% (109) of respondents sometimes smoked to enhance their work output. 53% (n=129) always smoked as family members smoked, 52% (n=127) always smoked to enjoy with friends. 58% (n=141) of respondents sometimes smoked to sociable, 49% (*n*=118) of respondents sometimes don't think its harmful (Table 2). Gender and Age group were associated with past (p<0.05) but not with present (p>0.05) smoking history (Table 3).

**Table 2** Reasons for smoking

Variable	Reasons for smoking ( <i>n</i> =243)				
	Always	Sometimes	Never		
To relieve stress	86 (35%)	123 (51%)	34 (14%)		
To feel relaxed	93 (38%)	131 (54%)	19 (8%)		
To increase work output	37 (15%)	109 (45%)	97 (40%)		
Family members smoke	129 (53)	68 (28%)	46 (19%)		
Friends smoke	127 (52%)	101 (42%)	15 (6%)		
In order to be sociable	37 (15%)	141 (58%)	65 (27%)		
I don't think its harmful	58 (24%)	118 (49%)	87 (36%)		
It is cool	67 (28%)	146 (60%)	30 (12%)		

Table 3 Cross-tabulation of history of cigarette smoking and demographic data (n=321)

Variable	Have you ever smoked cigarette?		Total	p-value	Do you still smoke?		Total	p-value
	Yes	No			Yes	No		
Gender								
Male	157	48	205		134	23	157	
	49%	15%	63.9%	0.0001	55%	10%	65%	0.776
Female	86	30	116		69	17	86	
	27%	9%	36.1%		28%	7%	35%	
Age group								
18-20	77	51	128		50	27	77	
	24%	16%	39.9%		21%	11%	32%	
21-23	94	13	107	0.029	86	8	94	0.155
	29%	4%	33.3%		35%	3%	39%	
24-26	72	14	86		67	5	72	
	23%	4%	26.8%		28%	2%	29%	

## Qualitative method

Interview 17 years old males. When asked why young people have started consuming tobacco, the respondent answered that the major motivation was a curiosity to taste it. From the course of the interview, it became clear that the interest was directly related to his close social environment and friends:

"In the 6th grade, I started to collect stamps, which were made from cigarette boxes. A group was formed, who did such activities. Those who were collecting the marks were two years older, i.e. 14 years old, and already smokers. They looked-like grown-ups for me then. After that me and my friend decided to start smoking, but we did not know how to take puffs and after tasting it we gave it up".

Despite the fact that he did not enjoy tobacco the first time, he still continued smoking, which makes the hypothesis of the orientation on others more representative.

"I was training myself from childhood and my organism could not accept it. After smoking one or two cigarettes, I felt sick and nauseated".

This respondent began to smoke cigarettes again at the age of 15, in the 9<sup>th</sup> grade. It should be emphasized that the repeated consumption of cigarettes resulted from social relations:

"The environment has affected. Our class went on hiking for two days and I smoked one cigarette. One boy was smoking actively in that period and he offered it to the rest of the boys".

The interview has shown that the consumption of tobacco was considered to be manifestation of their adulthood, maturity and their behavior, primarily or not, was largely influenced by others.

"They used to light cigarettes before girls and act like adult men, thus demonstrating themselves as being stronger than others".

The parents of the respondents were also tobacco consumers.

When asked if tobacco consumption was perceived in young people more positively than negatively, the respondent noted that this behavior was more positively perceived in young people. To the question why he considered it so important, he referred to age-related experience:

"Some people develop mentally at a later age, others from a younger age, but most of them do not realize. If I were this smart back in my school days, I would not have tasted any cigarettes, but some people could not realize this even at my age".

The respondent was also asked in which situations he enjoyed smoking tobacco and whether or not he considered this more as an obsessive behavior or experience of having physiological pleasure.

"Cigarettes make a man relaxed they say, but I think that it's more psychological moment, you only think that it relaxes you, but in fact it does not have any effect on the nerves".

In addition to the main hypotheses of the research, one more factor, the role of stress, was revealed in the process of interview.

"When I finished 9<sup>th</sup> grade, I sustained a trauma and I wanted to do something and I used to smoke one box of cigarettes every day".

Interview 21 years old females. The respondent started to consume tobacco when she became a university student, namely, when she moved from her hometown to Tbilisi as a result of which the composition of her close social environment was upgraded to a greater extent. Perhaps it is a behavior that is caused by stress resulting from a change of environment, but from a respondent's interview it was found out that the main role, the main impact

was the fact that smoking is perceived as a positive behavior by a social group.

"I perceived this behavior as a manifestation of freedom" - this quotation emphasizes the fact that a subject considered this behavior as an act of adulthood and maturity, which she demonstrated to the individuals, who were important members of her social environment.

To a question how she perceived consumption of tobacco by her peers initially, before she started smoking herself, the respondent noted that she considered it positive.

Nowadays she has quitted smoking and notes:

"Nowadays, I rarely see those people, whom I used to meet every day and with whom I started smoking."

**Interview 19 years old males.** In this interview with the respondent the direct confirmation of hypothesis was made:

"I was actively involved in sports and when I quitted it, I was forced to take this bad step because of the classmates' influence".

The person interviewed in the first interview, noted the role of stress, and in the subsequent interview the stress and pleasure factors were not neglected either, and the respondent was asked relevant questions in order to reveal the importance of these variables, in his case.

- "- What do you think, why people consume tobacco?
- To get pleasure or relieve stressful environment.
- Do you think it is the reason for starting the consumption of tobacco?
- I do not think so. Some are interested in smoking at an early age and are becoming imitators of this malicious habit."

Thus, this answer emphasizes the correct formulation of research that the reasons for starting the consumption of tobacco in young people are perceived as socially reputable behavior that causes their interest in tobacco consumption.

When asked which other factors generating his interest in cigarettes, he outlined arousing, besides the immediate social environment, also pointed out the role of cinema, which made this behavior even more aesthetic.

"I used to smoke more for "aesthetic" purposes; the influence of movie culture was present as well."

The interviewed person also believed that tobacco consumption by famous movie characters also encouraged teenagers to smoke. To a more insistent question why he considered it this way, the respondent answered:

"When you are young, you do not pay attention to those bad factors that tobacco consumption may cause. I did not even think about these bad results before the hair loss became more intense and I realized that it was terrible to use tobacco".

The frequency and the circumstance under which the tobacco was consumed were revealed as well.

"I used to smoke about 2 boxes every week, in the surrounding of my friends or classmates."

In regard to the physiological pleasure, he noted that he felt it the least.

"That was the least; I felt a great discomfort because I was engaged in active sports. My organism and particularly my endocrine system, could not easily adopt those harmful substances."

The more the purpose of orientation on other is pointed out in the hypothesis, the more diverse are the dimensions of demonstrating its positive reputation to others. There are several aspects of behavior that can be described — one manifests no only his own maturity, but light forms of "narcissism". In Fromm's viewpoint [17] it is not necessary that narcissistic person make the whole person into the subject of his narcissism: sometimes any aspect of his personality - physical skills, sharp-

wittedness, behavioral capability, etc. may acquires narcissistic hint. In this case, when describing the behavior of tobacco consumption, the respondent noted the following:

"I used to demonstrate my beautiful and long fingers to friends as I smoked. You feel as if you are more self-confident."

Interview 18 years old females. The respondent started to smoke in the ninth grade when she moved from the old school to a new one. To the question whether or not the most part of her new classmates smoked tobacco, she gave positive answer. In addition, a sympathy to a boy who himself used to smoke a tobacco proved to be decisive.

When asked why she started to consume a tobacco, she said:

"Everyone starts for one reason, just to show off herself".

Her family members - father and brother also consume tobacco.

In the interview she said that she tried to give up smoking several times, however, she often found herself in a situation where most of the people were smokers and she started smoking again. In addition, the girl used to consume tobacco to express her identity to a specific group.

The role of stress was also obvious in her case as well. I would like to note that coping with stress by means of smoking tobacco, as the responses show, results from the fact that the given behavior is perceived as a norm that expresses the person's maturity, self-confidence and independence.

## **DISCUSSION**

This study evaluated the smoking prevalence among students and the reasons for and factors that influenced smoking. The prevalence of ever smoked was 75.7% which is very high. Most similar studies in Georgia have reported the opposite with lower prevalence rates.<sup>25</sup> However, other studies have

reported higher prevalence of smoking.<sup>26</sup> The most prevalent age of initiation was after 18 years (48%, n=118). The legal age to buy tobacco in Georgia is 18 years, but 36% (n=87) of smokers reported starting smoking before they reached that age. The similar results were observed in other studies as well.<sup>27-28</sup> The debuting age is of serious concern, that the younger the age at which experimentation occurs, the more health risk to the users.<sup>29</sup> The rate of youngsters smoking in this study calls for more concern and intervention, this age group being most vulnerable.

Several reasons were given by the respondents for smoking such as relieving stress, "to cool off", to feel relaxed and to increase work output. The similar results were observed in other studies.<sup>30</sup>

However, increased work out put, and to cool off, to relieve stress and to feel relaxed were not major reasons for smoking as far less than 50% gave them as reasons for smoking. Whereas, friends smoke, Family members smoke and being social was implicated as major reasons for smoking. People smoke with different motives, some associate smoking with feeling less stressed and relaxed.

In this population, smoking was correlated with Gender and Age. Male to female prevalence of smoking put male rate of smoking higher than females. This is in line with other surveys that showed that the frequency of tobacco use differs significantly between the sexes.<sup>31</sup> However, this study provided a distinction between gender association with past (correlated) and present (uncorrelated) history of smoking. This means that in this population, there was no gender-mediated

influence on current smoking habit. Similarly, Age were correlated only with past, but not with present smoking history in this population. Current smokers were not differentiated according to Age, whereas there were more past smokers among 18-20 age group. These differentials have implications for policy development and appropriate strategy formulation to deal with the scourge.

## **CONCLUSION**

Most of the respondents start smoking tobacco as a juvenile. In this regard, the influence of the circle of friends and family is also very important. The youth's organism has responded negatively to tobacco consumption; however, they continued this behavior. The respondent pointed out that tobacco consumption is perceived more positive than negatively in youth. In their particular case, a close social environment played a decisive role in starting tobacco consumption.

The results support policies and legislation which restrict the availability of tobacco to minors. Introducing the tobacco control laws that prohibit tobacco consumption and advertising in public places, particularly near schools are of paramount importance. Interventions that focus particularly on multiple (i.e. personal attributes, family, and contextual/school) risk factors may have an impact on the use of tobacco by adolescents. Where possible, such programs should be personalized to ensure that they address the specific set of risk factors that has a bearing on each individual's tobacco use.

#### REFERENCES

- World Health Organization. WHO Report on the Global Tobacco Epidemic, 2017: monitoring tobacco use and prevention policies. 2017. Available from: https://apps.who.int/iris/handle/10665/255874
- Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ. Global and regional burden of disease and risk factors: systematic analysis of population health data. The Lancet. 2006;367 (9524):1747– 1757.
- 3. Ginsberg GM, Geva H. The burden of smoking in Israel-attributable mortality and costs. Israel Journal of Health Policy Research. 2014;3(1),28.
- Azzopardi J, Degiovanni S, Farrugia L, Buttigieg A, Montefort S. Barriers to implement a smoke free hospital. What action should be taken? Malta Medical Journal. 2014;26(3):15-20
- World Health Organization. Tobacco, Key facts.
   2019. Available from: https://www.who.int/news-room/fact-sheets/detail/tobacco
- 6. Report on the Global Tobacco. World Health Organization, Geneva, Switzerland. 2011.
- Hosseinpoor AR, Parker LA, Tursan d'Espaignet E, Chatterji S. Social determinants of smoking in lowand middle-income countries: results from the World Health Survey. PloS one. 2011;6(5), e20331.
- Linetzky B, Mejia R, Ferrante D, De Maio FG, Diez Roux AV. Socioeconomic status and tobacco consumption among adolescents: a multilevel analysis of Argentina's Global Youth Tobacco Survey. Nicotine & tobacco research: official journal of the Society for Research on Nicotine and Tobacco. 2012;14(9), 1092-9.
- Jha P, Chaloupka FJ. Curbing the Epidemic: Governments and the Economics of Tobacco Control. Washington DC: The World Bank. 1999.
- Berg C, Aslanikashvili A, Djibuti M. A Cross-Sectional Study Examining Youth Smoking Rates and Correlates in Tbilisi, Georgia. BioMed Research International. 2014;(7170):476438.
- Mukeria M, Kiknadze B, Verulava T. The impact of the Tobacco Control Law on student tobacco use. Archives of the Balkan Medical Union. 2020;55(1):23-34.

- 12. Bakhturidze G, Peikrishvili N, Mittelmark M, Aaro L. The public's attitudes towards tobacco sales prohibitions: Evidence from a nationally representative survey in the former Soviet state of Georgia. Tobacco Control and Public Health in Eastern Europe. 2012; 2(2):99-108.
- 13. Sirbiladze T, Kobaidze M, Javakhishvili M, Ghonghadze D, Tavberidze G, Chichinadze T. Behavior of healthy lifestyle in Telavi municipality teenagers and young people. Research report. Tbilisi (in Georgian). 2016.
- 14. National Center for Disease Control and Public Health. European School Survey Project on alcohol and other drugs. 2016;12-16. Available from: http://www.espad.org/country/georgia
- Bellatorre A, Choi K, Bernat D. The Influence of the Social Environment on Youth Smoking Status. Preventive Medicine. 2015;81:309-313.
- 16. Gegia M, Magee MJ, Kempker RR, Kalandadze I, Chakhaia T, Golub, JE, Blumberg HM. Tobacco smoking and tuberculosis treatment outcomes: A prospective cohort study in Georgia. Bulletin of the World Health Organization. 2015;93(6):390-399.
- Roberts B, Chikovani I, Makhashvili N, Patel V, McKee M. Tobacco use and nicotine dependence among conflict-affected men in the republic of Georgia. International Journal of Environmental Research and Public Health. 2013;10(6):2185-2197.
- Bakhturidze GD, Mittelmark MB, Aarø LE, Peikrishvili NT. Attitudes towards smoking restrictions and tobacco advertisement bans in Georgia. BMJ Open. 2013;3(11).
- Gvinianidze K, Bakhturidze G, Magradze G. Study of implementation level of tobacco restriction policy in cafes and restaurants of Georgia. Georgian medical news. 2012;(206):57-63.
- Framework Convention on Tobacco Control. World Health Organization. 2005. Available from: https://www.who.int/fctc/text\_download/en/
- 21. New law on cigarettes and tobacco coming into effect in Georgia. World Health Organization. 2018. Available from: https://www.who.int/fctc/mediacentre/news/2018 /georgia-introduces-tough-new-tobacco-law/en/

- 22. O'Cathain A, Murphy E, Nicholl J. Integration and publications as indicators of "yield" from mixed methods studies. Journal of Mixed Methods Research. 2007;1(2):147–163.
- 23. Teddlie C, Tashakkori A. Major issues and controversies in the use of mixed methods in the social and behavioral sciences. In: Tashakkori A, Teddlie C, editors. Handbook of mixed methods in social & behavioral research. Thousand Oaks, CA: SAGE. 2003;3–50.
- 24. Centers for Disease Control and Prevention. National Youth Tobacco Survey. 2014.
- 25. Berg CJ, Aslanikashvili A, Djibuti M. A Cross-Sectional Study Examining Youth Smoking Rates and Correlates in Tbilisi, Georgia. BioMed Research International. 2014
- 26. Bakhturidze G, Tchkadua L. Epidemiology of tobacco consumption in Georgia. The European Journal of Public Health. 2002;12:39-39.

- 27. Little M, Ross H, Bakhturidze G, Kachkachishvili I. Illicit tobacco trade in Georgia: prevalence and perceptions. Tob Control. 2019;1–7.
- Gvinianidze K, Tsereteli D. Tobacco smoking attributable mortality and years of potential life lost in Georgia. Georgian medical news. 2012;(206):52-57.
- Klein H, Sterk CE, Elifson KW. Initial Smoking Experiences and Current Smoking Behaviors and Perceptions among Current Smokers. J Addict. 2013;491797.
- 30. Arute JE, Oyita GI and Eniojukan JF. Substance Abuse among Adolescents: 2. Prevalence and Patterns of Cigarette smoking among senior secondary school students in Abraka, Delta State, Nigeria. IOSR Journal of Pharmacy. 5(1); 2015:40-47.
- 31. Gilmore A, Pomerleau J, McKee M. Prevalence of smoking in 8 countries of the former Soviet Union: results from the living conditions, lifestyles and health study. American Journal of Public Health. 2004;94(12):2177–87.