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## School Pupils' Perception Regarding Anti-Smoking Propaganda: A Brief Report

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### Research Article

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#### ABSTRACT

About 12% of school pupils are smokers in Georgia. To learn more about the perception of young people regarding anti-smoking measures, we delivered six anti-smoking messages containing written and pictorial information to 58 ninth-and tenth-graders, mean age 15.2, of both sexes, non-smokers. Subjects were instructed to score each message as most/least convincing not to smoke. Total of 3 school textbooks for ninth-and tenth-graders, currently in use in public schools in Georgia, were surveyed for the presence and content of anti-smoking information. Messages regarding negative effect of smoking on appearance were reported most convincing not to smoke as compared to inscriptions on cigarette packs and messages, regarding organs, damaged from smoking and story of smoker died of smoking. Only one textbook was found containing information about the effect of smoking on appearance. For further improvement of anti-smoking propaganda targeted at school pupils, we recommend to highlight the negative influence of smoking on kids' appearance.

### INTRODUCTION

Smoking is an issue that affects countries worldwide. Several anti-smoking measures such as school-based educational programs, TV broadcasts, banning tobacco advertising as well as prohibition of smoking in the airports, restaurants, offices and other enclosed workplaces, et cetera, are recommended to reduce the problem of smoking in the youth <sup>[1,2]</sup>. The outcomes of anti-smoking measures are subject to careful assessment as well <sup>[3-6]</sup>.

According to European School Survey Project on Alcohol and Other Drugs, smokers make up about 43% of the total population in Georgia. About 12% of school pupils in Georgia are smokers <sup>[7]</sup>. Anti-smoking propaganda is considered a due initiative to reduce smoking among school pupils in Georgia <sup>[8]</sup>.

To make anti-smoking propaganda more effective, it is very important to learn more about the perception of young people regarding anti-smoking measures. To our knowledge, however, only few studies <sup>[9]</sup> have addressed this question.

To extent data in this direction we questioned school pupils what kind of anti-smoking information do they perceive as more/less convincing not to smoke.

In view of special concern of young people with their appearance <sup>[10-13]</sup> we hypothesized, that school pupils should give preference to anti-smoking information, regarding the negative effect of smoking on smoker's appearance. At the same time, we investigated school textbooks, currently in use in public schools in Georgia, to find if anti-smoking information, represented in textbooks, meets the preferences of school pupils.

## MATERIALS AND METHODS

Total of 58 school pupils of both sexes, ninth-and-tenth-graders, mean age 15.2 were recruited in the study. According to the self-report, witness of parents and teachers, all the participants were non-smokers. Participants received written messages about the danger of smoking: 1. Smoking changes the color of teeth, 2. Smoking causes a bad breath, 3. Smoking makes skin spotted, 4. Smoking causes lung cancer, 5. Story of a smoker, died of smoking and 6. Warning inscriptions (“Smoking kills”, “Smoking is dangerous for your health”) on cigarette packs. All the six messages were accompanied by a photograph of smoker having yellow teeth, illustration of the dark spots on the skin of smoker, illustration of the damaged lung tissue, photograph of famous actor, died of smoking and illustration of cigarette packs. Participants were instructed to decide, if information is convincing not to start smoking and to score each type of information according to the principle-score 1 corresponding to “not convincing at all” and score 5 “convincingly strong”. Total of 3 school textbooks for ninth-and-tenth-graders, which are currently in use in public schools in Georgia, were surveyed for the presence and content of anti-smoking information. One tailed T-test was used for statistical data analysis.

## RESULTS

(Table 1) represents the scores given to each type of anti-smoking messages about the danger of smoking.

**Table 1.** Scores given to the messages 1-6, as numbered in the material and methods.

Messages	1	2	3	4	5	6
Total scores	243	263	224	168	181	72
mean	4.2	4.5	3.9	2.9	3.1	1.2
SD	0.8	0.7	1	1.1	1.3	0,6
variance	0.68	0.49	0.99	1.28	1.58	0.36

Messages about the change in the teeth color, bad breath and spots on the skin were scored higher - 243, 263 and 224 respectively, as compared to scores given to the information about lung cancer, personal story of smoker and warning inscriptions on cigarette packs, 168,181 and 72 respectively. One tailed T-test (sign level 0.05), result significance  $p < 0.05$  (Table 2) represents the results of the survey of school textbooks for the presence and content of anti-smoking messages.

**Table 2.** Anti-smoking messages 1-6, as it is numbered in the Material and Methods, found in school textbooks.

Messages	Textbook 1	Textbook 2	Textbook 3
1	--	--	✓
2	--	--	--
3	--	--	--
4	✓	✓	✓
5	✓	--	--
6	✓	✓	✓

School textbooks were found to contain messages on the negative influence of smoking on lungs (4) as well as illustrations of cigarette packs with warning inscriptions (6). Story of famous actor, died of smoking (5) was represented in one textbook. Only one textbook was found containing information about the effect of smoking on the color of teeth (1). Neither negative influence of smoking on skin, nor bad breaths of smoker are mentioned in the textbooks.

## DISCUSSION

Subjects in the study presented reported messages about the change in the teeth color, bad breath and spots on the skin in smokers as more convincing not to start smoking as compared to the information about lung cancer, personal story of smoker and warning inscriptions on cigarette packs. In our opinion, special perception of school pupils regarding the effect of smoking on appearance may be ascribed to the importance of body image for young people [10-13].

According to Zaidi and coauthors [9] pictures and videos demonstrating cancer sufferer smokers, as well as pictorial presentation of organs, damaged from smoking are perceived as a most effective anti-smoking messages by the high-school students in Pakistan. At the same time, authors report that pictorial/multi-media messages are perceived as more effective as compared to written health warnings. Data obtained in our study partially coincide with those of Zaidi and coauthors - in both studies subjects under examination displayed preference to pictorial warnings over written one.

We used negative emotional written and pictorial messages and with this respect, data obtained in the study presented are in accordance with reports on the effectiveness of negative emotional content of anti-smoking messages on motivating people to try to quit [14,15] as well as with health behavior change theories, suggesting negative emotions evoked by the anti-smoking advertisements to motivate people to change their smoking behavior [16,17].

The results of the survey of school textbooks, currently in use in public schools in Georgia, suggest that school textbook authors did not pay due attention to anti-smoking information, that school pupils consider most convincing not to smoke.

Further study should recruit more participants and cover different age groups of school pupils to learn more about the perception of school pupils regarding school-based anti-smoking measures.

At present moment, based on the results obtained, we would recommend to highlight the negative influence of smoking on kids' appearance in the anti-smoking educational information, included in school textbooks. At the same time, as long as mass media is recognized as a very effective source for anti-smoking propaganda <sup>[17,18]</sup>, we would recommend to organize special TV broadcasts, focused on the negative effect of smoking on kids' appearance.

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