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SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING TOBACCO SMOKING IN MEDICAL STUDENTS

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თამბაქოს მოწევის შესახებ ცოდნის, დამოკიდებულების და პრაქტიკის კვლევა სამედიცინო სტუდენტებში

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უნივერსიტეტი

რეზიუმე

თამბაქოს ეპიდემია არის ერთ-ერთი ყველაზე დიდი საზოგადოებრივი ჯანმრთელობის საფრთხე, რამაც მთელს მსოფლიოში 8 მილიონზე მეტი ადამიანის სიკვდილი გამოიწვია. ახალგაზრდები ყველაზე მარტივი სამიზნეა. კვლევის მიზანი იყო შევვეფასებინა ცოდნა, დამოკიდებულება და პრაქტიკა (KAP) თამბაქოს მოწევის შესახებ საქართველოში, სამედიცინო სტუდენტებს შორის. შემუშავდა KAP კითხვარი, რომელიც მოიცავდა 44 კითხვას. გამოკითხვა ჩატარდა თბილისის სახელმწიფო სამედიცინო უნივერსიტეტის - მედიცინის, საზოგადოებრივი ჯანდაცვის და მენეჯმენტის ფაკულტეტის სტუდენტებს.

Introduction. Tobacco smoking has been important health risk globally for almost 2 centuries [1,6]. The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than 8 million people a year around the world. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke. The most susceptible segment of the population to the risky behavior and hazardous health habits are children and adolescents, as well as young adults [3-5]. Sometimes, knowledge of the risks does not help with correction of the behavior. Therefore, it is very interesting to assess not only the level of knowledge of the target population but their attitude and practical behavior as well [2]. The **aim** of our study was to assess knowledge, attitude and practice (KAP) regarding tobacco smoking among medical students in Georgia.

Materials and Methods. Questionnaire development. The questionnaire was developed in Georgian language based on the literature search and analysis of the similar studies [1,2,5], as well as consultation with the specialists in the field. The questionnaire was piloted in a group of the 4th year students. It contains 44 questions: 10 demographics, 8 knowledge, 10 attitude, 16 practice. The final version was approved by the Department of Epidemiology and Biostatistics.

Sampling. Sampling frame consisted of students of the 1st and 4th year of the Tbilisi State Medical University. Random cluster sampling was used with confidence interval/margin of error 10 and confidence level 95%. Total number of participants was 242: 1st year students 39.51% (96), 4th year students 60.08% (146); Faculty of Medicine 62.96% (153), Faculty of Public Health 36.63% (89); female 183 (75.31%), male 59 (24.48%). Mean age was 20.63 (SD=2.2).

Survey. Cross-sectional study was performed. The survey was anonymous and self-administered. The survey was carried out in groups and before starting, the respondents were informed of the aim of the study and explained its significance. Each questionnaire had an introductory paragraph which contained instruction on how to fill the questionnaire, note that this was voluntary and expression of gratitude for the spent time. Principles of Declaration of Helsinki were followed.

Data analysis. The electronic replica of the questionnaire was prepared in Epidata 3.1. It gave the possibility to use the checks option to introduce the data entry error control. All questionnaires were given

the unique number, entered into Epidata and then exported to Stata 14.0. Data analysis was done in Stata 14.0. Descriptive statistics was used to generate frequencies, percentages and proportions. Where relevant, the Chi-square test was used to determine any statistical significance.

Results. Demographics. The questionnaire was mostly filled out by the students with high academic achievements (A, A&B, B - 82,72%). The parents of the respondents mainly had higher education (85.0%). For almost 81.0% the family's socio-economic state was average and in 14.0% higher than average. Together with being a student 38.4% of respondents worked as well. Mainly girls, 4th year students and the students from the Faculty of Medicine ($p < 0,0001$).

Majority of the students participating in the study denied having any chronic diseases (77,4%). Declared chronic disease were more prevalent in girls, 4th year students and the students of the Faculty of Medicine ($p < 0,0001$). In 64.0% of respondents a friend was smoker, father (41.3%) or sibling (21.9%) [It was possible to choose several answers to this question.]

Knowledge. The majority of the respondents were not aware of full information regarding the tobacco products. See details in Table 1.

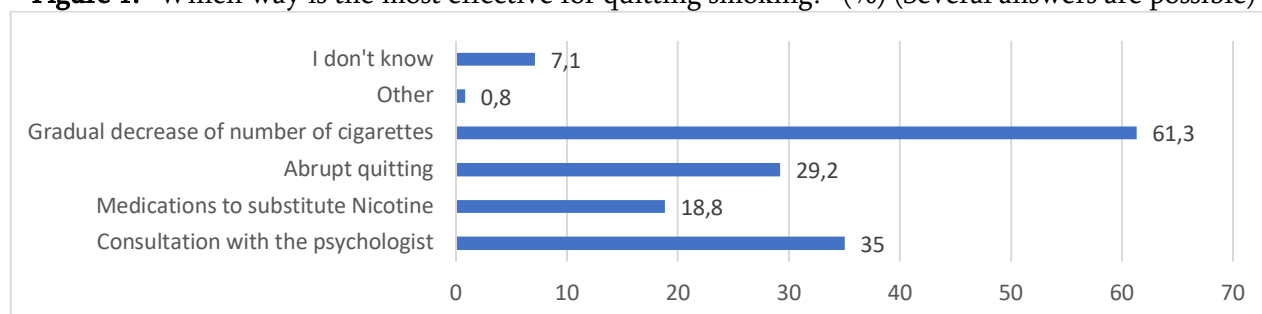
Table 1. Questions regarding the knowledge on tobacco and tobacco products

Questions	Correct answers	Difference by gender ($p < 0.05$) [better responses]	Difference by the faculty ($p < 0.05$) [better responses]	Difference by the study year ($p < 0.05$) [better responses]
What do the small particles in depths of lungs cause?	40.7%	male	Faculty of Public Health	1 st year
What damages the cardiovascular system?	72.0%	female	Faculty of Medicine	1 st year
What does passive smoking mean?	94.2%	male	Faculty of Medicine	1 st year
What are smoking-related health hazards?	84.4%	male	Faculty of Medicine	4 th year
Is the harm from tobacco, electronic cigarette and cigarette smoking the same?	21.0%	male	Faculty of Public Health	4 th year
What substance does the cigarette not contain?	25.9%	none	none	1 st year
What disease(s) are being caused by tobacco consumption?	62.55%	female	Faculty of Medicine	4 th year
Which substance in the cigarette is mainly responsible for myeloid leukemia?	16.05%	male	Faculty of Medicine	4 th year

Attitude. Majority of the students (75.3%) were bothered by the smell of the tobacco smoke when somebody was smoking nearby. 46.0% were bothered by the hazard to their health.

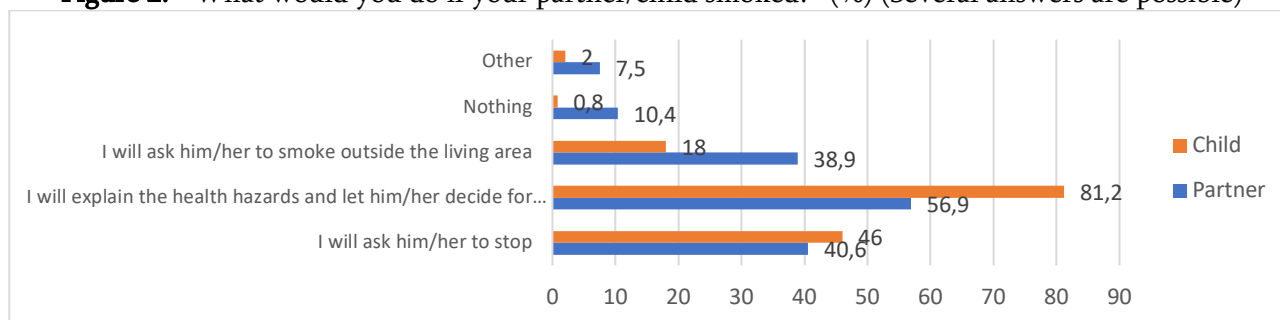
According to the majority of the respondents (61.3%) the most effective way to quit smoking was gradually reducing the amount of the cigarettes. See details on Figure 1.

Figure 1. "Which way is the most effective for quitting smoking?" (%) (Several answers are possible)



The situational tasks were presented to the respondents to find out their choice of action for making the partner/the child quit smoking. According to the majority (56.9%/81.2%) the best approach was explaining the potential health hazards and letting them make their own choice. Details are given on Figure 2.

Figure 2. "What would you do if your partner/child smoked?" (%) (Several answers are possible)



Only 7.1% of the respondents estimated the State and society activities against tobacco consumption as effective and 39.2% and 40.0% considered them as less effective or even ineffective.

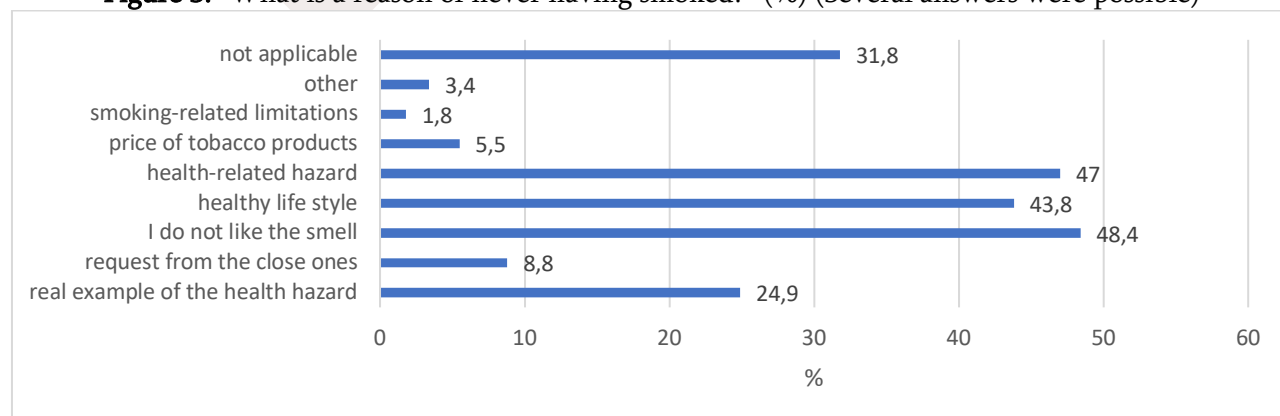
Attitude of the respondents to the smoking-related issues is presented in Table 2.

Table 2. Attitudes towards smoking

	agree and somewhat agree	Difference by gender (p<0.05) [better responses]	Difference by the faculty (p<0.05) [better responses]	Difference by the study year (p<0.05) [better responses]
Do you think that the smokers are being discriminated?	34.16%	males	Faculty of Public Health	4 th year
Do you think that the general public is sufficiently informed about the hazards of smoking?	98.35%	females	Faculty of Medicine	1 st year
Do you think that the children are sufficiently informed about the hazards of smoking?	37.45%	females	Faculty of Public Health	1 st year
What do you think about banning the smoking scenes from previously produced movies, etc.?	39.5%	females	Faculty of Public Health	4 th year
What do you think about absolute banning of the tobacco products advertisement?	80.7%	females	Faculty of Medicine	1 st year

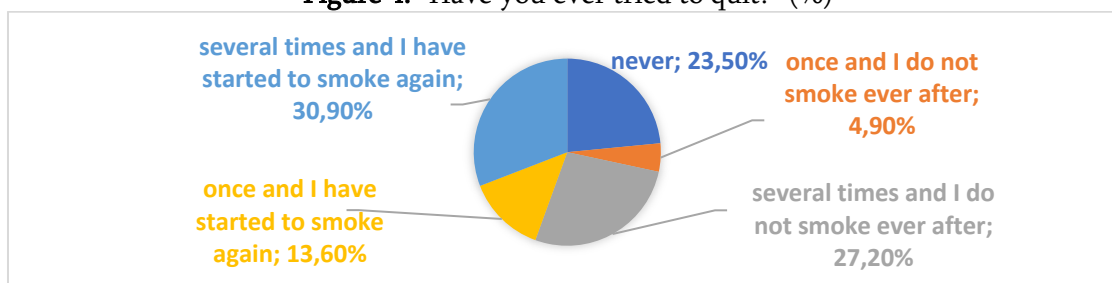
Practice. 20.6% of the respondent's smoke (33.9% male, 16.4% female; 19.6% Faculty of Medicine, 22.47% Faculty of Public Health; 18.75% 1st year students, 21.9% 4th year students). 64.8% have never smoked and 13.6% have quit. The reasons of never having smoked are given on Figure 3.

Figure 3. "What is a reason of never having smoked?" (%) (Several answers were possible)



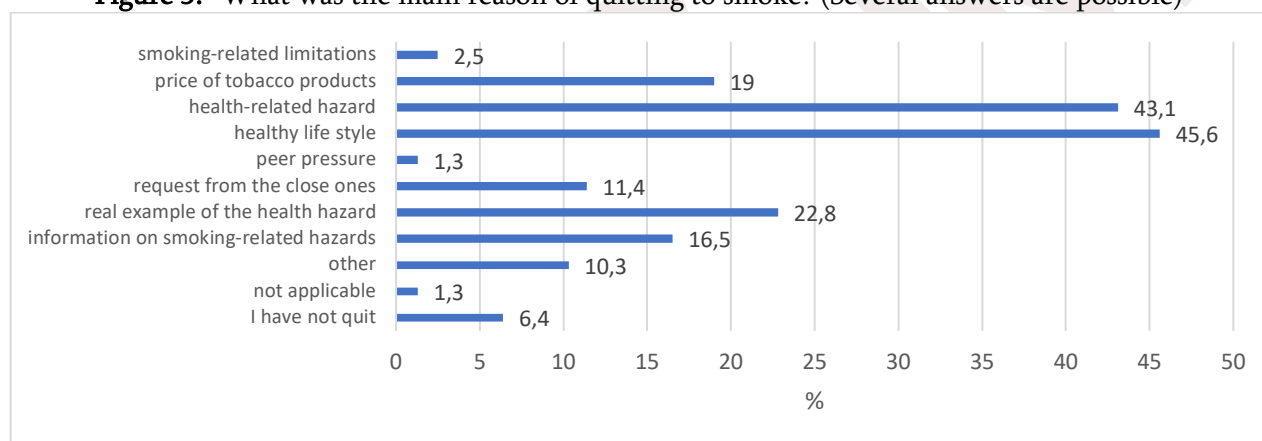
Among the smokers, 60% smoke daily, 12.3% occasionally, and 27.7% just in certain situations. The mean number of cigarettes per day was 8.4 (SD=6.4), range from 1 to 30. The mean age of starting to smoke was 16.5 (SD=2.3), the youngest age 10 years and the eldest 23 years. Majority has started to smoke at the age of 15–19 years. Main reasons of starting to smoke (several answers were possible) were interest (60.4%) and peer influence (44.0%). 24.2% said that this was trendy. 16.5% named stress and only 2.2% wish to lose weight. Figure 4 shows the frequency of attempts to quit smoking. It is remarkable that 32.1% of the respondents have not resumed smoking after having quit.

Figure 4. "Have you ever tried to quit?" (%)



On average there were 3.4 (SD=2.6, range 1-30) attempts to quit. The main reasons to quit smoking are presented on Figure 5.

Figure 5. "What was the main reason of quitting to smoke? (Several answers are possible)"



For the majority the main reason of restarting to smoke after having quit was cigarette-related pleasure, a method of dealing with stress and abstinence syndrome (see Figure 6).

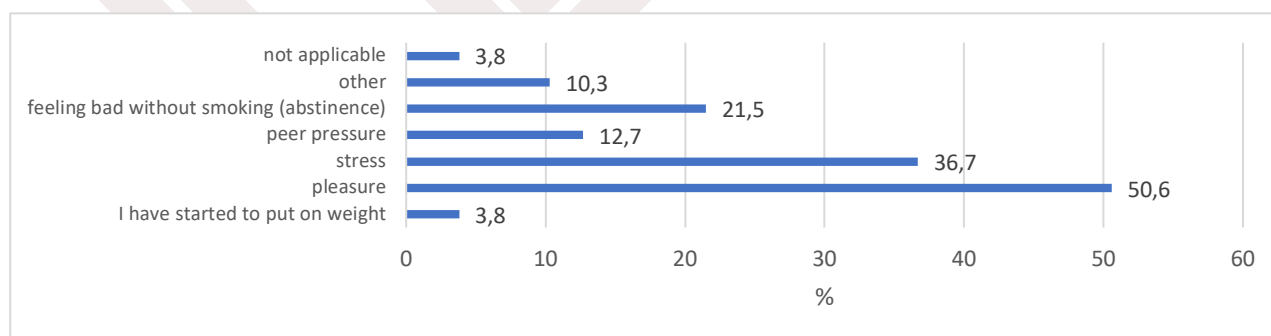


Figure 6. "What is the main reason of restarting to smoke after having quit? (Several answers are possible)"

The maximum time till restarting after having quit was 7.9 months (SD=7.8) on average; median was 6 months. 8 students have stayed the minimum of 1 month until restarting, and only one student managed to stay for the maximum of 4 years. Monthly mean amount spent for cigarettes was 102.2 GEL (SD=94.1), minimum 6 GEL (n=1), maximum 400 (n=1), median was 65 GEL.

11.1% of the respondents have smoked in places where smoking was prohibited, (20.3% male, 8.2% female). Several students even got fine for smoking at the banned places and this incident has affected them and even made some of them quit.

Discussion and Conclusion. Obtained results are mainly in line with the international findings [1,2,3]. Though there were seen some differences as well. For example, based on WHO publications the increase of the prices has affected significantly the prevalence of smoking, but that did not seem important for our respondents. As opposed to the international tendencies, our respondents have not considered smoking as means to lose weight. There was statistically significant difference between public health and medical faculties in responses on knowledge. This can be explained with better basic knowledge among students of medicine compared to public health.

Based on the knowledge component the majority of the students do not have sufficient information about tobacco-related health hazard. Taking into account that we have studied medical students it is less probable that the students of other specializations will be more knowledgeable in this regard. It is advisable to increase awareness activities in this regard.

References:

1. Elamin OE, Elamin SE, Dafalla BA, El-Amin ME, Elsiddig AA. Cigarette smoking among medical students in The National Ribat University, Sudan. *Sudan J Paediatr.* 2013;13(2):45-51.
2. Nasser AMA, Zhang X. Knowledge and factors related to smoking among university students at Hodeidah University, Yemen. *Tob Induc Dis.* 2019 May 16;17:42.
3. Prigitano A, Binda S, Pariani E, Destrebecq A, Castaldi S, Cogliati M, Esposto MC, Romanò L. Tobacco and e-cigarette smoking habits among Italian healthcare students. *Ann Ig.* 2020 Nov-Dec;32(6):608-614.
4. Riou França L, Dautzenberg B, Falissard B, Reynaud M. Are social norms associated with smoking in French university students? A survey report on smoking correlates. *Subst Abuse Treat Prev Policy.* 2009 Apr 2;4:4.
5. Wamamili B, Wallace-Bell M, et al. Cigarette smoking among university students aged 18-24 years in New Zealand: results of the first (baseline) of two national surveys. *BMJ Open.* 2019 Dec 18;9(12):e032590.
6. West R. Tobacco smoking: Health impact, prevalence, correlates and interventions. *Psychol Health.* 2017 Aug;32(8):1018-1036. doi: 10.1080/08870446.2017.1325890.

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SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING TOBACCO SMOKING IN MEDICAL STUDENTS

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SUMMARY

Introduction. The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than 8 million people a year around the world. The young people are the easiest target for the risky behavior. **Aim.** To assess knowledge, attitude and practice (KAP) regarding tobacco smoking among medical students in Georgia. **Materials and Methods.** KAP questionnaire containing 44 questions was developed in Georgian. Sampling frame consisted of students of the 1st and 4th year of the Tbilisi State Medical University (TSMU) – Faculty of Medicine, Faculty of Public Health Management and Faculty of Public Health. Random cluster sampling was used and total number of participants was 242: 1st year students 39.51% (96), 4th year students 60.08% (146); Faculty of Medicine 62.96% (153), Faculty of Public Health 36.63% (89); female 183 (75.31%), male 59 (24.48%). Mean age was 20.63 (SD=2.2). Cross-sectional study was performed. The survey was anonymous and self-administered. Principles of Declaration of Helsinki were followed. Data analysis was done in Stata 14.0.

Results. Based on the knowledge component, most students do not have complete information about tobacco products and the diseases they cause. Statistically higher number of the students of the Medical Faculty and male students had correct information about the harm of tobacco. 20.6% of respondents smoke, male 33.9%, female 16.4%. The main reason for starting smoking was cited as interest and the influence of friends. 32.1% of respondents stopped smoking after the quitting attempt. The maximum length of time to smoking after quitting was 7.9 months on average (SD = 7.8).

Conclusion. Obtained results are mainly in line with the international findings. There was seen a statistically significant difference between public health and medical faculties and male and female in responses on knowledge and attitude. Taking into account that we have studied medical students it is less probable that the students of other specializations will be more knowledgeable in this regard. It is advisable to increase awareness activities in this regard.

Keywords: KAP survey, Georgia, students, smoking, tobacco, cigarettes, medical students