

SURVEY RESEARCH: SMOKING HABITS AMONGST STUDENTS

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ABSTRACT

Smoking has been one of the major threats to social health in the past few decades. The problem is concerning, causing over eight million annual deaths worldwide. The most common way of tobacco consumption is burning (cigarettes) but there are other ways: waterpipe tobacco, pipe tobacco, smokeless tobacco products, etc. With the appearance of alternative smoking systems such as heated tobacco products, electronic nicotine delivery systems and electronic non-nicotine delivery systems brought to the prevalence of smokers in general. Some of these systems don't contain tobacco, however, they often have harmful or potentially harmful ingredients (flavors, glycerol, etc.). Cigarette smoke may cause cancer, cardiovascular and respiratory diseases, but we often forget about the changes and problems tobacco smoke causes to our oral health. Some of them are periodontal problems, mucosa changes, pigmentation and demineralization of the enamel.

This study aims to find out in which ways our targeted group consumes tobacco, whether they know the health risks tobacco consumption brings and the ways it affects people in their environment.

The method used in this research is a questionnaire. This study will help in creating a database of opinions and behaviors that will help dental professionals when dealing with a smoker patient. Therefore, dental professionals will have a better idea of how to advise and which measures to take when treating such patients.

Keywords: Smoking, smoking effect on health, smoking techniques, tobacco, hookah, dental health, students.

Introduction

There is no doubt that smoking is an addiction. Tobacco smoke is a mixture of substances formed by incomplete combustion of tobacco leaves at high temperatures and the most common ingredients are nitrogen, carbon dioxide, carbon monoxide, oxygen, nicotine, polycyclic aromatic hydrocarbons and metals. Nicotine is an addictive ingredient. Addiction is a chronic recurrent brain disease that develops from repeated use of a drug containing a psychoactive substance for a long period of time. This causes changes in the addict's brain thus leaving drugs to have long-term negative effects on the brain, consequently to experience and behavior, which is the basis for the definition of addiction as a chronic relapsing disease. The definition of the World Health Organization is most often used, according to which "addiction to drugs (psychoactive substances, drugs) is a special mental and physical condition of the organism that is created by the action of the agent that creates addiction. It is characterized by the experience of being forced to take an addictive substance from time to time or regularly, in order to experience its desired effect, or to avoid the inconvenience of not taking the drug. "Addiction is characterized by compulsive drug use and use, even despite awareness of the negative health consequences. [1, 2]

Most smokers would like to quit smoking, and each year about half of smokers try to get rid of this addiction permanently. However, only about 6 percent of smokers manage to quit on the first try. [3] Most smokers will have to make more attempts before they can quit permanently. [4, 5]

Tobacco use is the leading cause of premature deaths, given that 1.3 billion people consume tobacco, almost 6 million deaths are attributed to it and it is expected that by 2030 that number will increase to 8 million. The World Health Organization (WHO) points out that smoking remains the main but preventable cause of death in the world. [6, 7, 8]

Smoking conventional cigarettes is a risk factor for cardiovascular disease, stroke, lung cancer and

chronic diseases of the respiratory system. Studies have shown that smoking is associated with joint diseases and an increased number of limb fractures and harmful effects on muscles, tendons and ligaments. [4]

Side smoke makes up about 85% of the smoke in an enclosed space and is most responsible for the development of cardiovascular diseases among non-smokers. Carcinomas are one of the most dangerous diseases associated with smoking, primarily cancers of the respiratory organs. [4]

Conventional cigarette smoking harms almost all the organs in the body, but the consequences it leaves on the oral cavity are enormous, as the oral cavity is the first to be hit by tobacco smoke. Tobacco smoke acts chemically and thermally on the lip cavity. Thus, conventional smoking leaves consequences on both soft and hard dental tissues causing a wide range of consequences for oral health, from harmless conditions to carcinomas of the oral cavity. Many years of research have proven that smoking causes discoloration of teeth, composite fillings and other prosthetic replacements, halitosis (bad breath - *Fetor ex Ore*), alteration of taste and smell, delayed wound healing, periodontal disease, oral candidiasis, caries, leukoplakia and has a huge impact on the success of implant therapy. [9, 10, 11, 12, 13, 14]

The most serious diseases that are closely related to conventional smoking are oral precancerous lesions and oral cancer. Oral precancerous lesions are changes that, if left untreated, can lead to malignant alterations and the development of cancer. Oral precancers include leukoplakia, erythroplakia, lichen planus, etc. Oral leukoplakia, the most common premalignant lesion in the mouth, is far more common in smokers than in non-smokers. One study suggests that leukoplakia in the floor of the mouth is associated with smoking habits, while leukoplakia at the lateral borders of the tongue is more common among non-smokers. [15, 16, 17].

Extremely interesting studies linked the increased incidence of endodontic procedures with conventional smoking. The results of a longitudinal study by Kral and co-workers from 2006 suggest

that smoking may play a causal role in the development of lesions resulting in endodontic treatment and are 70 percent more likely to need endodontic treatment than non-smokers. [18]

Materials and Methods

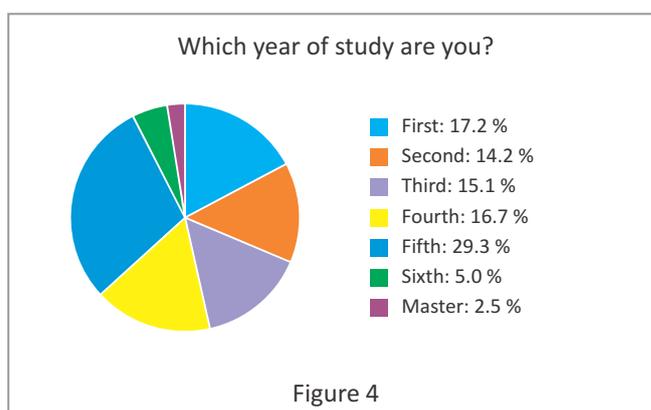
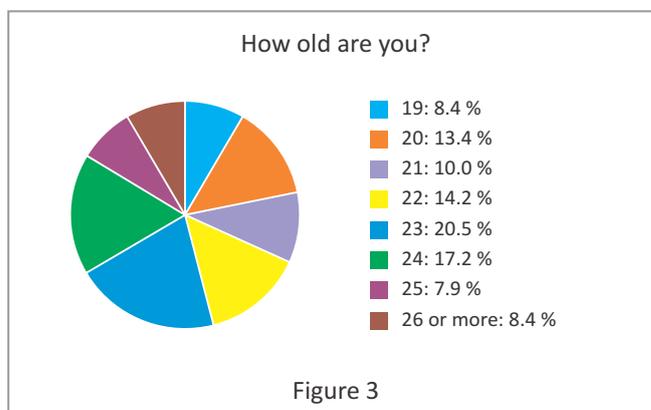
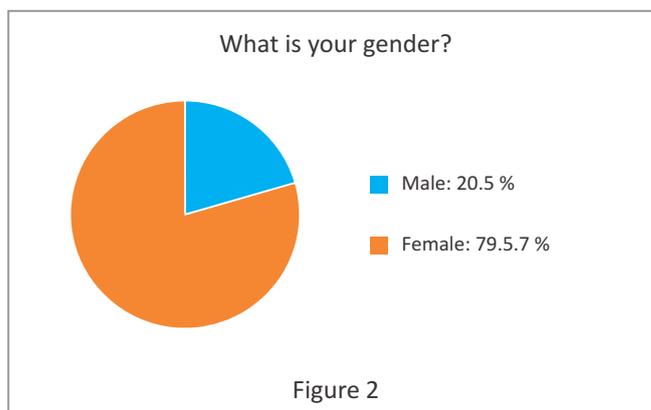
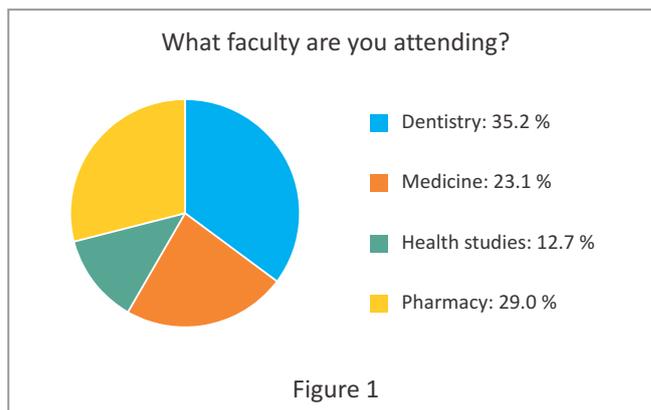
This study aims to find out in which ways our targeted group consumes tobacco, whether they know the health risks tobacco consumption brings and the ways it affects people in their environment. We want to highlight the knowledge and lack of it when it comes to health risks and problems the consumers face with. The method used in research is a questionnaire/survey. Targeted group were students at colleges closely connected to public health such as medical, dental, health studies and pharmacy students.

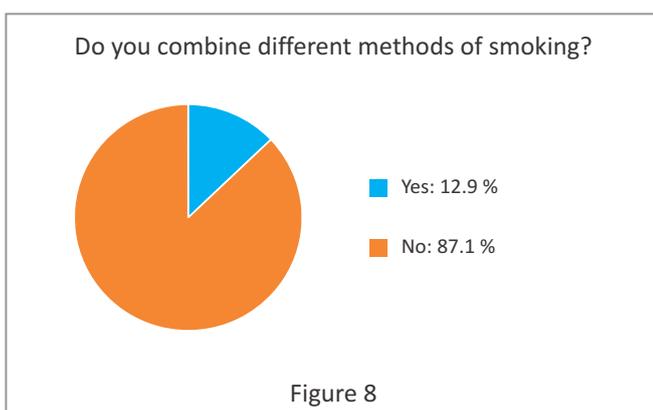
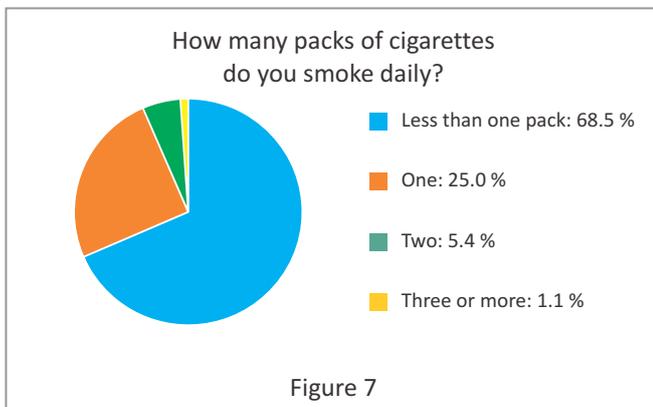
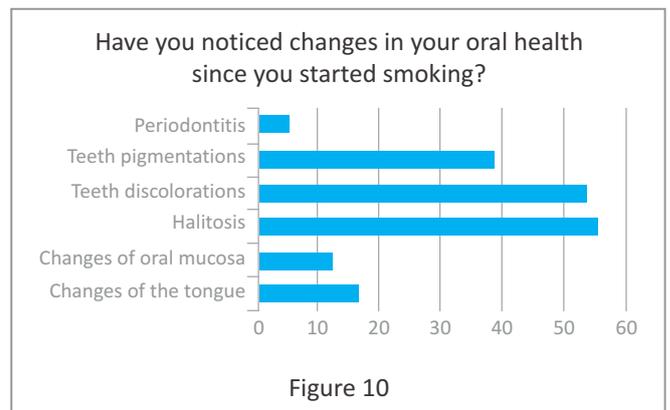
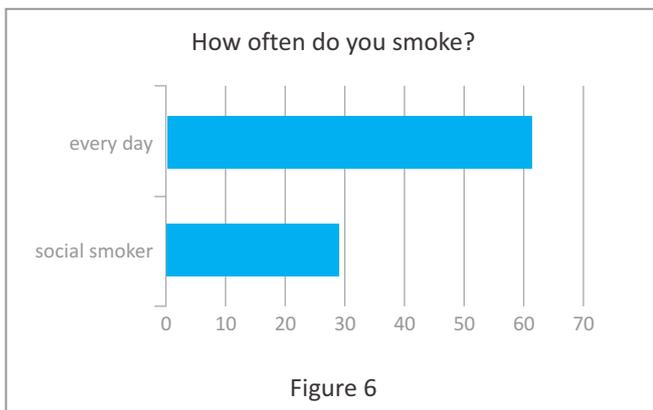
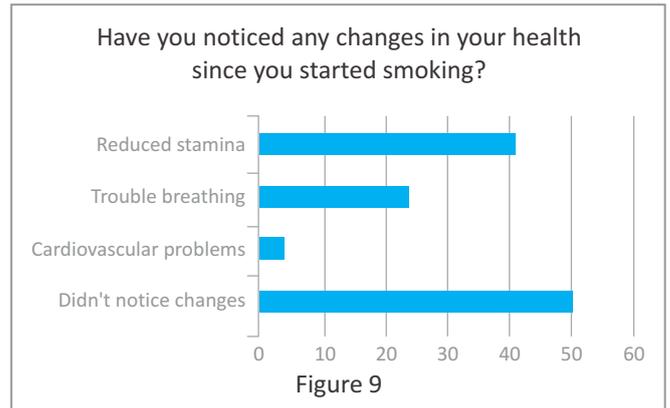
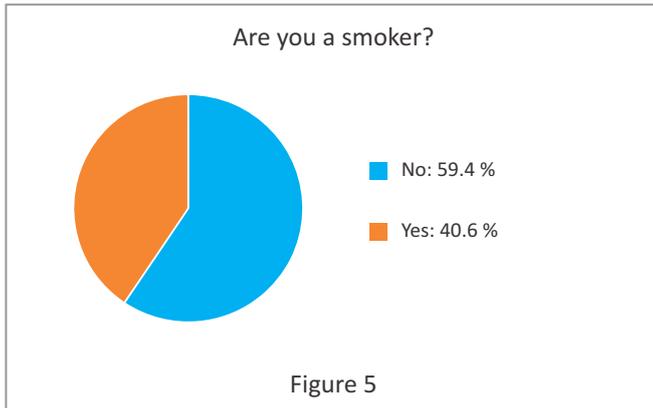
In the survey we found out basic demographic information about our targeted group and what college they attended. We asked about their smoking habits and health changes they have noticed since they started smoking. One of the questions was to identify health problems and risks that smoking brings. [19, 20, 21]

Our research will help in creating a database of opinions and behaviors that will help dental professionals when dealing with a smoker patient. Therefore, dental professionals will have a better idea of how to advise and which measures to take when treating such patients.

Results

The questionnaire was sent out to the students at colleges closely connected to public health, medicine (23%), dentistry (35.1%), pharmacy (28.9%) and health studies (12.6%) and most of these students were in their fifth year of study. (figure1, 4) was answered by 239 students (male, 20.5% and female, 79.5%) (figure 2). The prevailing age was 23 years (20.5%), 24 years (17.2%) and 22 years (14.2%) (figure 3).





There were 142 (59.4%) nonsmokers and 97 (40.6%) smokers answering the questionnaire (figure 5).

When asked for how long they have been smoking they answered: less than a year 10 (10.1%), 1 to 5 years 49 (49.5%), more than 5 years 40 (40.4%).

67 (62%) of the smokers that answered the questionnaire smoke every day and 32 (29.6%) are social smokers (figure 6). Some of them only smoked on the weekends, some smoked one pack of cigarettes per week and some only smoked in stressful periods.

63 (68.5%) smoke less than a pack per day, 23 (25%) smoke one pack daily, 5 of them (5.4%) smoke two packs per day and 1 (1.1%) smoked 3 or more packs per day (figure 7).

84 (76.4%) smoke cigarettes, 19 (17.3%) smoke waterpipe, 17 (15.5%) use tobacco heating systems and 10 (9.1%) vape and only 12.9% of the students would combine the different methods of smoking (figure 8).

45 (41.3%) noticed lower stamina, 26 (23.9%) had trouble breathing, 4 (3.7%) had problems with cardiovascular system and 55 (50.5%) didn't notice any change in their wellbeing (figure 9).

4 (5.6%) of smokers noticed periodontitis, 39 (54.9%) noticed discoloration of the teeth, 28 (39.4%) had pigmentation on the teeth, 9 (12.7%) had changes on the oral mucosa, 12 (16.9%) noticed changes on their tongue and 40 (56.3%) noticed halitosis (figure 10).

When asked if they knew what kind of health problems smoking could cause 66 (41.5%) knew that smoking can cause heart attack, 60 (37.7%) blood clots, 51 (32.1%) circulation problems, 58 (36.5%) COPD, 79 (49.7%) breathing problems, 67 (42.1%) gum diseases, 40 (25.2%) teeth loss, 51 (32.1%) teeth sensitivity, 50 (31.4%) asthma, 20 (12.6%) type 2 diabetes, 32 (20.1%) higher infection risk, 13 (8.2%) decreased quality and loss of hearing, 14 (8.8%) decrease quality and loss of eyesight, 23 (14.5%) early menopause, 50 (31.4%) decreased fertility, 41 (25.8%) erectile dysfunction, 43 (27%) sperm damage, 15 (9.4%) osteoporosis, 70 (44%) cancer. Only 2 (1.3%) thought smoking couldn't cause these problems and 86 (54.1%) knew that all of the mentioned health problems could be caused by smoking.

61 (58.7%) tried quitting and 43 (41.3%) didn't try quitting.

Conclusion

Although the number of smokers compared to nonsmokers is smaller, it's still concerning that these numbers are almost equal. Even though there are new methods of smoking, most of the student smoke cigarettes, which have been proved as the most harmful. Since these are relatively new smokers (have been smoking from 2 to 5 years) they still haven't noticed mayor changes in their health which usually come after decades of smoking. The best indicator of that is that most of the smokers only noticed discoloration and pigmentation of the teeth as well as bad breath

coming from tobacco consumption and the least number of them noticed periodontitis and teeth lost appearing in older smokers. Study shows that the students are mostly aware of the health problems from notices on cigarettes packs and from those mostly talking about in the media, some by their doctors but they aren't that familiar with the less usual but serious health problems coming with cigarettes consumption.

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