

SPECIAL ARTICLE

Twenty five years of antismoking movement started by medical students: some further goals

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Summary

Twenty five years ago, medical students of the former Yugoslavia accepted an idea that emerged from the Medical School in Tuzla to carry out a national preventive campaign "January 31st, a Day without Cigarette". This campaign was soon recognized by the World Health Organization (WHO) as one of "the most successful preventive achievement of medical students in Europe". The only contribution that the government made was printing and releasing a postal stamp on January 31st, 1990. During the war in Bosnia, the UN sanctions imposed to Serbia, and the NATO bombing campaign of the F.R. Yugoslavia (Serbia & Montenegro) weakened this antismoking campaign. At the time of the civil war in several Yugoslav republics, more citizens, including children and youth, started to smoke than in previous years. In 2002, January 31st was proclaimed as the National Antismoking Day in Serbia and the "Republic of Srpska" in Bosnia & Herzegovina; the Republic of Slovenia, and

to a smaller extent the rest of the "Bosnian Federation", continued to observe this antismoking campaign. In the future, the medical professionals have to look for new ways to help smokers quit smoking and to maintain abstinence. In addition to education and professional advice, they may use smoking cessation interventions, especially to smokers that require elective surgery. Medical students should continue to participate in the national antismoking campaigns, and they could be included in the comprehensive smoking intervention programs to improve their smoking cessation counseling skills. However, the governments should plan and rigorously realize needed measures to control smoking at public places, offices, and other closed working places. Such measures are especially needed in poor and developing countries where many people die unnecessarily.

Key words: antismoking campaign, cancer prevention, carbon monoxide, cotinine, medical students, smoking cessation

Introduction

When it became clear that tobacco smoking exerts the greatest toll in preventable death, illness, and disability [1], in some Western countries, most prominently in the USA and UK, a very intensive antismoking campaign was initiated. At that time, more than 50% of physicians in the former Yugoslavia smoked, and smoking prevalence among physicians was almost as high as

that of the general population. Thus one of us (R. I., a pharmacologist and toxicologist) preferred to invite medical students rather than physicians to participate in his project entitled "January 31st, a Day without a Cigarette". With his students at the Medical School, University of Tuzla, he participated in numerous TV and radio shows, gave lectures on smoking as a risk factor for various diseases, advised smokers how to quit smoking, and recommended teenagers not to start smoking [2]. The students from Tuzla printed and distributed thousands of posters (Figure 1), and visited the capitals of all 6 Republics in the country and several large cities to spread the campaign by the local mass media. The Congress of the Yugoslav Medical Students accepted this campaign, and some European medical schools also participated in this campaign. Unfortunately, the Yugoslav government only contributed by printing and releasing a postal stamp on January 31st, 1990 (Figure 2). In 1991, WHO invited the students

Received 12-03-2007; Accepted 09-04-2007

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Figure 1. This poster is a modification of the original poster by the medical students in Szeged, Hungary. At the calendar, they added “January 1st - December 31st” instead of “January 31”. Thus, a poster with such change could be displayed for a whole year. The medical students in Tuzla published thousands of original (illustrator Hasan Fazlic, Sarajevo) and modified posters, and distributed them to every place in the former Yugoslavia. Also, the posters written in “Slavica” alphabet, a combination of the Cyrillic and Roman alphabets, were published and widely distributed. The illustrators of these posters were the students at the primary school “Mate Balota”, Buje, Istria, Croatia.



Figure 2. On January 31st 1990, the Yugoslav Post Office released a postal stamp to support the antismoking campaign of the medical students.

from Tuzla to Geneva, Switzerland, to a special session as sign of appreciation of this “the most successful preventive achievement of medical students in Europe”. A group of 40 students and professors participated in this session of WHO. According to the numerous letters from former smokers mailed to the Medical School in Tuzla in 1980s and early 1990s, many smokers quit smoking as a direct result of this campaign that took place during almost the whole January.

During the war in Bosnia, the UN sanctions imposed to Serbia, and the NATO bombing campaign of the F.R. Yugoslavia (Serbia & Montenegro), this anti-smoking campaign was weak. The majority of the most active students and professors that participated in this campaign left Tuzla and emigrated to other parts of Yugoslavia and various foreign countries, such as the Czech Republic, USA, and Germany. The students and their teachers that remained in Tuzla directed their preventive activities to alcoholism and drug abuse, and the antismoking campaign has been largely neglected. At the same time, mainly due to the posttraumatic stress disorder (PTSD) and to uncontrolled advertising and smuggling of cigarettes, more adults, children and youth, started to smoke during the war years, than in previous years [3].

Fortunately, two former leaders of the campaign, now refugees, keep mailing several dozens of letters every December to remind the editors of mass media in the former Yugoslav republics to keep antismoking campaign alive. In 2002 the democratic governments of Serbia and the Republic of Srpska proclaimed January 31st as the National Antismoking Day, and they accepted various antismoking measures that may contribute to the reduction of smoking in these countries. The Republic of Slovenia and to the lesser extent the Bosnian Federation are still observing January 31st.

How to decrease the prevalence of smoking?

Although nearly 41% of smokers in the USA try to quit smoking each year, only about 10% achieve to maintain abstinence [4]. Unfortunately, pharmacotherapies to treat nicotine dependence (nicotine replacement therapy, bupropion, varenicline) have important, but moderate efficacy. These medications are not available in many developing countries, and most smokers in the lower socioeconomic segments of population can not get such kind of help. Therefore, due to persistently high rates of initiation and poor rates of stopping smoking, the prevalence of smoking is slowly decreasing in adults with income below the poverty line. To increase abstinence of smokers who

wish to quit smoking, we would suggest to the general practitioners, anesthesiologists and surgeons several promising approaches.

A surgical episode provides a unique opportunity for smokers to avoid tobacco permanently. Because smokers have an increased risk of intra- and postoperative complications [5-7], and most are free of cravings immediately following surgery [8], smoking cessation interventions are most effective during that “teachable moment” [9]. Anesthesiologists and other physicians evaluate patients before and after elective surgical procedures and can provide counseling before discharge from the facility. Brief preoperative smoking-cessation interventions may change behavior perioperatively [10], but they are generally unsuccessful for permanent smoking cessation [11]. To maximize the effects of pre- and postoperative smoking cessation interventions led by physicians, the addition of pharmacotherapy as an aid to smoking cessation can be of enormous help. In addition to receiving verbal and written advice and in some cases a prescription of bupropion or varenicline preoperatively, and nicotine patches postoperatively, the patient should sign a declaration of commitment to stop smoking preoperatively, and in many cases postoperatively, as well. Such patients should be informed that they will be interviewed on smoking behavior and subjected to a biochemical test for the abstinence confirmation. Estimation of carbon monoxide (CO) in expired air can be simply done by EC50 Smokerlyser (Bedfont Instruments, Kent, UK) and a semi-quantitative saliva cotinine assay can be done with the Accutest NicoMeter Cotinine Test (Jant Pharmacal Corp., Encino, CA, USA). The exhaled CO and/or cotinine (the major metabolite of nicotine) have been used for assessing nonsmoking status.

Regardless of the various improvements related to smoking cessation, prevention to become a smoker is the best way to avoid this modifiable risk factor. In addition to antismoking campaign with main goal to instruct children, youth and adults how to avoid smoking, firm measures designed by governments are needed for rigorous control of smoking at public places and closed collective working spaces. Medical professionals and other experts should advise government how to mobilize public media, educators in every school, youth organizations and others to keep schools and universities smoke-free.

Epilogue

Approximately 70% of smokers are interested in

quitting [12], but they rarely receive adequate smoking cessation advice from health professionals, especially in countries where the prevalence of smokers among physicians is high. We have recently found [13] that the prevalence of smokers among Yugoslav adults was 34.8% before they came to the US. Forty percent of them have quit smoking; the majority of these persons who have quit smoking did so within 5 years of immigrating. This indicates that acculturation has a significant role on smoking cessation. Perhaps a similar effect may be obtained by creating a new national cultural environment related to smoking, especially among youth. Medical students may help in generating such change. They should continue to participate in the national antismoking campaigns, and they could be included in the comprehensive smoking intervention programs [14] to improve their smoking cessation counseling skills. Such activities of medical students, and all other intensive national measures, are especially needed in poor and developing countries where “people die unnecessarily” [15].

Epidemiologic research conducted in the late 1940s identified cigarette smoking as a “cause” of cancer. This finding, and the reports by the Royal College of Physicians (1962) and the U.S. Surgeon General (1964) helped to create the concept of “risk factor” in the development of a disease [16]. Thus, in addition to “early detection and treatment” of cancer, epidemiologic studies of smoking initiated additional cancer prevention strategies, especially identifying various carcinogenic substances and reinvented some old concepts, such as that cancer is the outcome of combined factors (constitutional and environmental). The realization that tobacco smoking is carcinogenic influenced many smokers to quit that habit in various developed countries. However, this concept was insufficient to reduce smoking prevalence in many countries which lack proper antismoking measures.

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