
Editorial comment

Cigarette smoking in young people: what to search for and what action to take

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Smoking related diseases have now reached global epidemic proportions and are responsible for approximately 3.5-4 million deaths yearly. There are few signs of abatement. Actually, the World Health Organization experts continue to send warnings to governments and health professionals, in view of the fear that if the current pattern continues, the number of deaths from tobacco is expected to rise to about 10 million a year by the 2020s or early 2030s. By that time, if this trend is not reversed, tobacco use will eventually result in the death of an estimated 250 million children and young people who are alive today¹.

Therefore, tobacco control efforts should be focused on this population segment. Many health professionals now believe that efforts directed at adult smokers have little chance to progress beyond the present level of success. On the other hand, a smoking habit is usually acquired in early adolescence. Currently, very few people begin to use tobacco after the age of 18-20; almost all smokers have already developed a habit and an addiction to smoking by the time they graduate from high school. For this reason, young people represent the main source of new recruits for the tobacco industry, which has to continuously replace adult smokers who quit or die; the fast onset of nicotine dependence ensures that many adolescent smokers will continue to use tobacco during their adult years. So, one of the major keys in reducing this tobacco epidemic lies in our ability to prevent adolescent experimentation.

The incidence and prevalence of smoking among young people is still very high, higher than is usually believed. Thirty

years of warnings, information, increasingly restrictive regulations and declining social acceptability have not had much impact on young people's attitude and behavior with regard to smoking. Indeed, the decrease in the prevalence of smoking among adolescents seen in the 1970s slowed significantly in the 1980s. In recent years, we have witnessed a new increase in the number of adolescents who resort to smoking. Besides, this habit is taken up at an earlier age than previously documented.

The ESPAD (The European School Survey Project on Alcohol and Other Drugs) has evaluated European students' behavior with regard to recreational and illicit drugs since 1995². In 1999, this research, coordinated by the Swedish Council for Information on Alcohol and Other Drugs and the Pompidou Group of the Council of Europe, involved approximately 95 000 students, aged 15-16 years, in 30 European countries, Italy included. No substantial change in the incidence of smoking among the ESPAD students was observed from 1995 to 1999 and smoking seems to be a well-established habit among European youths. Almost half of the countries reported increases in tobacco consumption; there seems to have been a slight reduction only in a very few cases. On the whole, in all ESPAD countries, more than half of the students had smoked cigarettes at least once in their lifetime, and in almost half of the countries about 40% admitted that they had smoked during the last 30 days.

This result significantly exceeds the 26% prevalence reported, for the same period, in the Monitoring the Future Study³ conducted at the University of Michigan among 14 000 American students of the

same age as those of the ESPAD. However, in more recent years this percentage has declined significantly⁴.

In Italy, the project involved 250 schools and about 20 000 students aged 15-19 years⁵. In this sample, larger than that studied in ESPAD, the prevalence of students who reported smoking during the last 30 days increased from 39% in 1995 to 45% in 1999; in 2000 this percentage decreased slightly to 43%. Furthermore, 6 out of 10 of these students have tried cigarettes in their lifetime. So Italy appears to be one of those European countries where the prevalence of smoking among young people reaches high levels.

The incidence of smoking represents another health problem, because in many countries the habit is taken up at an even younger age. In fact, the age at the first use of cigarettes has significant consequences⁶. It has been shown that the earlier one begins to smoke, the more likely he/she is to be a current smoker as an adult. Moreover, those who became regular smokers at an earlier age, usually smoked more in their adult life. So, early initiation is a significant predictor of a stronger addiction and of a low expectation to quit in the future⁷. Furthermore, an ever-growing base of evidence indicates that the health risks associated with smoking also depend on the duration and intensity of use. Thus, initiation at a young age implies a longer exposure to a greater amount of tobacco smoke and, as a result, an increased likelihood of having to face tobacco-related problems.

It should also be noted that smoking cigarettes can be the first step towards other licit and illicit drugs.

The importance of the age of initiation has induced someone to assert that to delay the onset of smoking may be a good preventive strategy.

Currently, smoking initiation among Italian youths seems to occur between 13 and 14 years of age, whereas the habit is usually consolidated by the age of 16⁵. By the age of 13, 4% of students are current smokers and by 14 years of age, 8% smoke cigarettes daily⁵.

In this issue of the *Italian Heart Journal*, Effuso et al.⁸ present the results of a study on the incidence of smoking in two Italian cities, a regional capital and a provincial town.

Their data confirm that Italian youths start to experiment with cigarette smoking in the first adolescence, between 13 and 15 years of age, and that > 90% of Italian students start smoking by the age of 18. They did not find any significant difference in the age of onset between the two cities or between sexes.

The study also investigated the factors that influence the age at which cigarette smoking is taken up, comparing data between the different social milieus in the two areas.

This is a very important issue to consider when planning interventions aimed at preventing tobacco use among youths. In fact, adolescents are particularly vulnerable to a number of hazardous behaviors with which they seem to be faced in their laborious transition to

adulthood. A great number of risk factors related to adolescent tobacco use have been identified in previous epidemiological studies. In the 1994 Surgeon General's report these are classified into four categories^{6,9}: 1) socio-demographic factors, which include socio-economic status, parental education, family structure, gender and race and can influence the developmental challenges and/or create discrepancy between aspirations and positions; 2) environmental risk factors, which are those external to the adolescent that may nonetheless affect his behavior. Environmental risk factors for tobacco use include the accessibility and availability of tobacco products, interpersonal factors such as parents', peers' and siblings' use or approval of tobacco use, the perception by the adolescent that smoking is a widespread and normal behavior and the lack of parental support in growing up; 3) behavioral risk factors, which include a low level of academic achievement, the lack of skill in resisting external influences, experimentation with tobacco products, the use of alcohol or other drugs and deviant behavior patterns; finally, 4) personal factors that are related to smoking among young people are the perception that tobacco use is functional to a purpose and an aid to cope with personal problems or social difficulties, with a perceived negative self-image, a low self-esteem, a low self-confidence, a deficient self-control, and a low psychological well-being.

The comparative importance of each of these risk factors has been evaluated in many studies, sometimes with conflicting results. Effuso et al.⁸ did not find any significant relationship between the age at the onset of smoking and the chief socio-demographic and environmental risk factors. However, some of these factors appeared to be related to the habit of smoking among youths in a previous study they conducted in the same social setting¹⁰.

The development of tobacco use among adolescents progresses in five stages: from the forming of a belief and an attitude about trying, experimenting with, regularly using cigarettes and being addicted. The process usually takes about 3 years. Many adolescents who are regular cigarette smokers, are addicted and experience withdrawal symptoms when they try to quit.

So we should distinguish between the stages of initiation, experimentation and maintenance of the habit of smoking among youths, because the relative importance of the risk factors may be different in each phase. Adolescents' perception of the pervasiveness and functions of smoking (smoking serves positive functions and can be used as a self-enhancement mechanism or as an aid to overcome personal or social difficulties) seems to be a significant risk factor for initiation and to play a crucial role in setting the stage for adolescents to begin tobacco use^{6,11}. In this early phase, the role of other factors such as environmental risk factors may impact to a lesser extent. In fact, how adolescents perceive their social environment may influence their be-

havior much more than the environment itself. This accounts for the sizeable investments made by the tobacco multinationals in marketing cigarette ads directed at young people; children's attitudes and beliefs are critical to the adolescents' conditioning process¹¹. It has been shown that teens usually regard smoking as an adult behavior and as a behavior more common than may actually be the case. This leads them to harbor a positive image of smokers. Obviously, this may heavily affect adolescents' susceptibility, particularly those with greater socio-demographic and personal problems, who may end up adopting smoking as a way of improving their own self-image or of coping with their psychosocial difficulties. The presence of this susceptibility is very important because it entails a risk of experimenting with smoking which is increased 2-fold¹¹. When the susceptibility has been well established, many situations can easily lead to experimentation. In this phase, environmental factors such as the availability of tobacco products and peers' pressure play a relevant role^{6,11}. Once adolescents have experimented, approximately half continue to smoke and become addicted¹¹.

The very recent decrease in the incidence of cigarette smoking among youths observed in the United States has been chiefly ascribed to the stiffer restrictions on tobacco industries' advertisements and to the ever decreasing social acceptability of smoking. This kind of strategy has produced significant results, but mainly in younger people⁴. The relative importance of the risk factors may, in fact, vary at different ages, and this should be kept in mind when planning preventive interventions directed at young people, differentiating the approach according to age brackets¹².

So far, community and school programs to decrease a favorable attitude towards smoking among very young people seem to achieve good results in reducing both the incidence and prevalence. In fact, the most important scientific associations focus their smoking prevention guidelines on this kind of interventions^{9,11}.

Therefore, there is a need for more research on the factors influencing the onset of smoking among young people and on programs' effectiveness in preventing it. Moreover, the scientific community should advocate

the support of the local and national political institutions in promoting research and interventions in this field.

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