



EDITORIAL

Tobacco smoke: it is time for pediatricians to feel directly concerned^{☆,☆☆}



Fumaça de cigarro: é hora dos pediatras perceberem que têm tudo a ver com isso

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It has been stated that the epidemic consequences of smoking-associated diseases rank among the greatest public health catastrophes in the past century.¹ Many cancers as well as chronic diseases have tobacco as their specific and direct cause or their main risk factor. Not only do active smokers suffer from these diseases, but passive smokers do as well.

In children, the deleterious effects of tobacco smoke start by the time of conception, as has been demonstrated in acute lymphoblastic leukemia,² or anorectal malformations;³ however, without any doubt, they begin *in utero*. For instance, non-syndromic orofacial clefts⁴ and likely other malformations⁵ are related with maternal smoking during pregnancy, as well as low birth weight. The results of some studies have alerted about the poorer lung function in infants whose mothers smoked during gestation,⁶ a situation which may be related with increased risk of developing asthma later in life.^{7,8}

The list of diseases in which tobacco is a risk factor for morbidity and even mortality, in children and adolescent passive smokers, is long and will likely increase in the future.^{1,9} Very importantly, children and – to some extent – adolescents do not have the opportunity of opting

to smoke or not, contradicting the argument of the tobacco industry, which states that smoking is a free choice.⁹ Thus, tobacco smoke exposure is a concerning and increasing pediatric issue, and recognizing it as a problem is very important because it represents the first step to eradicating this global public health epidemic.¹⁰

The MPOWER program is a policy package to reverse the tobacco epidemic within the Tobacco Free Initiative of the World Health Organization (WHO),¹¹ based on the measures of the WHO Framework Convention on Tobacco Control, which has proven useful to reduce smoking prevalence. The program aims to serve as a reference for stakeholders at the country level to help them translate tobacco control policies into practice. MPOWER stands for Monitor, Protect people, Offer help, Warn about the danger, Enforce bans, and Raise taxes. The article by Urrutia-Pereira et al.,¹² in the present issue of the *Jornal de Pediatria*, relies on this strategy of monitoring prevalence and risk factors associated with smoking in adolescents living in Uruguiana, RS, Brazil.

As in many other places, the prevalence of smoking among adolescents is high in Uruguiana. More than 29% of those adolescents included in the study reported having tried smoking; more worryingly, almost 12% are current smokers and, as a consequence, they are at risk of becoming adult smokers. In fact, only one in three believe they can quit smoking, provided they wanted to; and up to 32% tried to stop smoking cigarettes the previous year. One possible reason for the high prevalence of smokers is the answer to “*Is it easy to get cigarettes when you want to smoke?*”: 80% of who tried smoking and 65% of those who had not

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tried found it is easy to get cigarettes. “*Cigarettes can be easily obtained*” is one of the variables associated with smoking in adolescents (OR: 3.82). Thus, authorities have a clear opportunity and a great responsibility to enforce bans and raise taxes in accordance with the MPOWER program, in order to make it more difficult to obtain access to cigarettes. Furthermore, legislation seeking smoke-free communities obtains additional benefits in children’s health, such as substantial reductions in preterm births and hospital attendance for asthma attacks.¹³

Another interesting point of the study by Urrutia-Pereira et al.¹² is the clear difference of the exposure in passive smokers between those who have tried and have not tried smoking: the authors found significant differences between both groups in passive exposure to tobacco “*inside of rooms,*” “*at home,*” or “*in cars.*” It is especially interesting that not smoking at home in the previous seven days reduced the risk of being a smoker by 50%, which, together with the fact that the advice from parents is a protective factor too (OR: 0.67), shows the very relevant role of the family in this particular community. Furthermore, it is important to underline that interventions to reduce exposure to tobacco smoke at home have a low level of effectiveness, because although they reduce tobacco smoke pollution, air contamination remains.¹⁴ Thus, it is very important to have a smoke-free home environment prior to any attempt by the adolescent to smoke tobacco, in light of the difficulties to clean it afterwards. On the other hand, family interventions to prevent children and adolescents from initiating tobacco smoking have moderate effectiveness (risk ratio: 0.76; CI 95%: 0.68–0.85).¹⁵

The role of peers, as in many studies related with adolescence, is crucial in the inception of smoking. The highest independent risk factors in this study were “*smoking among the closest friends*” and “*cigarette offered by the closest friend*” with odds ratios higher than 4.0. It has been shown that the effects of smoking by friends are even stronger than those of parental smoking, as well as that the effect of social networks is stronger for females than for males and for non-smokers than for smokers.¹⁶ The results of a systematic review¹⁶ support the hypothesis that peer selection and peer influence are of crucial importance in smoking behavior, and function both in the inception and maintenance of the smoking habit. Nevertheless, the influence of the social network is not only one-handed: there is evidence that adolescents who are isolated are more likely to smoke than those who are group members or leaders.¹⁷ School-based programs must consider these two types of influences of networks and provide not only information, but also skills to interact with peers. A recent systematic review and meta-analysis to assess the effectiveness of school-based smoking prevention¹⁸ showed a significant long-term effect of those programs, with a mean 12% reduction in starting smoking. However, this efficacy did not appear in the first year, except for the case of combined social competence/social influences programs, which also proved to have higher efficacy than the smoking prevention programs on their own.

It is definitely time to consider the epidemic of tobacco smoking as a direct concern for pediatrician: 90% of adult smokers start smoking before age eighteen,¹ thus we must make all possible efforts to prevent it and not just rely on the

governmental policies. Pediatricians are the first providers of health in which parents trust: we, as pediatricians, have the great opportunity and immense responsibility to look at the exposure to tobacco smoke of our patients and initiate counseling to prevent it. Brief counseling based on the “five A’s” (ask, advise, assess, assist, and arrange follow-up) is the major component of cessation counseling and has shown to increase the number of attempts to quit and the success of those attempts.¹⁹ However, surveys of members of the American Academy of Pediatrics (AAP)²⁰ show that although most pediatricians (>80%) advised their adolescent patients who smoke to quit, only one-third discussed quitting strategies. Most likely, the situation is not very different in other countries. We need to introduce skills in tobacco smoke prevention and in helping those who smoke to quit in pediatrician training programs. It is definitely time to feel concerned.

Conflicts of interest

The authors declare no conflict of interest.

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