

# THE INFLUENCE OF FAMILY ON EDUCATIONAL ANTISMOKING PROGRAMMES EFFICACY

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**Abstract:** Social environment of family has the crucial effect on children's attitudes to the life style in future. Smoking parents and other close relatives are not only the health risks for young passive smokers, but also the risk model for his/her future behaviour. Both foreign studies and Czech results of the programme „Non-smoking is normal“ describe unsuccessful influence of health education on children living in smoking families. Most of children under 9 years of age who tried to smoke, obtained their first cigarette from smoking relatives. The early start of smoking enhances the risk of quick development of dependence. The most important goal is to engross parents' interest for their active participation at school based programmes of health education.

**Keywords:** children's smoking, the family role, health education

The influence of children tobacco smoking is usually viewed in three major ways: at the beginning of life through maternal smoking, through children exposure to environmental tobacco smoke (ETS) and through role modeling by smoking parents (WHO, 2001).

Parental cigarette smoking has been identified as a significant risk factor for children and adolescent cigarette smoking; later, peer influence may increase the former parental impact. The mechanisms for the transmission of this influence include direct modelling of behavior, creation the norms and attitudes towards smoking, parenting styles and controlling access to smoking contacts. Even smoking by non-biological parents appeared influential similarly as smoking by biological parents (Fidler et al, 2008). On the other hand, paternal quitting reduces child's experimentation and daily smoking and increases adolescent's smoking cessation (Rainio et al, 2008).

Parental smoking may influence through social, biological and genetic pathways: smoking parents might normalize smoking, increase access to cigarettes and serve as a model for offspring. In utero exposure to nicotine modifies the nicotine receptors in the brain with consequent greater susceptibility to nicotine dependence later in life. Heritability of nicotine dependence estimated to be around 60 %, but the importance of social influence on smoking initiation has been confirmed (Paul, 2008).

There are also other mechanisms by which parents may influence their children's smoking: both parenting style (e.g. authoritarian, autocratic, democratic, permissive, unengaged) and specific parenting practices (smoking restrictions) have unique effects on children and adolescent smoking. Authoritative parenting has been associated with reduced current adolescent smoking and lower rates of smoking initiation in childhood, while permissive parenting showed increased frequency of child tobacco use (Ditre, 2008).

Specific family practices include expressed attitudes toward and discussion about smoking, disapproval of smoking, punishment for smoking, active engaging in antismoking behaviors (asking smokers not to smoke on public places or in their children presence etc.). Unfortunately, there are only few studies concerned about the effects of parental smoking restrictions on children smoking. Nevertheless, analysis of the results of multi-level restriction (full ban, partial ban, no ban) showed that more restrictive home smoking policies were associated with a lower frequency of children smoking attempts and current both occasional and daily adolescent smoking. There is also evidence that parental restriction on smoking at home can delay the progression of smoking behaviors among young people who are in the early phase of smoking and reduce adult tobacco use, such as children and teens change their behavior over time (Ditre, 2008).

It has been suggested, that socioeconomic conditions, such as race/ethnicity and children age, may moderate the associations between paren and children smoking, but the studies did not confirmed this hypothesis. Smoking mothers are more strongly associated with smoking by daughters than by sons; on the other hand, father's smoking increased smoking among boys, but not among girls (Ashley et al, 2008). The reasons why mothers may be more influential on daughters are not well understood: may be, they are more important model for girls who develope positive outcome expectancies and have greater need the intimacy and family ties, compared with boys.

As the medical evidence about health risks of both active and pasive smoking has grown, the attitudes towards smoking have changed: smoking is becoming a more marginal activity and attention has focused on the risk of exposure to ETS in the home (Robinson, Kirkcaldy, 2007). Majority of parents (90 %) believe that infants could be protected from ETS in the home, 65 % of parents use some preventive strategy, but only 18 % do not allow smoking at home, although medical data shows that only compleete smoking bans are associated with an objective measured reduction in children's exposure to ETS (urinary cotinine) (Blackburn et al, 2003). In our programme (Non-smoking is a norm) the prevalence of parents who described the believes about cogency of children protection was similar only in non-smoking group; smoking parents percived the importance of protection much more indulgently (only 45,5 % if both parents smoked parents and 74 % of single smoking parents called for protection). The total ban of smoking at home was accepted in 33,3 % of families with two smoking parents, in 51 % of families with one smoking parent and in 95,5 % of non-smoking families.

Rules about smoking in the home environment are not fixed, but are continually negotiated. The key factor is the age of children in the family: as they grow up, former restrict rules of their exposure to ETS become more weak, because smokers percived the older children as less vulnerable to tobacco smoke. Older children also become

more mobile and thus it becomes much harder not to smoke around them. Especially smoking mothers in daily practice have to vote between their needs for a cigarette and the needs to take care for children (Holdsworth, Robinson, 2008). Very often, they do not construct their moral tales with reference to normative rules about smoking round children, but more through their own perception of others who smoke both in the family and community. Thus the specific friendship or family group are key to the understanding of the moral tale (Holdsworth, Morgan, 2007).

Maternal smoking includes not only more time spent with children, but also the interactions with other smokers – family members and friends. In this context, their smoking behavior may be both a source of conflict and mutual support. Mother is often the main person who creates and portrays everyday family moral sense and responsibility. While public health opinions promote moral imperative NOT TO SMOKE, smokers use to create special smoking behaviours, focused on „which type and how many cigarettes“, „where and with whom to smoke“, „stigma associated with the bad smell“, „familiar experiences in contest medical knowledge“, and „children anticipation of parent’s smoking“ (Bayer, Colgrove 2002). The perception of being a smoking parent are not about the objective health risks for children, but about how is perceived their parental responsibilities by public opinion. Smokers regulate and support each other; health – both of their and their children - is viewed more as a lottery than something what one has much over the control. On the other hand, smoking mothers may be stressed by understanding that their children try to copy their smoking behavior.

Most of the studies concerned on children and tobacco describe children as passive victims of ETS exposure, of targeted advertising campaigns and/or of modelling by their smoking family members and peers. The common view of this problem is that children have no choice about being exposed to tobacco smoke and that only adults are fully responsible for the active protection of them (WHO, 2001). In fact, children from age six/seven are influenced by public health campaigns and school education and are informed about the health risks of smoking. Their growing awareness for smoking parents’ health may be a source of their stress and tension at home. Children of smoking parents are more concerned about the serious morbidity and possibility of parents’ premature death, than worrying about the risks for their own health damaged by exposure to ETS. Children’s fears may significantly contribute to repressive anti-smoking rules at home and even to motivation of smokers for stop smoking. Therefore, children are the potent agents in the policing of smoking bans in the home.

Having a smoke-free home may be associated not only with reduced smoking initiation (Wakefield et al, 2000), but also with reduced the number of daily smoked cigarettes among continuing smokers (Gilpin et al. 1999) and with increased successful quitting, as it has been mentioned above (Messer et al. 2008).

Unfortunately, anti-smoking attitudes of children at their young ages do not necessarily rule out the potential to start smoke when they are older. Today, children and adolescents spend less time with their parents and more time outside home with friends. Children’s physical and sexual maturation occurs at an earlier age. In developed countries children have increased possibilities to obtain informations and communication technologies. All these factors allowes to show more independence, particularly with respect to those behaviors that belong to adult world, including smoking.

Despite of excise taxation, enforcement of laws prohibiting the sale of tobacco products to minors and litigation against tobacco companies which increased difficulty in obtaining cigarettes, children may obtain tobacco products from friends or adult relatives. These potential sources may cause youth to believe that tobacco products are easily accessible. It is no doubt that perceived accessibility increases the risk for smoking among children and has a stronger effect among those with peer smokers (Doubeni et al, 2008).

It is generally accepted that early smoking experimentation increases the risk of adult smoking, but only limited studies were concerned on this topic. All confirmed that any children smoking experimentation increases the risk of being a smoker in adulthood. Experimentators had a greater risk to follow-up smoking than puffers (Paul et al, 2008). Genetic research has found the genetic variants within nicotinic acetylcholine receptors which are responsible for the severity of addiction. A substantial shift in „susceptible“ versus „protective“ haplotypes at the CHRNAS-A3-B4 locus occurs in subjects who began daily smoking before the age 16 but not in subjects who began smoke later (Weiss et al, 2008).

The Czech school-based educational programme „No-smoking is a norm“ for 1st, 2nd and 3rd classes, includes questionnaire measured the effectiveness of the intervention both among children and their parents. The parental sample has been divided into 3 groups: (1) no-smoking parents, (2) one smoker, and (3) both smoking parents. The most important findings obtained by the analysis of parental data are described:

- less smoking parents (compared to no-smokers) believed that children' exposure to passive smoking is a serious health risk and that it is necessary to protect children against passive smoking; differences are significant
- only few parents (10 % of smokers, 23 % of no-smokers) thought that prohibition of smoking on public places would be the motivation for smokers to do not smoke at home
- only 5 % of no-smokers allowed to smoke at home; in contrast, 50 % homes with one smoker and 67 % homes with two smokers are „smoking places“
- 14 % of no-smokers, 30 %, resp. 42 % of smoking parents were not interested about children' exposure to smoking outside their homes (with friends, relatives)
- almost 90 % of smokers and 66 % of no-smokers believed that „smoking outside“ is a good protection of children against passive smoking
- the opposite trends were seen in prevalence of parent's opinions about the role of school in the anti-smoking education: the school effort was approved by 90 % of no-smokers and 66 % smoking parents
- almost 40 % of smokers and only 7 % of no-smokers resented the discussions about smoking ban on public places
- almost 50 % of smokers and 28 % of no-smokers have promised to be more concerned in their child protection against passive smoking
- majority of parents (80 %) would like to protect children against their active smoking, while 13 % resigned to this problem, and 6 % of parents believed that it would be fully child's issue

- 21,3 % of children exposed and 9,2 % of children not exposed to passive smoking within their homes, tried to smoke when they visited the 3rd class of primary school;
- while in the pre-test the main donors of cigarettes were adult relatives (46,5 % of exposed children and 45,4 % of non exposed children),
- four months later, in post-test, the main donors were friends (47,3 % of exposed and 42,9 % of non-exposed children)
- while the program significantly enhanced children's knowledge about the health risks of smoking, their attitudes towards smoking and smoking behavior were influenced by non-smoking/smoking habits of their relatives

The improvement of parental interest about their children attitudes to the healthy life style and their realization in daily practice is the important goal for the Czech society.

## **VLIV RODINY NA ÚČINNOST PROTIKUŘÁCKÝCH VÝCHOVNÝCH PROGRAMŮ**

**Abstrakt:** Sociální prostřední rodiny, v němž dítě vyrůstá, ovlivňuje základním způsobem jeho postoje ke způsobu života. Kouřící rodiče a nejbližší příbuzní představují nejen zdravotní riziko pro mladého pasivního kuřáka, ale i rizikový model pro jeho budoucí chování. Zahraniční studie i výsledky českého programu „Normální je nekouřit“ popisují neúspěšné působení výchovy ke zdraví u dětí z kuřáckých rodin. Většina dětí mladších 9 let, které už zkusily kuřit, získala první cigaretu od kouřících příbuzných. Časný začátek kouření zvyšuje riziko rychlého vzniku závislosti. Nejdůležitějším úkolem proto je zvýšit zájem rodičů o jejich aktivní účast na školních programech výchovy ke zdraví.

**Klíčová slova:** kouření dětí, vliv rodiny, výchova ke zdraví