

## **PEER EDUCATION OF TOBACCO ISSUES IN HUNGARIAN COMMUNITIES OF ROMA AND SOCIALLY DISADVANTAGED CHILDREN**

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### **Summary**

**Objective:** The aim of this demonstration program was to examine the effectiveness of peer education in disseminating tobacco related information and influencing knowledge, attitudes and beliefs related to smoking in socially disadvantaged youth communities.

**Method:** Peer educators were trained to become messengers of tobacco issues. Intervention sites were selected. Self-administered questionnaires were used to assess the effectiveness of interventions. Recommendations were drawn up on the inclusion of peer conducted health education into the comprehensive program of the Ministry of Health to improve the health situation of Roma (Gypsy) and disadvantaged population groups.

**Results:** Peer educators were recognised as trustworthy mediators of tobacco related information. Interventions resulted in an improved level of knowledge of and changes in attitudes towards smoking in the targeted youth communities.

**Conclusions:** The program demonstrated that peer education is an effective tool to raise awareness on smoking issues in communities of Roma and disadvantaged children, when multiple socio-cultural-environmental factors facilitate the taking up of unhealthy habits. If disseminated, this tool could be effective in helping reduce teenage smoking in these communities.

**Keywords:** peer education, Roma and socially disadvantaged children, tobacco.

## Background

Smoking is the most important public health issue in Hungary. About 3.5 million (out of a population of 10 million) Hungarians smoke, while the economical burden related to tobacco use is as high as 360-370 billion HUF (about 1,7-1,8 billion USD) per year<sup>1</sup>; this habit is responsible for about 30,000 death per year.

A 23.8% increase in smoking prevalence among secondary school students aged 15-18 could be observed between 1995-1999<sup>2</sup>. In addition, the tendency of taking up the habit at an earlier age accelerated in the last few years. The situation is even worst among Romas, the largest ethnic minority in Hungary (about 4.2-4.7% of the population<sup>3</sup>). There are studies suggesting that life expectancy at birth of Romas is about ten years less than the Hungarian average<sup>3,4,5,6</sup>. This can be attributed to the addition of several factors, including low education, poor economical status, high unemployment rates and a traditionally higher prevalence of health damaging behaviours (smoking, drinking, unhealthy diet, lack of exercise) in Roma families. Accordantly, previous experience shows that Roma children and youngsters smoke more and their level of knowledge on the harmful effects of smoking is also lower<sup>7</sup>. While the overall effect of school-based smoking prevention interventions is consistently modest<sup>8,9</sup>, experience also shows better results with the use of peer educators<sup>10</sup> and with those interventions, which also address social challenges faced by low income and ethnic adolescents<sup>11</sup>.

## Subjects and methods

A demonstration project was set up to test the efficiency of peer education in influencing knowledge, attitudes and beliefs related to smoking in 12-16 year old Roma and socially disadvantaged children and teenagers.

Eight students aged 15-19 were trained to become peer educators; six of them were Romas. Topics of the training included different aspects of smoking (financial issues, advertising, legislative measures, community-based interventions); special emphasis was given to their provision with practical skills on how to approach and influence members of the target group. The "Chance for Romas" secondary school in the town of Szolnok and the primary school of the village of Zalakomár were selected as the two intervention sites. A panel of Hungarian experts on Roma issues did the selection based on the following criteria: availability of schools where mainly Roma and disadvantaged children were educated, accessibility of localities and the residence of peer educators. Two intervention classes were selected in both Szolnok (Year 9) and Zalakomár (Year 7). According to the low number of classes with children of targeted age, intervention classes were not randomly chosen; the teaching staff had chosen them.

The intervention consisted of six consecutive lectures, at a frequency of one lecture/week. Instead of academic lectures, peer educators led discussions, situation-playing games and contests. Participants were not exposed to other tobacco control programs during the intervention. There were no national or local anti-smoking campaigns, interventions, and events implemented in that period in the intervention sites.

Baseline and monitoring surveys were conducted to assess the impact of the interventions.

The remaining classes with the same age group pupils from the schools in Szolnok and Zalakomár were automatically considered as controls during these surveys. Additional control classes were chosen in the "Gandhi secondary school" in the city of Pécs and in the

elementary school of the village of Csapi, respectively. The age and ethnicity composition of control classes was similar to that of intervention classes’.

## Results

School principals and teachers generally welcomed the project. Interventions were well received also by the target audience. The already mentioned two surveys were performed to assess the changes, which expectedly could be attributable to the interventions. A total of 174 students (55.5% boys), 56 from intervention classes and 118 from control classes completed the self-administered questionnaire of 29 questions during the baseline data collection. The range of questions covered determinants of smoking, its impact on health, passive smoking, and knowledge of anti-smoking interventions/measures. The median age of respondents was 15.2 years. 60 students (34.5%) were smokers, 52 (29.9%) smoked daily. The proportion of daily smokers was higher among boys (34, 35.4%) than among girls (18, 23.4%). 19 students (10.9%) categorised themselves as “who already gave up”. These figures do not differ significantly from the Hungarian average<sup>2</sup>. However, prevalence data show differences in the intervention sites. The percentage of regular smokers in Szolnok was 49.3% (35 students), while very few students smoked in Zalakomár and Csapi (2 and 7, respectively). This can be explained with the differences in the types of educational institutions (secondary vs. primary school, the latter being a boarding school, with stricter “rules of the house”) and the median age of pupils (16.5 years in Szolnok; 13.6 and 14.5 years in Zalakomár and Csapi, respectively). Daily smokers light an average of 81.5, while occasional smokers 36.1 cigarettes a week. Bad examples of adults and peers who smoke were found the most important determinants of children smoking.

Only a few students stressed the possible role of peer educators in disseminating health-related information. Peer educators were ranked only fifth on a list of trustworthy mediators; doctors, parents, friends and other health professionals preceded them.

After the intervention a monitoring survey has been conducted; a total of 138 students, 50 from intervention classes and 88 controls were asked to complete a questionnaire of 30 questions. Some questions used in the baseline questionnaire were repeated. Others recalled the information provided by peer educators during the courses. The median age of the sample was 15.5 years. 53.6% of children were boys. 40 students (29%) in this sample were regular or occasional smokers.

46 students (92%) said the meetings were useful and informative. 32 students (65%) knew the slogan of the program. More than half of them talked about what they heard during the lessons to their family members and friends. The judgement of peer educators was unanimously positive. Students of intervention classes seemed to accept peer educators as trustworthy mediators of tobacco issues. Educators advanced to the third position (preceded only by friends and parents, in advance of school-doctors, teachers and home nurses) from the fifth by the end of the program on the list of trustworthy mediators, while they remained on the fifth place in control classes.

Out of 50 students of intervention classes 13 smoked. Six of them decided to quit within a year as a result of the intervention. In addition, 7 students who participated at the meetings have smoked less, have smoked only in certain places or have not smoke in the presence of others. The majority of students (86%) participating in the activities would definitely advise others not to smoke.

27 students (57.4% of the intervention group) said that after the meetings they have been more concerned about passive smoking and 24 said that they have been more careful and choose not to go to smoky places. Children from intervention recognised smoking as being a more important factor having an impact on health than did their fellows.

Positive changes could be observed on the knowledge of addictiveness of smoking and its impact on health. 81% of students recognised nicotine as the addictive substance in cigarettes, while only 69.7% did it in control classes. The number of students undecided in linking tobacco to different health conditions decreased substantially. The table shows the changes in knowledge on the relationship between smoking and health conditions.

Tobacco advertising and black market were two well-received topics. As a consequence, a more pronounced understanding on the manipulative effect of cigarette advertisements was detected in the intervention group.

The opinion of the public on planned tobacco control measures is important argument for tobacco control advocates. We asked children on their opinion on which measures would be the most effective in controlling smoking. Respondents were especially supportive of public information campaigns and a ban of promotion of tobacco products.

**Table: Changes in the knowledge of the harmful effects of smoking**

It is more typical of a smoker than of a non-smoker that...	BASELINE SURVEY INTERVENTION GROUP NR OF YES/PERCENTAGE			MONITORING SURVEY INTERVENTION GROUP NR OF YES/PERCENTAGE			CHANGES IN KNOWLEDGE*		
	Agrees	Does not agree	Doesn't know	Agrees	Does not agree	Doesn't know	Agrees	Does not agree	Doesn't know
(s)he is out of breath	26 46.4%	7 12.5%	23 41.1%	31 62.0%	5 10.0%	14 28.0%	+15.6	-2.5	-13.1
(s)he contacts respiratory disease easier	43 76.8%	6 10.7%	7 12.5%	42 84.0%	2 4.0%	6 12.0%	+7.2	-6.7	-0.5
(s)he coughs more	47 83.9%	6 10.7%	3 5.4%	42 84.0%	2 4.0%	6 12.0%	+0.1	-6.7	+6.6
(s)he develops heart disease	25 44.6%	13 23.2%	18 32.2%	28 56.0%	5 10.0%	17 34.0%	+11.4	-13.2	+1.8
(s)he gets lung cancer	43 76.8%	6 10.7%	7 12.5%	43 86.0%	3 6.0%	4 8.0%	+9.2	-4.7	-4.5
(s)he gets gastric ulcer	12 21.4%	15 26.8%	29 51.8%	15 30.0%	11 22.0%	24 48.0%	+8.6	-4.8	-3.8
his/her breath is bad	51 91.1%	3 5.4%	2 3.5%	44 88.0%	4 8.0%	2 4.0%	-3.1	+2.6	+0.5
his/her teeth go bad	37 66.1%	10 17.8%	9 16.1%	39 78.0%	3 6.0%	8 16.0%	+11.9	-11.8	-0.1

\*All the changes given in percentage

## Discussion

There are only a few sociological studies showing the health status of the Hungarian Roma minority worse than the Hungarian average. No single factor determines patterns of tobacco use among Hungarian Roma communities, including young population groups. Both the culturally explainable higher prevalence of health damaging behaviours, as well as lower education and employment levels and socio-economic conditions contribute to this inequity. In addition, special consideration should be given to Roma children because of the more prevalent unfavourable personal examples in families and peer pressure groups.

This project was the first one in Hungary designed to test the impact of peer education on the knowledge and attitudes towards smoking in Roma and socially disadvantaged schoolchildren. Indeed, no health education interventions took place by the time being in the schools selected for interventions in this project. No interventions were planned, however, for teachers and for family members in this program. Taking into consideration the international experience<sup>12</sup>, this could be considered a limitation of the project. To test a more comprehensive intervention (with pronounced involvement of parents and teachers) could be the next step in trying to increase the efficiency of interventions targeted to Roma children. Peer education is a traditional tool in reaching adolescents in Hungary. However, this is the first time ever here, when Roma peer educators were asked to be messengers of health related information in their communities. The common culture and language, the deep knowledge of the real situation and problems of the Roma minority were helpful for our peer educators to choose the best ways on how to address health problems of members of this community.

The overall impact of the intervention is promising. Some limitations in the interpretability of the data gathered need to be mentioned, however. Conditions given at the intervention sites (limited number of age groups, classes and students) resulted in the impossibility to choose randomly intervention groups, therefore the design of the study is quasi-experimental. In addition, the number of students included in the surveys is small, but even so some tendencies in changes of knowledge and attitudes could be recognized. The percentage of Roma students and the family background of other students were similar in every class. It is important to know that Hungarian laws forbid data collection based on ethnicity. As a consequence our data refers to a mixed sample of underprivileged children, including Romas. We only know that the percentage of Roma children in our samples is about 60% according to deep interviews made with members of school management and teaching staff, and also of the panel of experts, which helped to design the program. The remaining 40% came from deprived families (large and poor families, unemployed or low social class parents, living under the Hungarian minim living standards, etc.).

The intervention is successful in raising awareness on various smoking related issues and in changing attitudes and beliefs or even behaviours related to smoking. It is also important that, by the end of the lessons, children became more supportive to and understood better the real aims of tobacco control measures, including regulatory and legal measures. This could be of critical importance in the acceptance of and the compliance with these measures.

Our experience shows that changes in knowledge, attitudes and beliefs on tobacco-related issues can be effectively used as targets in health education programs. Designation of targets helps the evaluation and assessment of interventions and also contributes to better feedback to change the initial plans to have a better impact on the health status of target groups<sup>11</sup>.

Increase of knowledge and changes in attitudes could be used as milestones/intermediate targets in programs having epidemiological changes as main targets. In the case of tobacco, knowledge, attitudes and beliefs change faster than behaviours; in addition, attitudes and beliefs of the public is an important argument when lobbying for stricter tobacco control

measures. Further research is needed, however, to establish the relationship between and the predictive value of changes in awareness and attitudes, when targeting the overall health status of the population or of a special population group.

The original design (lengthiness or course and frequency of lessons) seemed to result in improved knowledge levels and changed attitudes. However, to achieve behavioural change longer interventions are needed or more sessions to be repeated during a given school year. For school-based interventions to be effective, they need to be sustained for several years consecutively<sup>8</sup>.

Peer education is a traditional tool to improve knowledge on different health issues in Hungary. Peer educator groups aimed at disseminating health related information (on HIV/AIDS) were first organised in 1989, while school-based education on tobacco issues started in 1993. However, no minority secondary school students were used as peer educators to reach Roma communities so far in Hungary.

By the end of our intervention, peer educators have been recognised as trustworthy mediators of smoking related information and as successful facilitators for the development of refusal skills needed to prevent peer pressure acting for taking up smoking. Our experience supports the recommendation of the WHO on the increasing role of peer-led anti-smoking sessions in school-based educational campaigns<sup>13</sup>.

## **Conclusion**

The program showed that a methodology based on information transfer provided by trained peer educators seem to work effectively in communities of Hungarian Roma and disadvantaged children. Therefore, the countrywide dissemination is advisable, along with a further development of the program design to ensure the involvement of both teachers/school staff and parents. The methodology could well fit into an overall health development strategy targeted at Hungarian Roma minority.

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