

# TRANSLATION AND ADAPTATION OF COMPUTER ASSISTED SMOKING PREVENTION PROGRAM IN ROMANIA (ASPIRA)

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**Keywords:** smoking prevention, ASPIRA online program, pilot study  
**Abstract:** ASPIRA smoking prevention online program consists of studying five modules that include tests, videos and interactive games. It was tested on a group of schoolchildren and students from Tîrgu Mureș by filling out a questionnaire with reference to the opinions of the young people and the functionality of the software. The vast majority of those questioned reported a good or very good impression about the ASPIRA program and believed that the information presented was suitable. High school pupils and boys were more critical.

## INTRODUCTION

Although the harmful effects of smoking are well-known, smoking in Europe reaches around two thousand cigarettes/ person/ year, while statistics are unfavourable for women and youth.(1,2)

The Global Youth Tobacco Survey (GYTS) study was conducted in Romania in 2004 and 2009 and in other states of the European Union.(3) The international study was conducted on children and young people. A recent local study shows that the mean age at which smoking is experimented is 11.7 years.(4)

Educational institutions offer the most promising framework for measures to prevent and stop smoking in young age groups. Due to the lifestyle of young people, taking into account the changes in the ways of communication, based on the existing technical and information equipment in schools, computer-assisted software has become increasingly popular.

Recently, different types of online smoking prevention software have appeared which can be translated and applied.(5) However, the design of such software requires the involvement of a multidisciplinary team.(6)

Computer-assisted preventive software has the following advantages: it can reach more people, it provides a relative anonymity, individual information is submitted, and costs are relatively low compared with efficiency. The appearance of similar types of software can be seen in various medical fields.(7,8)

## PURPOSE

In October 2012, The University of Medicine and Pharmacy of Tîrgu-Mureș in cooperation with Davidson University in the United States launched a project entitled "Developing research capacity in the field of smoking in Romania", funded by the Fogarty Foundation and National Institutes of Health, research project number R01TW009280.(9)

Using the ASPIRA online software, a subproject aims at investigating smoking in 9<sup>th</sup> graders attending high schools in Tîrgu-Mureș. This paper presents the results and conclusions of the pilot test.

## MATERIALS AND METHODS

The school Action Software to Prevent Interactive

Smoking in Romania (ASPIRA) was done in Romania and Hungary by a whole team of researchers, programming experts, translators, and technicians. The adaptation was based on the software developed by a team of specialists at MD Anderson Cancer Center, Houston, USA (10,11), according to the protocol of cooperation signed between the two parties. After an activity of nearly two years, multimedia (video, animations, interactive educational games) were translated and adapted to local cultural requirements, and were given controlled access on the website: <http://aspira.umftgm.ro>.

It is the first implemented computer-assisted methodology providing a wide target audience, and attractive content and format to students familiar with information and communication technology.

Before conducting the research and before completing the five modules which include tests, videos, and interactive games, ASPIRA was studied by researchers and experts, the proposed amendments being considered in order to finalize the software. A pilot test followed which surveyed a group of students: 84 girls and 36 boys, and 32 pupils and 88 medical students. The participants filled out a questionnaire with reference to the views of young people, the operability of the software, and perception of barriers of language and culture. The ratios were calculated and graphs were created in Open Office Calc version 4.1.1.

## RESULTS

The vast majority of the respondents (90.8%) had a good or very good opinion about ASPIRA. Depending on the school and gender, the general impression was less favourable in high school pupils and in boys: 15.6-16.6% with an average opinion (figure no. 1).

The analysis of the special feeling of the respondents revealed that 85.8% were satisfied with the videos, 84.2% with the interactive tests, and 80% with the interactive games, 15.8% of these reporting that they did not realize what they were supposed to do. Almost every fourth person found that there were some parts which seemed too long (23.3%).

It appears that to a little extent, the understanding of the messages was hampered by the fact that the people in the videos speak English: 15.8% partially, and 7.5% much and very

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much. Half of the young people (50.8%) felt that the translation and subtitles in their mother tongue helped very much or much better to understand the message, while every fourth person stated that they did not need a translation (25.8%). The vast majority (82.9%) of the subjects felt the pace/ speed of the display of subtitles was right, they could follow the text effortlessly. Only a small proportion of subjects could not follow the full captions despite their extra effort.

As far as barriers of language and culture are concerned, the best divided answers were to the question: To what extent would replacing persons and characters speaking in English with characters who speak Romanian/ Hungarian make the program easier to follow? About a third of the respondents thought that replacing foreign characters with local ones would greatly facilitate understanding the program, one third thought that it would partially facilitate its understanding, and a third that it would facilitate understanding to a little or very little extent (figure no. 2).

Figure no. 1. Overall impression about ASPIRA software according to gender and school

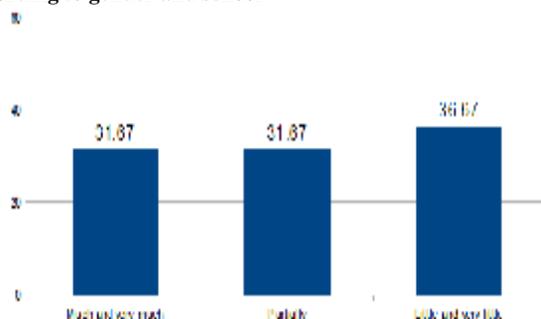
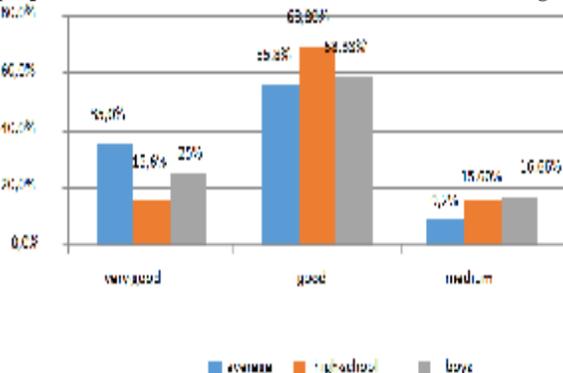


Figure no. 2. Opinions about replacing English-speaking people and characters in order to facilitate understanding



Only 7.5% of those participating in the pilot test of ASPIRA noted items that did not fit the culture and mentality of our country. Some said that “Young people in America are more direct and have other perceptions, thus they are not representative of the situation in our country.”

Two thirds (65.2%) considered that the information provided was suitable for 9<sup>th</sup> grade pupils, maintaining their attention and interest. While watching, 12.5% observed some technical errors or functionality problems. The majority (56.6%) believed that offering some raffle prizes would greatly motivate students to participate more seriously.

DISCUSSIONS

Nowadays, antismoking policy puts great emphasis on

smoking prevention.(12,13) One important strategic priority is reducing smoking among young people.(14,15)

As English seems to be a language spoken by many adolescents and young people both globally and in the Romanian society, new perspectives for preventing open up in the future.(16)

Simultaneously, experiences of computer-assisted software are growing.(17) As difficulties in understanding messages in English decrease and as young people have increasingly wider access to the Internet, cultural differences become less important mentality.

If the conditions are ensured, various computer-assisted software developed by other researchers may be applicable to local conditions by adapting their translation. There is a wide range between testing and retesting of a questionnaire used to track smoking habits and attitudes and the adaptation of online software to prevent smoking.(11,18)

Pilot testing and consideration of the views of the interviewees is absolutely necessary in such situations.

CONCLUSIONS

Nowadays, the focus is on the prevention of smoking and smoking cessation, which justifies the expansion and acceleration of research, prevention, and control on smoking.

Among the methods applied in the future, an increasing importance will be played by computer-assisted software for preventing smoking and smoking cessation.

The expressed opinions show that the vast majority of the young people interviewed have a good or very good impression about the ASPIRA online software, and for the majority of participants in the pilot test the language and cultural barrier was not an important obstacle in understanding the messages transmitted by the tested software.

We can conclude that high school pupils and the boys were more critical, freely expressing opinions about the software. The findings and suggestions were considered by the researchers with a view to improving and completing the ASPIRA online software.

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