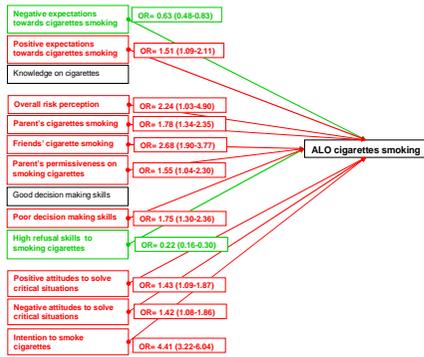


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Background: The EU-Dap project was funded in 2002 by the European Commission in order to assess the effectiveness of a novel school-based prevention program based on a Comprehensive Social Influence approach. This paper summarizes the results from the multicenter cluster randomized trial designed to evaluate the behavioural changes associated to the curriculum, and present a preliminary identification of potential mediators of effects.

Figure 1. Relationship among baseline intermediate variables (November 2004) and behavioural outcomes at first follow-up (May 2005). The EU-Dap study: control pupils, non smokers at baseline (n=2586).



Results: The program was effective in preventing daily smoking, drunkenness episodes and cannabis use at the post-test. At the 15-month follow-up the effect on cigarettes use was lost while the effects on drunkenness and cannabis were maintained (Table 1). Among factors related with substance use among control pupils (see figures), expectations towards tobacco, alcohol and drugs use, attitudes towards drugs use and refusal skills are significantly changed by exposure to the program.

Figure 2. Relationship among baseline intermediate variables (November 2004) and behavioural outcomes at first follow-up (May 2005). The EU-Dap study: control pupils, no drunkenness episodes at baseline (n=2902).

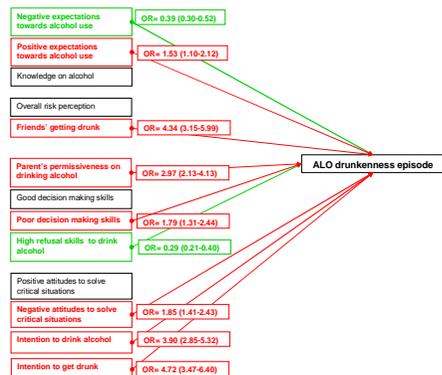


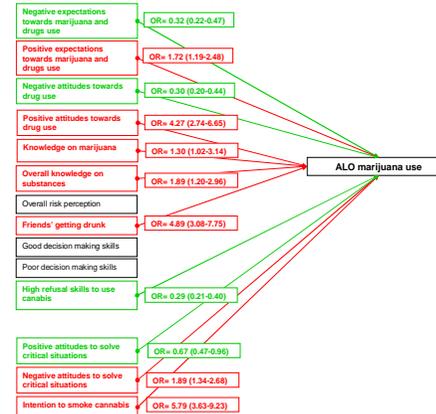
Table 1. Adjusted Prevalence Odds Ratios (POR) and 95% Confidence Interval (CI) of substances use outcomes, 3 and 15 months follow-ups vs baseline (n=6370), intervention vs control pupils.

Intermediate outcome	Adjusted POR (95%CI) 3 months	Adjusted POR (95%CI) 15 months
ALO smoking	0.88 (0.71-1.08)	0.94 (0.80-1.11)
Regular smoking	0.86 (0.67-1.10)	0.89 (0.72-1.09)
Daily smoking	0.70 (0.52-0.94)	0.92 (0.73-1.16)
Alo drunkenness	0.72 (0.58-0.90)	0.80 (0.67-0.97)
Regular drunkenness	0.69 (0.48-0.99)	0.62 (0.47-0.81)
ALO cannabis	0.77 (0.60-1.00)	0.83 (0.65-1.05)
Regular cannabis	0.76 (0.53-1.09)	0.74 (0.53-1.01)
ALO drugs	0.89 (0.69-1.15)	0.85 (0.69-1.05)

Table 2. Adjusted Prevalence Odds Ratios (POR) and 95% Confidence Interval (CI) of intermediate outcomes, 1st follow-up vs baseline (n=6370), intervention vs control pupils at 3 months.

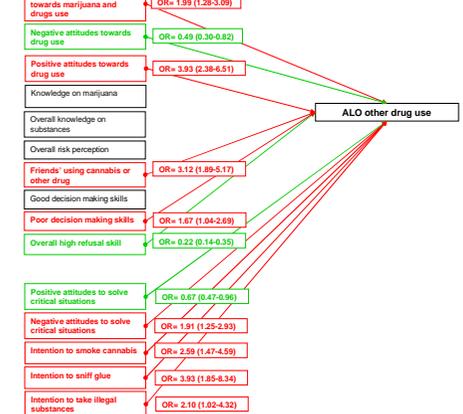
Intermediate outcome	Adjusted POR (95%CI) 3 months
Expectations vs tobacco	
to smoke cigarettes	0.85 (0.73-0.99)
to get drunk	0.96 (0.81-1.13)
to smoke cannabis	0.89 (0.72-1.10)
to take illegal substance	0.85 (0.67-1.08)
Expectations vs tobacco	
negative expectation	1.06 (0.94-1.20)
positive expectation	0.80 (0.72-0.92)
Expectations vs alcohol	
negative expectation	1.08 (0.94-1.24)
positive expectation	0.83 (0.72-0.96)
Expectations vs drug	
negative expectation	1.18 (0.99-1.41)
positive expectation	0.83 (0.72-0.94)
Overall risk perception	1.12 (0.80-1.59)
Decision making skill (poor)	0.98 (0.88-1.09)
Refusal skill (high)	
on cannabis use	1.09 (0.92-1.30)
on cigarettes smoking	1.18 (1.01-1.38)
on alcohol consumption	1.18 (1.03-1.36)
overall	1.21 (1.02-1.44)
Attitudes on assertiveness in critical situations	
good attitudes	1.00 (0.88-1.13)
bad attitudes	0.98 (0.66-1.12)

Figure 3. Relationship among baseline intermediate variables (November 2004) and behavioural outcomes at first follow-up (May 2005). The EU-Dap study: control pupils, non users at baseline (n=3021).



Methods: The "Unplugged" program consisted of 12 one-hour sessions delivered by class teachers to 12-14 years old students in seven European countries during the school year 2004-2005. Schools (n=170) were randomised to three intervention arms and a usual curriculum control arm. A pre-test survey was conducted before the implementation of the program (n=7079), and two follow-up surveys were conducted 3 and 15 months after the end of the intervention. A Multilevel Regression model was used to evaluate the effect of the program on substance use prevalence and on possible mediators, identified as factors related with substance use among controls pupils (see figures).

Figure 4. Relationship among baseline intermediate variables (November 2004) and behavioural outcomes at first follow-up (May 2005). The EU-Dap study: control pupils, non users at baseline (n=3072).



Conclusions: The EU-Dap study shows that the Unplugged program is effective in preventing tobacco, alcohol and cannabis use. The preliminary analyses of mechanisms of effect suggest that the program works reducing expectations towards drugs and increasing refusal skills.