**Programme name:** European Drug Abuse Prevention (EU-DAP) trial

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**Programme description, aims and objectives:**
EU-DAP is a school-based project designed to prevent adolescents’ misuse of legal and illegal substances. Unplugged is a program based on the development of life skills, adopting the more effective teaching techniques to involve students in an interactive curriculum designed to improve and develop life skills.

The intervention consisted of 12 one-hour lessons, based on a comprehensive social influence model. There were sessions on normative education and information on the effects of smoking and drug use. Interactive teaching techniques were used, with the focus on developing better interpersonal and intrapersonal skills. In a third of the intervention schools, the curriculum was complemented with seminars for parents; in another third, there was additional class-peer involvement.

**Target population:**
Adolescents in European countries between the ages of 12 and 14.

**Expected outcomes:**
Reduced use of alcohol, tobacco, cannabis and other drugs.

**Study reference:**


Related studies:

Study details:
A number of related studies have evaluated the effectiveness of this programme. All the studies are based on one random control trial. The trial took place in school year 2004-05, when schools were randomly assigned to either the control group or the treatment of EU-DAP intervention.

The studies examined the effectiveness of EU-DAP in preventing the use of tobacco, alcohol and drugs.

Information on substance use and personal and social skills was obtained by self-completed questionnaire both before the intervention and 6 months later (3 months after the intervention ended) and 18 months later. Seven outcome variables were investigated, all of them with reference to the 30 days preceding the survey: (i) any cigarette smoking; (ii) frequent cigarette smoking, defined as smoking six or more cigarettes per month; (iii) daily cigarette smoking, defined as smoking 20 or more cigarettes per month; (iv) any episode of drunkenness; (v) frequent drunkenness, defined as three or more episodes; (vi) any cannabis use; (vii) frequent cannabis use, defined as use on three occasions or more.

Study sample:
3547 students in 78 intervention schools and 3532 in 65 control schools in 7 European countries, after some schools withdrew participation before the start of the programme. All students aged 12 to 14. The students were instructed to generate individual anonymous code by themselves, which were then used to match individuals before and after the intervention. Mismatches reduced the final sample to 5541 students for the papers that evaluate longer-term impact.

Methodology:
Schools were randomly selected into control or treatment groups. The idea is to statistically compare the changes in substance use before and after the intervention for the treatment group with the changes observed for the control group. The association between intervention and changes in the outcomes of interest was expressed as prevalence odds ratio (POR), estimated by a 3-level mixed regression model. This accounted for the hierarchical structure of the data with students (level 1) nested within classrooms (level 2), which in turn were nested within centres (level 3). Robustness checks were conducted based on different assumptions on the missing data.

Results and impact:
There are 4 studies evaluating this programme. The impact of the programme varies by sub-group and in the short and long run. The results from each study are detailed below.

2008 study
This initial study considered the effect of the programme on short run outcomes (3 months after the end of the programme). The study found that the programme had a statistically significant negative effect on
students’ daily use of cigarettes, their likelihood of drinking and their frequency of drinking in the past 30 days. The programme was found to have a marginally statistically significant negative impact on Cannabis use. The results for other outcomes were not significant, but point in the same direction. The magnitude of the effects suggest that this programme is on a par with the most effective of all school-based programs that have undergone peer reviewed evaluation.

In addition, the curriculum was found to be particularly successful in preventing baseline non-smokers or sporadic smokers from moving onto daily smoking. But it was not effective in helping baseline daily smokers to reduce or stop smoking.

2009 study

This study assessed the different impacts of the programme on boys and girls, 3 months after the end of the programme.

The intervention significantly reduced the risk of substance use for boys. For girls, the programme was associated with a decreased risk of frequent drunkenness in the past 30 days, but the estimate was not statistically significant.

There were also gender differences in the impact of the programme on the transitions between different levels of substance use before and after the intervention. Compared to the control group, fewer boys in the treatment group progressed to more advanced stages of smoking and more boys regressed to less frequent use of substance. A similar but less pronounced pattern was observed for girls. There was no significant association between the impact of the intervention and reported self-esteem.

Overall, the intervention effectively reduced substance use among boys, but not girls.

2010 study

This study evaluated the longer run impact of the programme. At the 18-month follow-up, the programme was no longer found to decrease cigarette smoking. The programme was however, found to decrease the risk of drunkenness and of frequent cannabis use. Alternative multilevel models, fitted for purpose of sensitivity analysis, confirmed the findings.

In line with the findings from the 6 month follow-up, in the 18 month follow up students in the intervention group showed a greater tendency to remain non-users of tobacco or to go from occasional to no use. For daily users the programme showed no effects.

2011 study

This study evaluated the longer run impact of the programme, focusing specifically on alcohol use. The program reduced the risk of a student reporting alcohol-related problems. The estimated relative reduction compared with the control group was about 22% and the absolute risk reduction was 1.9%. This reduction in risk was not statistically significant however, for those who were already drinkers. The frequency of alcohol consumption was not reduced by the program. Non-drinkers and occasional drinkers in the programme progressed toward frequent drinking less often than those who did not go through the programme.

Impact grade: 2
Costs: estimated €200 per class, including teachers' training and materials.

Quality of evaluation evidence:

This was a randomised controlled trial. Evidence from a randomised control trial is very high quality and likely to tell us what the causal impact of the programme was. The only caveat is that there might be attrition bias. Some schools were selected for the intervention but didn’t participate throughout and were dropped from the sample. If schools dropped out because they perceived the intervention to be ineffective, then comparing the remaining ones with the control group might overstate the effectiveness of the programme. Moreover, the imperfect linkage of individuals through the self-generated anonymous code meant that some individuals are dropped from the sample. If this attrition was related to the effects of the intervention, then the estimates would be biased. Sensitivity analysis did not however, suggest that individuals leaving the trial had introduced important biases.

Quality of evidence grade: 6
Appendix: details of impact grades and quality of evidence grades are set out below

<table>
<thead>
<tr>
<th>Impact grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (none)</td>
<td>No relationship between the youth service and the outcome in question.</td>
</tr>
<tr>
<td>1 (low)</td>
<td>Provision of the youth service may be positively related to one but not all outcomes or just for sub-groups of the target population.</td>
</tr>
<tr>
<td>2 (medium)</td>
<td>The youth service has moderate impact on all outcomes and sub-groups or high impact on some outcomes and sub-groups.</td>
</tr>
<tr>
<td>3 (high)</td>
<td>The youth service has high impact on all outcomes and sub-groups.</td>
</tr>
<tr>
<td>Score</td>
<td>Type of study</td>
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<tr>
<td>-------</td>
<td>--------------</td>
</tr>
<tr>
<td>0</td>
<td>Basic</td>
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<tr>
<td>1</td>
<td>Descriptive, anecdotal, expert opinion</td>
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<tr>
<td>2</td>
<td>Study where a statistical relationship (correlation) between the outcome and receiving services is established</td>
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<tr>
<td>3</td>
<td>Study which accounts for when the services were delivered by surveying before and after</td>
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<tr>
<td>4</td>
<td>Study where there is both a before and after evaluation strategy and a clear comparison between groups who do and do not receive the youth services</td>
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<tr>
<td>5</td>
<td>As above but in addition includes statistical modelling to produce better comparison groups and of outcomes to allow for other differences across groups</td>
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<tr>
<td>6</td>
<td>Study where youth services are provided on the basis of individuals being randomly assigned to either the treatment or the control group</td>
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