Overview

Unplugged

Quality level

Quality level: 3

Executive summary

Unplugged is a school-based programme based on the comprehensive social influence approach, targeted to adolescents 12-14 years old and aimed to reduce the initiation, the use and abuse of tobacco, alcohol and illicit drugs. The programme has been evaluated in a large European collaborative randomised controlled trial (EU-Dap), conducted in seven European countries between 2004 and 2007. The effectiveness evaluation showed that the programme is effective at 3 months follow-up in preventing cigarette use, drunkenness episodes and use of cannabis among 12-14 year old students. The effect on drunkenness and cannabis is maintained at a 1 year follow-up.

Type of intervention: prevention
Sub-area: universal
Setting: school
Type of approach: peer
Target group (universal): children/young people
Age group: 12-14 years old
Target group (specific): children/young people
Annual coverage: 7000
Substances addressed: tobacco, cannabis, opiates, alcohol, ecstasy, cocaine and derivatives, amphetamines, methamphetamines, inhalants/solvents
Evaluation type
outcome evaluation (how far are the specific objectives achieved), process evaluation (how far are the operational objectives achieved)

Country
Italy
Start date
01/09/2004
End date
31/05/2007

Overall objective
The Unplugged programme aims to reduce prevalence of tobacco smokers, alcohol abusers and substance users among youth, curbing or delaying initiation and stopping transition from experimental use to addiction.

Abstract
Unplugged is the first school-based prevention programme developed in an international collaboration in Europe and evaluated in a multi-centre cluster randomised controlled trial. It is based on the comprehensive social influence approach, and includes training of personal and social skills with a specific focus on normative beliefs. Unplugged was developed by a European expert group as a standardised package and includes the following components: social skills, personal skills, knowledge and normative education. The core programme consists of 12 1-hour sessions to be delivered weekly by class teachers who previously attended a 3-day training course. It is a strongly interactive programme and follows a standardised package programme. The programme has been evaluated between 2004 and 2007 in the EU-Dap study, a large European collaborative randomised controlled trial, conducted between September 2004 and May 2007 in seven European countries: Austria, Belgium, Germany, Greece, Italy, Spain and Sweden, and involving 143 schools, 345 classes and 7,079 students. The evaluation showed that Unplugged reduced the use of tobacco and cannabis, and the episodes of drunkenness among pupils receiving the programme versus pupils of the usual curriculum control group. At post-test, significant intervention effects were detected for daily use of cigarettes, frequent and sporadic drunkenness episodes and cannabis use. The effect on drunkenness episodes and cannabis use was maintained at 18 months follow-up. In a second phase of the EU-Dap project, the teacher handbook was largely revised, mainly based on teacher feedback information. Moreover, to complement the new teacher’s handbook, a student’s workbook was developed, intended as a personal workbook of the student, and containing activities that students are to work through during the Unplugged units. The cards for lesson 9 have also been revised. A new appealing graphic version was developed, and the new programme, together with the student workbook and the cards, is freely available in the project website (www.eudap.net).

Context and theory
Initial situation

Tobacco, alcohol and substance use are the leading causes of premature morbidity and mortality in developed countries. Since most users start using drugs before adulthood, the best way to reduce the burden of diseases attributable to substance use is primary prevention targeted to children and adolescents, before their beliefs and expectations about substance use are established. Schools offer the most systematic and efficient way of reaching a substantial number of adolescents every year and can adopt and enforce a broad spectrum of educational policies. For these reasons, school-based programmes became quite popular in developed countries in the last decades. However, most school-based prevention programmes were developed and evaluated in the US context. In Europe, the evaluation of the effectiveness of programmes has been quite rare and frequently conducted with flawed methods. Moreover, not all evaluated programmes have been proved to be effective, and there are some suspicions that at least some components can be dangerous, increasing rather than preventing the use of substances. The need for the development and the rigorous evaluation of an European school-based program was the base for the EU-Dap collaborative project.

Basic assumptions/theory

Unplugged is based on Social learning theory, Life skills theory, Health belief model, theory of Reasoned Action-Attitude, and Social norms theory. Social learning theory states that personality forms from interaction between environment, behaviours and an individual’s psychological processes, emphasising the importance of observing and modelling the behaviours, attitudes and emotional reaction of others (Bandura, 1977). Bandura believed that social imitation may induce the acquisition of new behaviours without the necessity of reinforcing successive approximations. The life skills approach, developed by problem behaviour theory (Jessor and Jessor, 1977), proposes that, although behaviour is the result of a complex interaction between personal, social and environmental factors, behaviour essentially results from individuals, who should be targeted by life skills education. The life skills approach is built around creating opportunities for young people to acquire skills that enable them to avoid manipulation by outside influences. It aims to help young people to achieve control over their behaviour while taking informed decisions that can lead to positive behaviour and values (Botvin, 1990). The Health belief model was developed by Rosenstock (1974) and is based on the concept that the perceived risk of disease and the perceived benefits of action to avoid disease are the key factors in motivating a positive health action. So, providing factual information about the negative effects and dangers of drugs will deter use or prevent substance abuse by creating negative attitudes towards drug use. The theory of Reasoned action-attitude was developed by Fishbein and Ajzen (1975) and proposes that an individual’s behavioural intentions have two constituent parts: the individual’s attitude towards the behaviour and the social norms as perceived by the individual. Individuals may weight these differently in assessing their behavioural intentions. Therefore, drug use is a consequence of a rational decision (intention), the belief about this consequence and the social norms towards
drug use. The Social norms theory states that our behaviour is influenced by incorrect perceptions of how other members of our social groups think and act (Perkins and Berkowitz, 1986). The theory predicts that overestimations of problem behaviour will increase these problem behaviours while underestimations of healthy behaviours will discourage individuals from engaging in them, and suggests that peer influences are based more on what we think others believe and do (the ‘perceived norm’) than on their real beliefs and actions (the ‘actual norm’). Following and integrating these theories, the programme includes activities that are expected: (a) to increase the ability to resist social influences leading to substance use (resistance skills); (b) to develop, improve and strengthen a broader spectrum of skills (so-called life skills) such as decision-making, goal setting, stress management, assertiveness, and communication skills; (c) to reduce young people’s beliefs about frequency and acceptance of substance use, as well as about vested interests in their marketing (normative education); (d) and consequently to reduce expectations and positive attitudes towards drugs leading to intention to use.

**Objectives and indicators**

**Process evaluation**

**Operational objectives**

First operational objective — training activities: - International training courses for trainers - National training courses for trainers - National training courses for teachers - Peers recruitment and training - Trainers’ and teachers’ satisfaction with the training courses. Second operational objective — Unplugged implementation: - Implementation of Unplugged units - Implementation of Seminars for parents - Sessions held by peers - Teachers’ and students’ satisfaction with the programme - Parents’ participation to seminars - Trainers’ evaluation of parents seminars. Third operational objective: dissemination - National and international requests for training of trainers - National requests for teachers training - Manuals printed and distributed - Dissemination activities through national seminars - Website updating and website publication of education materials.

**Process indicators**

Number of international training courses held for trainers Number of trainers trained at the international level Number of national training courses held for trainers Number of trainers trained at the national level Number of teachers training courses held at the local level Number of teachers trained at the local level Number of peers recruited and trained Trainers’ rating of training courses Teachers’ rating of training courses

% of classes implementing Unplugged fully and partially % of classes implementing the single units fully and partially Number of parents’...
workshops held at the local level Number of parents attending to the seminars Number of sessions held by peers % of teachers satisfied with the programme % of teachers who perceived improvement of class climate because of Unplugged % of students satisfied with the programme % of students who perceived improvement of relationship with classmates because of Unplugged % of students who perceived improvement of relationship with teachers because of Unplugged % of students who would like to have again a program like Unplugged next year Number of parents attending three, two, or one parents seminar Trainers’ rating of parents seminars

Number of national and international additional training courses held for trainers Number of national requests of training courses for teachers Number of Unplugged manuals printed and distributed Number of schools, classes and students receiving Unplugged Number of seminars held at the national level to present Unplugged Number of new documents added to the website per year

**Instruments used**

**Type of quantitative instrument**

**Type of evaluation carried out**

**Evaluation design**

outcome evaluation (how far are the specific objectives achieved), process evaluation (how far are the operational objectives achieved)

**Specific objectives and outcome indicators**

**Specific objective 1**

— to reduce or delay initiation of cigarette smoking, alcohol abuse, and cannabis or illicit drugs use.

**Outcome indicator 1**

— frequency of students starting smoking since baseline (last 30 days outcome, intervention vs control); — frequency of students having their first drunkenness episode since baseline (last 30 days outcome, intervention vs control); — frequency of students starting cannabis use since baseline (last 30 days outcome, intervention vs control); - prevalence of students smoking cigarettes vs baseline (last 30 days ALO smoking outcome, intervention vs control); - prevalence of students having at least one drunkenness episode vs baseline (last 30 days ALO drunkenness outcome, intervention vs control); - prevalence of students using cannabis vs baseline (last 30 days ALO cannabis outcome, intervention vs control). - prevalence of students using illicit drugs vs baseline (last 30 days ALO illicit drugs outcome, intervention vs control).
Specific objective 2

— to reduce the amount of cigarettes smoked, the frequency of drunkenness episodes, and of cannabis use.

Outcome indicator 2

- prevalence of students smoking at least 6 cigarettes vs baseline (last 30 days regular smoking outcome, intervention vs control); - prevalence of students smoking at least 20 cigarettes vs baseline (last 30 days daily smoking outcome, intervention vs control); - prevalence of students having at least 3 drunkenness episodes vs baseline (last 30 days regular drunkenness outcome, intervention vs control); - prevalence of students using cannabis at least 3 times vs baseline (last 30 days regular cannabis outcome, intervention vs control); - frequency of students reducing smoking since baseline (last 30 days outcome, intervention vs control); - frequency of students reducing drunkenness episodes since baseline (last 30 days outcome, intervention vs control); - frequency of students reducing cannabis use since baseline (last 30 days outcome, intervention vs control).

Specific objective 3

— to improve and strengthen refusal skills, communication and decision-making skills, negative attitudes towards drugs, and risk perception; to reduce intentions to use, positive attitudes and positive expectations towards drugs and perceived use.

Outcome indicator 3

- prevalence of students declaring intentions to use vs baseline (specific outcome, intervention vs control); - prevalence of students with high or low refusal skills, communication skills, decision making skills vs baseline (specific outcomes measured in the questionnaire, intervention vs control); - prevalence of students with positive or negative attitudes towards drugs, expectations towards cigarettes, alcohol and cannabis (specific outcomes measured in the questionnaire, intervention vs control); - prevalence of students with high or low risk perception towards cigarettes, alcohol and cannabis (specific outcomes measured in the questionnaire, intervention vs control); - prevalence of students with high or low perception of cigarette use, drunkenness episodes and cannabis use among friends vs baseline (specific outcome, intervention vs control).

Instruments used

Name of instrument (standardised instrument)

HBSC items ESPAD items questionnaires from evaluation instruments bank on EMCDDA website Brief Family Life Questionnaire
**Name of instrument (modified standardised instrument)**

HBSC items ESPAD items questionnaires from evaluation instruments bank on EMCDDA website

**Type of qualitative instrument**

**Action**

Unplugged consists of 12 units designed to be carried out by teachers, previously trained, within 1 or 2 school lessons. Each unit has a standard structure, which included a time schedule, a rationale (what the lesson is about, why it is important, what evidence is there), objectives, a list of 'hands-on' materials the teacher needs to carry on the unit, a suggested introductory activity, a detailed description of the core activities, and a closure, which often consists of a summary and common evaluation of the lesson. Students can find parallel instructions on their student workbooks. The units and their main objectives are listed in the following paragraphs. Unit 1: Opening Unplugged — Receive an introduction to the programme and the 12 lessons — Set objectives and rules for the lessons — Start reflecting on present or missing knowledge on drugs Unit 2: To be or not to be in a group — Learn to identify how much their behaviour is modified by the group — Experience how it feels to be excluded and reflect on this experience Unit 3: Choices – Alcohol, risk and protection (former Alcohol) — Information on different factors influencing drug use Unit 4: Your beliefs, norms and information — Do they reflect reality? (former Reality check) — Fostering critical evaluation of information, reflection on differences between own opinion and actual data, correction of norms Unit 5: Smoking the cigarette drug — inform yourself (former Smoking the cigarette drug)— Information on effects of smoking, differentiation of expected vs. real effects and short-term vs. long-term effects Unit 6: Express yourself — Adequate communication of emotions, distinguishing between verbal and non-verbal communication Unit 7: Get up, stand up — Fostering assertiveness and respect for others Unit 8: Party tiger — Recognition and appreciation of positive qualities, acceptance of positive feedback, practising and reflection on getting into contact with others Unit 9: Drugs – get informed — Information on positive and negative effects of drug use Unit 10: Coping competences — Expression of negative feelings, coping with weaknesses Unit 11: Problem solving and decision making — Structured problem solving, fostering creative thinking and self control Unit 12: Goal setting and closure — Distinguishing long term and short term objectives, feedback on the programme and the process during the programme In the evaluation phase two more curricula were implemented and evaluated: the parents curriculum and the peer curriculum. The teachers and the selected peers were provided with a manual to help the organisation of the meetings, where practical suggestions were given as to group communication, listening skills, and trigger questions linked to the programme lessons. Teacher training is a crucial component to ensure a high-quality implementation of programmes. In order to implement Unplugged in class, it is therefore required that teachers attend a specific training course. In order to design and
standardise the training components, the EU-Dap Intervention Planning Group (IPG) organised a preliminary international workshop with pedagogues with long practical and educational experience on comprehensive social influence and life skills programs. The IPG developed a 2.5-day training module (20 hours) for the teachers (TOT). During the training, teachers are trained through an experiential method and an interactive approach, the same that they will use in the implementation of Unplugged in class. It is important to use the same activities for teachers as for students, because teachers' experience with activities will help them to understand better students behaviour and difficulties. The TOT also get teachers familiar with the Unplugged units.

Results

Process evaluation

Results

In the first trial, conducted in Italy, Spain, Belgium, Greece, Germany, Austria, and Sweden from 2004 to 2007, 195 teachers from nine country centres participated in the teachers’ training. Among those responding to the process evaluation questionnaire, many teachers were very satisfied about 'trainer' and 'working climate' items (respectively, 84 % and 84.3 % of 150 and 153 teachers). About half of the classes conducted all of the curriculum units, but this proportion varied widely between centres. On average, each curriculum unit was taught to 78 % of the enrolled students’ population. Even when a particular unit was implemented, however, not all activities outlined in the teacher manual were carried out. Some units ('Choices – risk and protection'; 'Your beliefs, norms and information: are they correct?'; 'Coping competencies'; 'Goal setting and closure') were implemented only partially by the overwhelming majority of classes. Parallel with this, the time actually needed to complete each unit exceeded the ‘standard lesson time’ of 50 minutes by approximately 20 %. Of the designated schools, 70 % carried on all seminars for parents and 89 % carried on at least two seminars. However, not all assignments within each seminar were carried out as designed. In particular, role-play was often disregarded, and four centres did not conduct this activity at all. In all centres, a high degree of satisfaction for each implemented activity was reported by the workshops’ leaders. However, parents’ attendance was very low. The average number was 12 parents per seminar on overall, implying that no more than 28 % of the students had a parent participating in any given seminar. Very few classes conducted all peers meetings (8 %), while 71 % did not conduct any meeting at all. The average number of implemented meetings per class was 1.8. The most frequently alleged motives for non-implementation were peers’ withdrawal and low level of interest expressed by the classmates. In the second trial, conducted in Croatia, Lithuania, Romania, Kyrgyzstan and Russia from 2009 to 2011, 138 teachers participating in the teachers’ training implemented Unplugged in the experimental schools. Eighty percent of them provided process evaluation forms: 92 % (or 76 % of the total number of classes) fully
implemented the program, 5% partially and 2% scarcely. 71% of the schools carried out the three seminars for parents, which lasted on average 120 minutes with a mean attendance rate of 15 parents per seminar, with variations among the countries: only 3 parents attended the seminars on Lithuania, 10 in Croatia, but 15 in Kyrgyzstan, 17 in Romania and 20 in Russia. In this study, forms assessing teachers’ and students’ satisfaction with Unplugged were provided: 87% of teachers providing satisfaction forms (or 55% of the total number) declared to be very satisfied with the program, 90% perceived improvement of teaching skills, 80% better relationship with students and 77% improvement of group climate. The large majority (95%) considered useful or very useful the training course. About 48% of students provided forms about satisfaction with Unplugged (Russia did not provide satisfaction questionnaires for students); 70% of students providing the questionnaire were highly satisfied with the program; 62% declared Unplugged useful for choices and 80% perceived an improvement of knowledge; 43% perceived improvement of the relationships with the classmates, and 45% perceived improvement of the relationships with the teachers. Finally, 66% of students providing satisfaction questionnaire declared they would like to have a programme like Unplugged again the next year.

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BMC Public Health 2011; 11: 312

Contact

Responsible organisation
ASL TO 3, Epidemiology Unit (Full legal name: ASL T03 — SC
a DU Servizio sovrazonale di Epidemiologia)

Name of organisation
ASL TO 3, Epidemiology Unit (Full legal name: ASL T03 — SC
a DU Servizio sovrazonale di Epidemiologia)

Street address
Via Sabaudia, 164

Postal code
10095

City
Grugliasco — Turin

Country
Italy

Website
www.eudap.net

Email
eudap@oed.piemonte.it

Partner organisation(s)
Wien — Austria, Institute for Social and Healthpsychology/Institut für Sozial und Gesundheitspsychologie (ISG)
Gent — Belgium, De Sleutel Institute Kiel — Germany, IFT-Nord/Institute for Therapy and Health Research Thessaloniki — Greece, Pyxida L’Aquila — Italy, Dept of Internal Medicine and Public Health/University of L’Aquila Novara — Italy, Dept of Clinical and Experimental Medicine/Avogadro University Bilbao — Spain, Edex/Community Resources Centre Stockholm — Sweden, Department of Public Health Sciences and School of Public Health, Karolinska Institutet Prague — Czech Republic, Centre for Addictology Poznan — Poland, Department of
Toxicology/Poznan University of Medical Sciences Zagreb — Croatia, Faculty of Education and Rehabilitation Sciences/University of Zagreb Bishkek — Kyrgyzstan, White Crane Vilnius — Lithuania, Mentor Lithuania Bucharest — Romania, National Anti-Drug Agency/Ministry of Administration and Interior Saint-Petersburg — Russian Federation, Institute of Special Education and Special Psychology/Raoul Wallenberg International University for Family and Child Grosuplje — Slovenia, UTRIP Institute/institute for Research and Development

**Contact**

Fabrizio Faggiano Federica Vigna-Taglianti Barbara Zunino Serena Vadrucci

**Name of contact**

Fabrizio Faggiano Federica Vigna-Taglianti Barbara Zunino Serena Vadrucci

**Email**

fabrizio.faggiano@med.unipmn.it federica.vignataglianti@oed.piemonte.it barbara.zunino@oed.piemonte.it serena.vadrucci@oed.piemonte.it

**Phone**


**Fax**

+39 011/40188301

**Additional information**

In each country, participating in the project, a minimum of 2 Unplugged trainers are involved in the intervention. At least 2 to 6 other professionals are involved in the organisation of the intervention, in the administrative management, and in the scientific evaluation including data collection, monitoring, data management, data analysis, reporting. More than 35 people participated in carrying out the EU-Dap study 1 and 2. During the replication and dissemination phase, (ongoing) new Unplugged trainers and evaluators have joined the project. At the end of December 2011, the number of trainers trained in the international training courses (called 'master trainers') and responsible for national training courses was 32, from 15 countries. More information is available on the EU-Dap website (www.eudap.net), and on the EU-Dap Faculty website (www.eudapfaculty.net).
The EU-Dap working group is multi-professional: epidemiologists, statisticians, psychologists, trainers, health promotion professionals, administrative staff, public health professionals, data managers, data analysts.

Both internal and external evaluators were involved in the project.

Name of external institution(s)
- Reviewers of EC funding schemes

Full reference to evaluation report
- EU-Dap 1 Final Report 2: Results of the evaluation of a school-based programme for the prevention of substance use among adolescents. Available at http://www.eudap.net/Research_Pubblications.aspx
**Budget**

- **Annual budget**: Annual budget is not available
- **Sources of funding**: Local authorities, European commission, Regional authorities, Non-governmental organisation
- **Percentage from each source**: Local authorities = 5%, European commission = 60%, Regional authorities = 25%, Non-governmental organisation = 10%

**Additional remarks**

The new Unplugged education material EU-Dap has been funded for a second phase which included the revision of the Unplugged education material. Revisions were based on teacher feedback and barriers identified during EU-Dap phase I and include: - a new lesson order - a student workbook - shorter lessons for easier implementation - innovative activities The student’s workbook, newly developed, is intended as a personal workbook of the student, and contains activities that students are to work through during the Unplugged units. The cards for lesson 9 have also been revised. A new appealing graphic version was developed, and the new programme, together with the student workbook and the cards, is freely available on the EU-Dap website. In the replication project carried out in Croatia, Lithuania, Romania, Russia, and Kyrgyzstan, as well as in the replication study conducted in Slovenia, and in the dissemination Faculty project, the new material was used. As previously, each country translates and adapts the Unplugged material for the local context; the process of adaptation is supervised by the Faculty team. The parents and peer curricula According to the statistical analysis, the parents and peer curricula did not improve substantially the effectiveness of the basic Unplugged curriculum. However, the evaluation study was not designed to have the statistical power sufficient to get differences among the three arms. Moreover, unfortunately, the participation of parents and peers to the planned activities was on overall very low. Consequently, the lack of higher effect of the parents and peer added curricula is not sure. However, anecdotal feedback from parents and teachers and process evaluation results indicate that the parental component, where implemented, was highly rated and added value to the program. Consequently, the parents seminars were suggested and implemented in most countries in the replication of the evaluation and in the dissemination phase. The difference in the effectiveness by gender In the first trial, when stratifying the effectiveness results by gender, significant program effects were shown among boys but not among girls (Vigna-Taglianti 2009). This finding was somewhat unexpected, since the new generations of programmes based on the enhancement of social skills were generally considered more effective, if anything, among girls than among boys. A possible explanation for these findings could be related to a different developmental stage of the two genders in terms of general life skills and
coping mechanisms. At the same age, the acquisition of skills and competences may still be susceptible to modifications among boys, but less so among girls. In fact, girls cope with puberty related social and emotional changes at an earlier age. Consistent with this, the programme appeared effective among very young girls (11–12 years old), whereas the effectiveness among boys did not differ by attained age. Due to these findings and to previous studies indicating that most programmes based on skill enhancement achieve better results among girls when administered at young ages, in the dissemination and replication phase it was decided to suggest and support the implementation of Unplugged among younger adolescents (11-13 years old). Preliminary results from the replication trial in 5 East European countries do not detect gender differences anymore, supporting the above mentioned hypothesis. The replication projects Two replication studies were conducted after the first EU-Dap trial: the Mentor/Unplugged project and the UNODC/ROMENA project. The first involved five East European and Central Asia countries: Croatia, Lithuania, Romania, Russia and Kyrgyzstan. The replication of the evaluati