Early intervention in Europe – status quo and recommendations

LWL, Münster, Oct. 2010

Gregor Burkhart, EMCDDA
Figure 4: Trends in last year prevalence of cannabis use among young adults (aged 15–34)

Sources: National reports (2007), taken from population surveys, reports or scientific articles.

NB: See Figure GPS 4 in the 2008 statistical bulletin for further information.
B) How to get ACCESS to users?
Option 1: Mass media campaigns: they can increase descriptive norm perception (bad)

- US government Cannabis campaign: well studied and implemented messages
- No effects overall, boomerang effects in certain subgroups (GAO 2006): exposure predicted intention to use
- These subgroups were those that had no thoughts nor conversations about Cannabis before (Jabobsohn 2006)
- Scottish Cocaine Campaign (know the score)
- 30 % of users wanted to reduce
- 56 % did not change intentions
- In 11 % the campaign increased the intention of use
Evidence-based contents

- Normative restructuring
  - most peers and females disapprove of use
  - Pluralistic Ignorance (Abilene Paradox)
- Challenge norms of proximal peers
- Assertiveness training
- Motivation and goal-setting
- Improve academic achievements
- Improve parenting styles
- ... and coping
<table>
<thead>
<tr>
<th>Member State</th>
<th>Programme(s) mentioned</th>
<th>URL</th>
<th>Initiation date (programme, (1))</th>
<th>Internet-based DTI? (2)</th>
<th>Detailed description included in review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Quit the shit</td>
<td><a href="http://www.drgcom.de">http://www.drgcom.de</a></td>
<td>2004</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Denmark</td>
<td>SMASH</td>
<td><a href="http://smash.ncre">http://smash.ncre</a></td>
<td>2006</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Netherlands</td>
<td>JellinekLive Online Behandeling Cannabis (Treatment Online)</td>
<td><a href="http://www.jellinek.nl/hulp/content.php?id=89">www.jellinek.nl/hulp/content.php?id=89</a></td>
<td>2008</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Cannabis Onder Controle</td>
<td><a href="http://www.cannabisondercontrole.nl">www.cannabisondercontrole.nl</a></td>
<td>2008</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Grip op gras</td>
<td><a href="http://www.gripopgras.nl">www.gripopgras.nl</a></td>
<td>2008</td>
<td>Yes</td>
<td>See Cannabis Onder Controle</td>
</tr>
<tr>
<td></td>
<td>Wat wij jij met wiet</td>
<td><a href="http://www.watwijjijmetwiet.nl">www.watwijjijmetwiet.nl</a></td>
<td>-</td>
<td>N/A ((1))</td>
<td>No</td>
</tr>
<tr>
<td>Poland</td>
<td>Internet Counselling Center</td>
<td><a href="http://www.rarkomania.org.pl">www.rarkomania.org.pl</a></td>
<td>2004</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Finland</td>
<td>Päähdelinkki – AddictionLink</td>
<td><a href="http://www.pahdelinkki.fi">http://www.pahdelinkki.fi</a></td>
<td>1997</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Voimapiri (Power Circle)</td>
<td><a href="http://web10334.web1.kuulalaaeri.fi/">http://web10334.web1.kuulalaaeri.fi/</a></td>
<td>2007</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Mobiilirinkki, the mobile advice</td>
<td><a href="http://www.eoph.fi/en">http://www.eoph.fi/en</a></td>
<td>2005</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>England</td>
<td>Transfer of Cannabis Self-Help in progress (Know Cannabis and Talk to Frank)</td>
<td><a href="http://knowcannabis.org.uk/">http://knowcannabis.org.uk/</a></td>
<td>2004</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Drogová poradna SANANIM (Drug counselling website)</td>
<td><a href="http://www.drogovaporadna.cz">http://www.drogovaporadna.cz</a></td>
<td>2001</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Prevence zneužívání syntetických drog (Prevention of use of synthetic drugs)</td>
<td><a href="http://www.extc.cz">http://www.extc.cz</a></td>
<td>2001</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

(\(1\)) If applicable.
(\(2\)) See definition of Internet-based drug treatment intervention.
(D) Data not available.
Internet-based drug treatment intervention in EU member states: Four programmes focusing cannabis users
Results: Days of consumption within the past 30 days

![Graph showing days of consumption](image)
Results: Consumed amount (grams) within the past 30 days
5 - Early identification of pupils at risk in schools

- No response
- No information available
- No provision
- Rare provision
- Limited provision
- Extensive provision
- Full provision

[Map showing provision levels across Europe]
Policies on drugs in schools*

- No Information
- Seldom or not available
- Sporadically found
- Regularly available
- Very common

* norms regarding smoking and drug use in school premises as well as procedures for sanctions, detection, interventions
6 – Identify early trajectories into problem use

Chart 2.2: Continuity of anti-social behaviour from age 5 to 17

- **5 years**: Oppositional & defiant, Blamed by parents, Disliked by siblings
  - Percentage of child population: 15%
- **8 years**: Gets into fights, Rejected by peers, Low self esteem
  - Percentage of child population: 10%
- **11 years**: Hard to control, Poor school achievements, Blames others
  - Percentage of child population: 10%
- **14 years**: Stealing and truanting, Deviant peer group, Antisocial attitude
  - Percentage of child population: 10%
- **17 years**: Career offender, Unemployed, Drug misuse
  - Percentage of child population: 10%

*Source: Scott 2002.*
Not “nature versus nurture” but bi-directional effects!

DRUG

GENES

ENVIRONMENT

INTERVENTIONS

synaptic structure and function

stable changes in synaptic structure

stable long-term change in function

Keyword: plasticity!

ADDICTION
Premises of (indicated) prevention

- Certain conduct or personality traits make individuals more prone for
- ... fast progress into problem drug use
- ... early and quick escalation of other problem behavior
- Sensation Seeking, Conduct Disorder, ADHD, being male => neuro-behavioural de-inhibition
- Predict better intensity than initiation of use
- Mostly independent from socio-economic conditions
Impact of GBG vs. controls combined on lifetime drug abuse/dependence disorders.

![Graph showing the probability of drug abuse/dependence over teacher ratings of aggression: Fall of 1st Grade. The graph compares GBG (n=72) and All Controls (n=197).]
Programmes in Europa

*Coping power* (Zonneyville-Bender)
- Children 8-13 years with disruptive behaviour disorder
- Manualised cognitive therapy; 23 weekly sessions 1 ½ h for children and parents
- 5 year follow up: reduction of smoking, reduction of cannabis use, no differences in delinquent behaviour

*Preventure* (Sully & Conrod) for Binge-Drinking Sensation Seekers: 2 Sessions, NNT: 2

*HaLT* (Hart am Limit) – early intervention on problem alcohol use – Emergency rooms
Risk trajectories

- New statistical approaches available
- E.g. sub-typing individuals according to a common trajectory (growth curves) of substance use
- Latent classes (like an early-heavy group, a late-moderate group) may be promising for detecting early antecedents and predicting outcomes for each subgroup separately
Indicated prevention - approaches

• Cognitive-behaviouristic interventions
• Life-skills training, impulse and emotional control
• Motivational interviewing or: just monitor consumption
• Contingency training, deal positively with difficult temper: convert into chance.
• Psychiatric diagnosis, treatment, follow-up,
• Medication
The prevention “filters”: intervention criteria

Universal prevention
no filter

Youth at large

Filter I: social, demographic predictors
(no prediction on individual risk)

Filter II: expert-diagnosed risk factors:
individual mental health or conduct problems;
drug use not obligatory

Selective prevention

Drug use alone as predictor

Indicated prevention

Early intervention

Vulnerable groups

Truancy
Academic underachievement
Offending
Low bonding
Parenting styles
Family conditions

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Early treatment of problematic behaviour can reduce later substance abuse or delinquent behaviour. DBD in childhood predisposes to substance abuse in adolescence.

Manualised cognitive therapy; 23 weekly sessions à 1 1/2 h for children and parents.

Therapists: masters degree in Psychology, special training Children visiting a clinic.

Parents have to pay for programme.

5 year follow up: reduction of smoking, reduction of cannabis use, no differences in delinquent behaviour.
A) Premises of prevention: use is not always risk

<table>
<thead>
<tr>
<th>Estimated number of users in Europe</th>
<th>Lifetime</th>
<th>Last year</th>
<th>Last month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated number of users in Europe</td>
<td>19 mill</td>
<td>10 mill</td>
<td>5 mill</td>
</tr>
</tbody>
</table>

European average 30.5% 15.8% 8.3%

Range 3.7–43.9% 1.5–28.2% 0.5–16.9%
Drug use is just ONE possible predictor for problems.

Cannabis users

70 Million Europeans ever used (LTP)
13 Million in last month
3 Million daily

Problem escalation

Early intervention

Indicated prevention

Mental health problems
Behavioral disorders
Violence
Alcohol problems

13 Million in last month
3 Million daily

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US study: estimated probabilities of the GMM with within-class variation of the intercepts with 3 classes for the variable ‘getting drunk in past 30 days’.
EU-DAP: estimated probabilities of the LCGA with 3 classes for the variable ‘getting drunk in past 30 days’
What is being done?

• Only six countries report on interventions for kids with ADHD or disruptive behaviour
• while …
• A third of EU member states invest in “early intervention” alone.
• i.e. Focus on drug use alone
• Focus on “come approaches”, using existing services and structures
How to get to the anonymous problem users?
Use other markers and surrogates

- Drug law offences
- Problems in school
- Early problem behaviour
- Demand for Internet counselling
- Deglamourise instead of warn
Promising approaches but few evaluations

- Nice: “offer support to young people showing risky consumption early on in order to prevent them from sliding into dependency”
- But: we have numerous examples of interventions that affect subjects differently based on their own baseline risk
- produce iatrogenic effects: adolescents learn deviant behaviour
- produce differential effects across cultures or community settings
Ethical needs and outlooks

• better evaluation designs that allow for valid claims of effectiveness compared to non-intervention
• instruments and intervention methods that allow to respond to especially vulnerable individuals among young consumers
• exchange effective components with other evidence-based interventions
Results:

Consumed amount (grams) within the past 30 days
Alternatives to RCTs: interrupted time series

Observe some measure at regular intervals over time
Note there is one observation per time point
At some point an interruption occurs

- New program, change in guidelines, intervention
If there is a treatment effect, there will be a... 

Regression-discontinuity design

discontinuity

...in the regression lines

...at the cutoff
Hypothesized Mediator Relationship

- Use of no lag, single lagged, and double lagged analyses
Search instruments

http://www.eneedd.eu
Polemic?

- Initiation of substance use is a social process (environmental strategies, universal prevention)
- Self-control of use, or exiting it: matter of opportunities and support (selective prevention)
- (quick) problem development: genetics (indicated prevention)

Mental health problems

- Temper
- Lack of impulse control (NDI)

Problem use

Glantz et al. 2009
For the next steps

• Assure sustainability
• Transfer methodology, including manuals
• Transfer into other settings: schools, families
• “first of all: do no harm” – and improve evidence
• More intensive research and presence in the research community: US (SPR)
• Apply to DG Research
• Standardise also the intake procedure (instruments)?