Scientific bases of prevention programmes in the school setting

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EU-DAP Conference
15-17 December 2005
Lisbon
What do we know about school prevention?

- More than 20 years of research in the drug prevention field.
- Possibility for establishing criteria and principles about drug prevention at schools.
- Frequently no evaluated programs are applied.
- Few European programs are included in revisions.

- Evaluation of programs
- Reviews of literature: systematic reviews; meta-analysis
- Model programs
- Criteria and recommendations …
Consulted Documents

- Reviews of reviews; Who: A Review Of What Works in Prevention, Nhs; Mike Morgan Foxcroft,...
- Meta analisys: Tobler; Hansen, Bruvold, White & Pitts...
- Criteria and Recomendations About Prevention:NIDA, ONDCP...
- Other UE documents: EMCDDA; CE.
Problems related to evaluation

Methodological problems: minimum requirements for program evaluation

- Sample size
- Treatment and control groups
- Randomization
- Pre-post measures
- Attrition: 77%
- Validity and reliability of measures
- Level of implementation (60/80%)
- Follow up.
- Assignment units: school/individuals.
Evaluated aspects

Universal; structured, adolescents

- Effectiveness of school prevention programs.
- General Objectives and placement in the curriculum.
- Target population.
- Drugs targeted
- Components.
- Methodology of implementation; Intensivity.
Effectiveness of school prevention programs.

- Most programs included in revisions show positive effects.
- The effect size of school prevention programs is small and tends to be lower in the follow up.
## Effectiveness of school prevention programs.

Tobler y Stratton, 1997. 120 programas (56 high quality)

<table>
<thead>
<tr>
<th></th>
<th>Interactive</th>
<th>Multi components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect size</td>
<td>(-0.02, 0.33)</td>
<td>(-0.02, 0.39)</td>
</tr>
</tbody>
</table>

- Content and methodology equal importance
Effectiveness of school prevention programs.

- Some traditional programs can have negative effects
## Effectiveness of school prevention programs.

Foxcroft, 2001. (56 surveys)

<table>
<thead>
<tr>
<th></th>
<th>Partially effective</th>
<th>ineffective</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term</td>
<td>14</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>medium</td>
<td>13</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Long Term</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>
Effectiveness of school prevention programs.

White & Pitts, 1998. (62 programs). Effects on illegal drugs

• Modern programs don’t use to have negative effects
• Some circumstances may underestimate the effects of the programs.
General Objective /place in the currículum

Políticas globales

- Health Promotion

Intervenciones curriculares

- Reduction of prevalence/ Delay the onset

Prevención integrada

- Harm/Risk
- Reduction
Organización de la prevención

Políticas escolares
Formular p.ej. reglas y normas sobre consumo de drogas en colegios. Pueden incluir actividades preventivas

Prevención Integrada
Intervenciones para incluir la prevención en todas las actividades de la vida escolar cotidiana. (políticas escolares o inclusión integral de temas preventivos en las materias escolares)

Intervenciones Curriculares - (programas preventivos)
Programas formales en las clases, con sesiones, materiales y temas definidos: la inclusión fija y estable de la prevención en la curricula escolar

Gregor Burkhart; EMCDDA

Posibilidades de controlar y asegurar la calidad y la evaluación de los contenidos y de la implementación
Target population:

- Age, developmental moment
- Level of risk of the target population
- Cultural characteristics
Target population:

- Programs must be targeted to 3 critical developmental stages (WHO):
  - **Inoculation Phase**: previous to experimentation.
  - **Relevancy Phase**: Experimentation began to appear: possibility of practical application of the contents to real life situations.
  - **Later relevancy**: prevalence arise and the context of use, changes.

- Prevention programs should be designed to intervene as early as possible to address risk actors for drug abuser (aggressive behavior; academic difficulties...) (NIDA)
Target population:

- Few revision with high risk populations at school.
- Anyway: Programs must be adapted culturally; formative evaluation is important to know the language, the believes, the rules and norms....
- Programs must be interesting, relevant for target population.
- This means that delivers must be well trained to adapt contents, methods, etc.
Adapted from Dr. Harvey Skinner

Youth Delivery

- Fun
- Accessible
- Relevant
- Participatory
- Autonomy Supporting

Eric Carlin. Mentor Foundation

Adapted from Dr. Harvey Skinner
Drugs targeted

• Many programs assume the gateway hypothesis.

• Interactive tobacco programs three times more effective than generic (Tobler).

• Recommended to target generic to under 13 years old and specific ones to the older. (WHO)
Components: programs typically organize their curriculum around psychosocial factors

- Knowledge.
- Affective education
- Social Influences:
  - Resistance Skills.
  - Normative Education.
- Harm Reduction.
- Others: parental/community...
Components
Hansen (1992): 41 programas:

<table>
<thead>
<tr>
<th>Component</th>
<th>Positive %</th>
<th>Neutral %</th>
<th>Negative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informative</td>
<td>30</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Affective</td>
<td>42</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Sociales Influences</td>
<td>63</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>72</td>
<td>28</td>
<td>0</td>
</tr>
</tbody>
</table>
Effects on drug use/ content of the programs

Tobler y Stratton, 1997. 120 programs (56 high quality)

- Knowledge: 0.11
- Affective: 0.05
- Knowledge + affective: 0.02
- Social Influences: 0.13
- General Social Skills: 0.23
- Others: 0.33

Graph showing the effects with size of the weighted effect.
Effects on drug use/ content of the programs

Tobler et al. (2000). 207 programs (97 programs high quality)
Effects on drug use/content of the programs

Tobler et al. (2000). 207 programs (97 programs high quality)
## Youth Skills Data

<table>
<thead>
<tr>
<th>Skill</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>decision-making</td>
<td>58</td>
</tr>
<tr>
<td>refusal skills</td>
<td>33</td>
</tr>
<tr>
<td>promote protective factors</td>
<td>11</td>
</tr>
<tr>
<td>promote healthy values</td>
<td>8</td>
</tr>
<tr>
<td>promote healthy behaviors</td>
<td>2</td>
</tr>
<tr>
<td>conflict resolution</td>
<td>6</td>
</tr>
<tr>
<td>harm reduction</td>
<td>6</td>
</tr>
<tr>
<td>drug education</td>
<td>4</td>
</tr>
</tbody>
</table>

*not mutually exclusive*

Project Synthesis. Ken C. Winters Ph.D
Components

• It is difficult to know the specific effect of each component.

• Combination of components get better results.

• Strong recommendation: to include social influence components, specially normative education (WHO).

• The relevance of normative education decrease when prevalence arise.
Components

- The effectiveness of communitary components are not clear. Nevertheless, strong agreement in the importance of reinforcing messages from different settings relevant to youth (specially family).
Components

PRINCIPLE 10 - Community prevention programs that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone.

PRINCIPLE 11 - Community prevention programs reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting.
Delivery method

- Interactive/non interactive
- Leader: teacher; peers; police...
- Intensity
- Fidelity
Effect size of interactive/non interactive programs

Tobler y Stratton, 1997. 120 programas (56 high quality)
Effect size of interactive/non interactive programs

Tobler (2000)

![Bar chart showing the effect size of interactive versus non-interactive programs for different drug types: Smoking, Alcohol, Marihuana, Other drugs. The chart indicates that interactive programs have a higher effect size compared to non-interactive programs for all drug types except smoking.]
Effect size of interactive/non interactive programs. High quality set

Tobler (2000)
Delivery method

Interactivity/non interactivity

– Interactive programs have demonstrated twice the effect of non interactive ones.

– Some defends that this aspect is even more important than the content.

– They require specific training of delivers in the methodology of the program.
Delivery method

Leader

- Teacher-led
- Peer-led
- Health Professional-led
- Police-led
Delivery method
Intensity of the program: N° of sessions

– It’s recommended a certain level of intensity.

– The recommended intensity is variable: between 4 and 10 sessions. WHO; W & P: 10 sessions. 39-40 hours/year Health Promotion programs.

– Higher intensity is not related to best results. (differences between interactive/non interactive).
Intensity Data

High intensity 39 %
   40-100 sessions “modal”
   2+ years common

Medium intensity 28 %
   10-20 sessions “modal”

Low intensity 23 %
   5-8 sessions “modal”

Project Synthesis. Ken C. Winters Ph.D
Intensity: booster sessions

- Booster sessions helps to maintain long term effects of the program.
- They should be included in subsequent years.
- The number of session recommended is variable (3-8. WHO).
Fidelity

–Fidelity of the implementation is a crucial element that affect effectiveness (more than 60% of the original curriculum is needed).
–It's related not only to the content, but also to the methodology of implementation.
In Conclusion....

– School prevention can impact the use of drugs.

– To get it, programs must:
  • be delivered in an interactive way: this is a crucial element
  • have sufficient intensity, booster sessions;
  • capture the students interest.
  • be delivered by well trained leaders.
In conclusion....

–Fidelity to the original curriculum is needed (at least 60%).
–The more components, the best results. Specially important the normative education. When prevalence arises the normative education decrease the effectiveness. We need to investigate other alternatives.
–Structured curricular programs get more benefits when supported by other actions in the environment (school centers) this also helps their sustainability.