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**Short-term effectiveness  
of the EU-Dap program**





# Background: (I)

## School is an appropriate setting for illicit drugs use prevention programs

- **4 out of 5** drug users begin before adulthood
- a large number of **adolescents** can be reached
- schools can adopt and enforce a broad spectrum of **educational policies**



# Background: (II)

**In European countries virtually all schools carry out interventions to prevent the onset of substance use**

- most are theory-based
- some have been evaluated as regards intermediate variables (knowledge, intentions...)
- the evaluation of effectiveness in reducing use of drugs is very rare

**There is a solid suspicion that some programmes**

**can make harm**

(Dukes 1997; Hawthorne 1996)



# Background: (III)

## Why is that important to apply effective programs

- **Primary prevention intervention:**
  - the target population is **healthy**, our aim is to prevent a risk behaviour (use of drugs) in a population where most people are **non-users**
- **We are responsible for adolescents who start using drugs because of the intervention**
- **Adolescents are involved**
- The target population **did not ask for an intervention**



# Background: (IV)

- Considering the risk of harm, on the ethical point of view the ***evaluation of effectiveness*** of prevention programs is essential

## Focuses of this presentation

- Cochrane Review on ***School-based prevention for illicit drugs' use*** (Faggiano, 2005)
- short-term results of the **EU-Dap trial**



# Systematic reviews



- ❖ **Systematic reviews** are a tool developed to summarize the results of scientific literature
- ❖ They are the base of the **Evidence Based Medicine**
- ❖ The **Cochrane Collaboration** is an international no-profit network aimed at developing systematic reviews on the effectiveness of health technologies (medicines, interventions) using standardized methods
- ❖ Cochrane Library ([www.cochrane.org](http://www.cochrane.org))



# Rationale for the review



Because of the **huge variability** in the effectiveness of school-based programs for the prevention of **drugs use**

A systematic review has been considered a priority by the **Cochrane Drug and Alcohol Review Group** (CDAG)





# Reference



**This review was published in the Cochrane Library  
(Issue 2 – 2005):**

**"School-based prevention for illicit drugs' use"**

**Authors:**

**Faggiano F, Vigna-Taglianti FD, Versino E,  
Zambon A, Borraccino A, Lemma P**



# Methods



All **RCTs** and **CPS** (Controlled Prospective Studies) evaluating **any intervention program versus a control condition** were considered

The following databases were searched (from beginning to feb 2004)

- Medline & Embase
- ERIC, Sociological Abstracts, Psycinfo
- Cochrane databases

To discover unpublished researches/results, **research teams, and 18 authors of included and excluded studies** were contacted

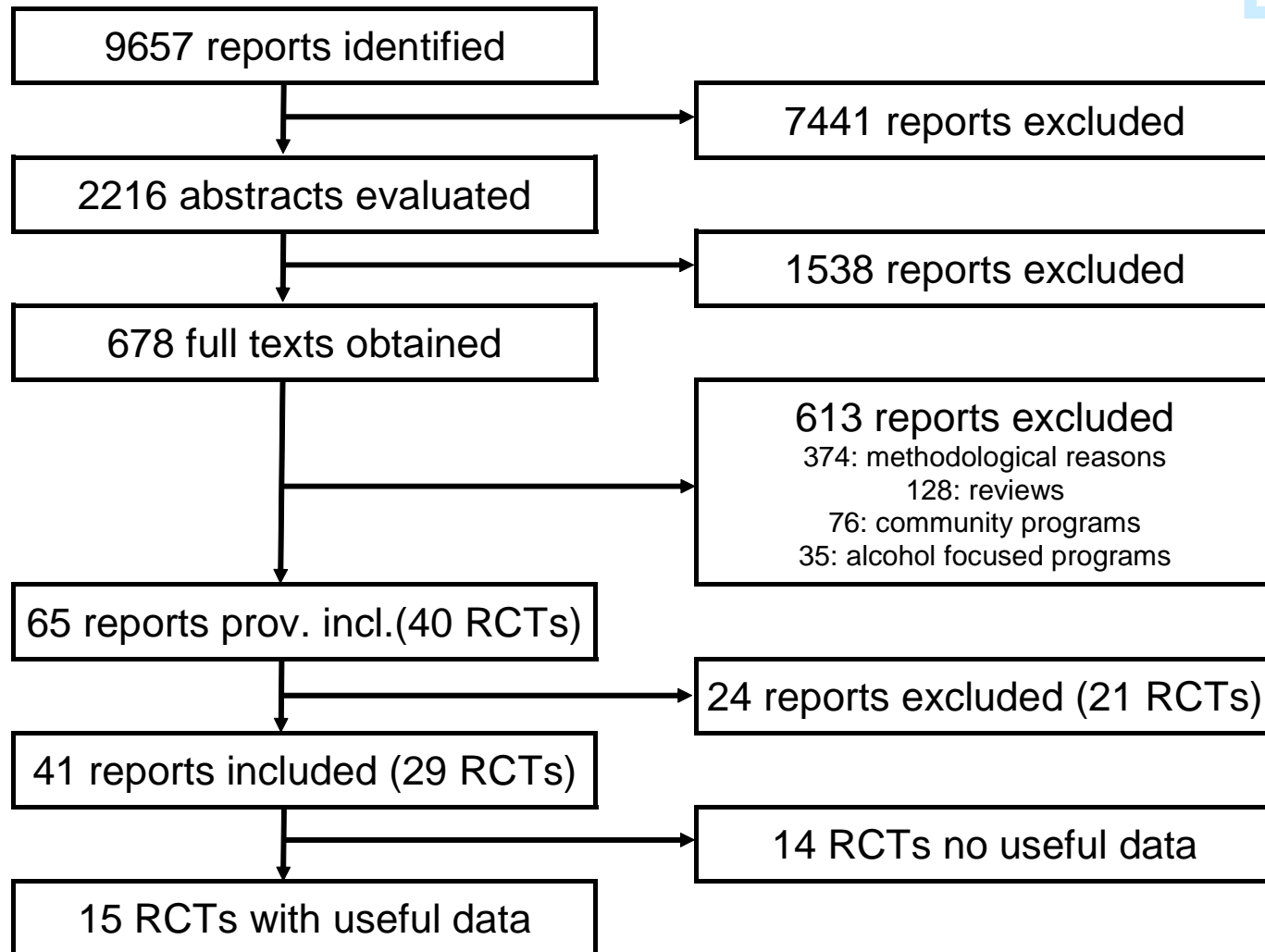




# Flow chart of the review



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# Program classification



The interventions and control arms of the studies were classified as:

- ❖ **skills focused**, aimed to enhance students' abilities in generic, refusal, and safety skills
- ❖ **affective focused**, aimed to modify inner qualities (personality traits such as self-esteem and self-efficacy, and motivational aspects such as the intention to use drugs)
- ❖ **knowledge focused** programs, aimed to enhance knowledge of the effects, and consequences of drug use
- ❖ **usual curricula**



# Included studies



- **29 studies (41 reports)** were included
- 14 did not present data useful for the inclusion in the meta-analyses
- 18 studies were of **6 and 7th grade** students
- in 18 studies the evaluation was based on **post-test** assessment; 13 provided data at 1 year follow-up
- **all but one** were conducted in the **USA**. Only 1 RCT was conducted in the UK





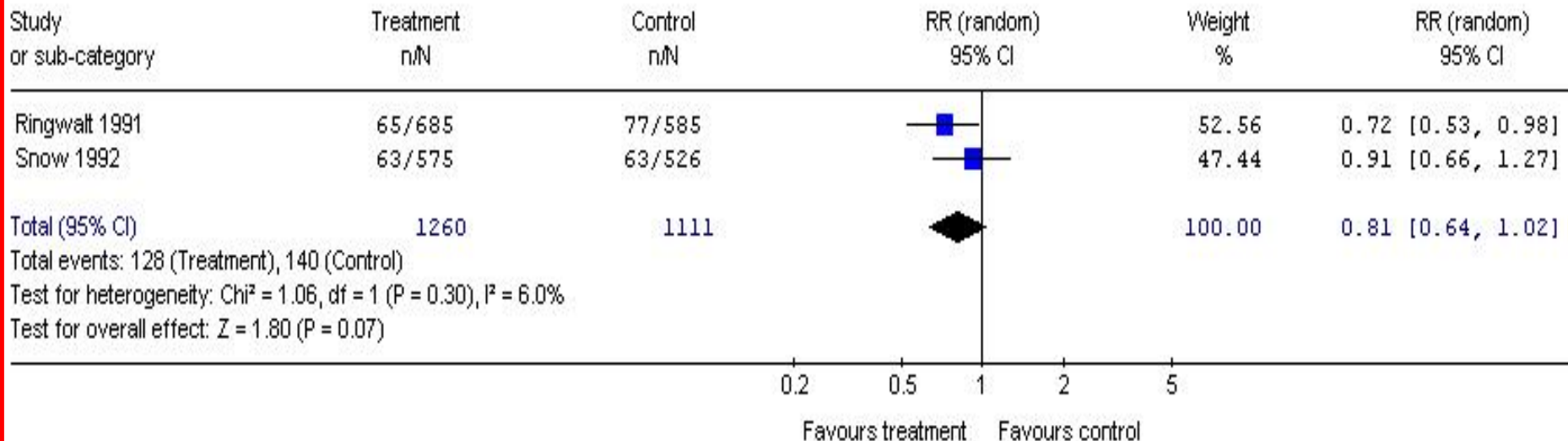
# Results: (I)



**Skills versus usual curricula**  
**drugs use: RR=0.81; CI95%: 0.64, 1.02**

**Reduction: 19%**

Review: School-based prevention for illicit drugs' use.  
Comparison: 02 skills vs usual curricula  
Outcome: 07 drug use





# Results: (II)

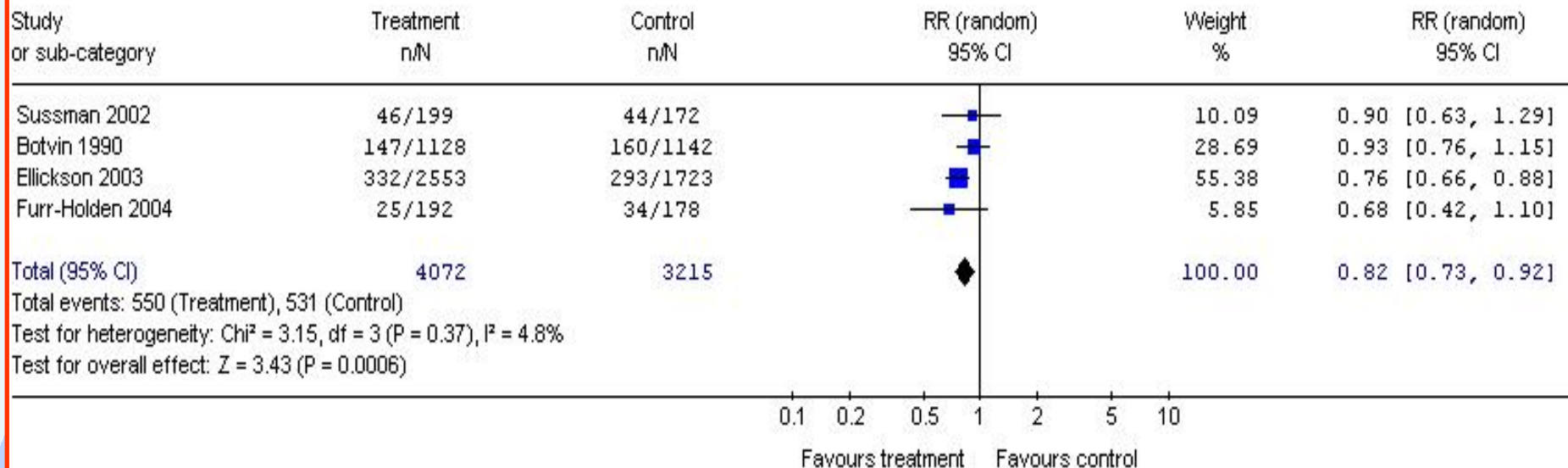


## Skills versus usual curricula

**marijuana use: RR=0.82 CI95%: 0.73, 0.92**

**Reduction: 18%**

Review: School-based prevention for illicit drugs' use.  
Comparison: 02 skills vs usual curricula  
Outcome: 08 marijuana use (all studies)





# Results: (III)

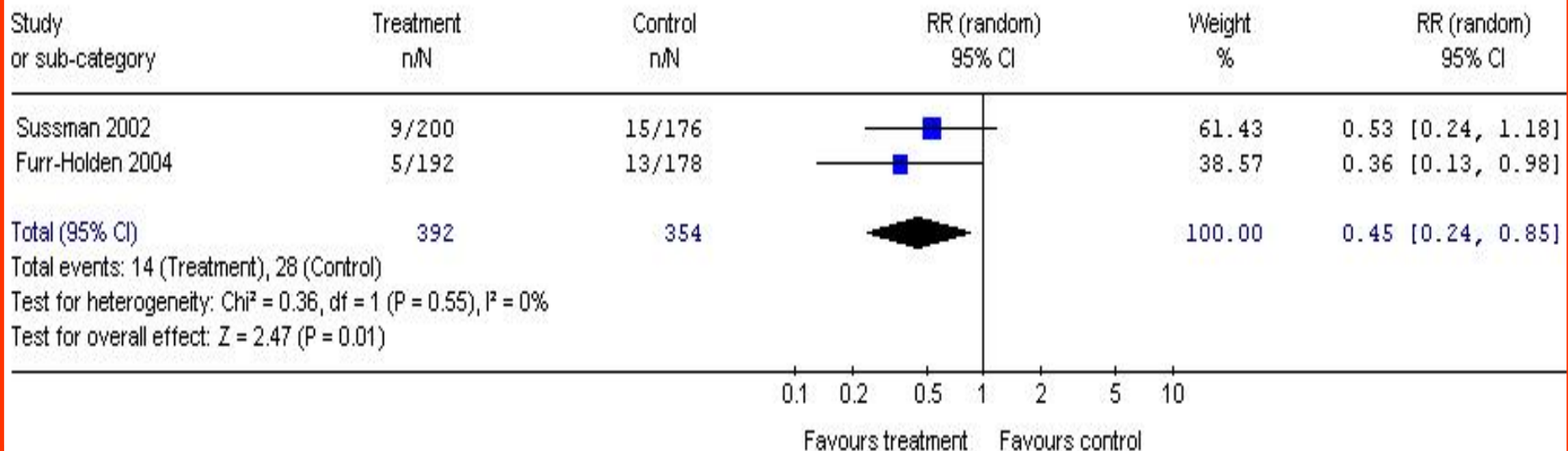


## Skills versus usual curricula

**hard drugs use: RR=0.45; CI95%: 0.24, 0.85**

**Reduction: 55%**

Review: School-based prevention for illicit drugs' use.  
Comparison: 02 skills vs usual curricula  
Outcome: 13 hard drugs use





# Results: (IV)



## Skills versus usual curricula

### Improvement of:

- **drug knowledge:** WMD=2.60 (1.17-4.03)
- **decision making skills:** SMD=0.78 (0.46-1.09)
- **peer pressure resistance:** RR=2.05 (1.24-3.42)
- **self-esteem:** SMD= 0.22 (0.03-0.40)

# Summary of results: (I)



- **Skills focused programs** have a positive effect on both mediating variables and final outcomes, compared to usual curricula
- The meta-analysis on drug and marijuana use showed a **20% lower use** in the intervention groups at the post test, and a 55% lower use of hard drugs
- Most of the RCTs included have a satisfactory methodological quality (mainly quality score=B)



# Summary of results: (II)



- **knowledge focused programs** improve mediating variables (especially **drug knowledge**) compared with usual curricula, but are not more effective than skills based programs
- when final outcomes are considered (drug use), their effects are **comparable to the usual curricula** and the other two types of programs
- **affective-focused programs** improve **decision making skills and drug knowledge** compared to usual curricula and knowledge-focused interventions, but no evidence of effectiveness is shown for use of drugs



# Summary of results: (III)



- **The number needed to treat (NNT=1/ARR) is 33** for marijuana use

Since the prevalence of marijuana use in the post-test of the control arm of the RCTs included in this comparison was **16.5%**

**5 out of 33 students** (16.5% of 33) will use this drug.

Of these, **1 would be prevented** by the intervention, which corresponds to the **20% of the new initiators**



# Limitations



- none of the RCTs satisfied all the **quality criteria**
- most results were outcomes at post test and few data were from **long-term follow-ups**
- many studies did not present effect measures but only statistical indicators so it was impossible to combine them in the meta-analysis
- **measure of effects were very heterogeneous**
- **all but one of the 29 RCTs included were conducted in the USA**





## **EU-Dap study**

**European Drug Addiction  
Prevention trial**



# Characteristics

- ✿ **Experimental study:**
  - Cluster randomized controlled trial
- ✿ **Funded by the European Community**
  - Public Health Program
- ✿ **Involving 9 centers in 7 European Countries**
- ✿ **Conceived by an international expert group**
- ✿ **Supported by EMCDDA**
- ✿ **Main aims:**
  - to build a School-based European Prevention Program (“*Unplugged*”)
  - to evaluate the efficacy of the program























































