

## PSYC1022: The Psychology of Addiction

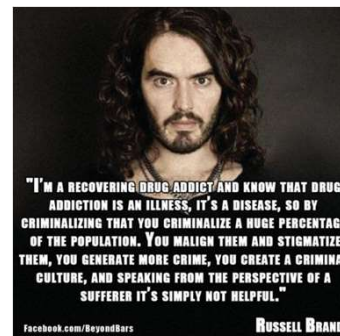
### Topic 15: Prevention & Prohibition (I)

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#### Outline:

- Background
- “Just say no” & Project ALERT
- Project DARE
- Project Keepin’ It REAL
- Meta-analysis of Programs
- Cost-effectiveness



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## Background

The simplest approach to establishing prevention programs is for government to ring-fence additional school funding for prevention education.

- This approach is insufficient without safeguards against the funding being misappropriated for other school costs & without providing additional support for teachers & the delivery of educational material
  - Thus, prevention programs commonly involve outside agencies delivering, or supporting teachers to deliver a fixed curriculum of program material.

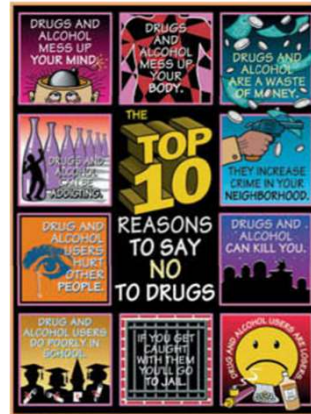


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## Background

Early interventions were based upon notions of rational choice. If youth know the harms/risks of drug use, they will choose this behaviour less frequently.

- Growing evidence on the importance of peer & family influences in determining drug initiation, cognitive dysregulation in high risk children rendering them less capable of rational choice & the immediacy of drug reward compared to its delayed & abstract harms, all serve to undermine the role of rational choice in the decision to initiate drug use
  - explains why early prevention approaches are ineffective.

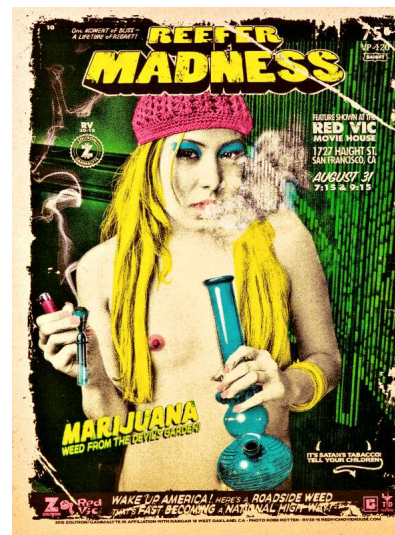


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## Background

Another aspect that undermined early prevention programs was the greatly exaggerated risks to users in terms of addictiveness & neurological damage.

- Youth who observed peers smoking marijuana without apparent immediate harm, would quickly disregard all information provided.
- Now, prevention strategies tend to provide accurate information, rather than scare mongering, so as to avoid being discredited
  - bolsters teenagers' capacity to make rational choices by training self-efficacy & the ability to resist peer influences.



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## 'Just say no' & Project ALERT

One of the earliest US prevention campaigns was 'Just Say No'. Launched by First Lady Nancy Reagan as part of the war on drugs in the 1980s-90s.

- There was no systematic survey evidence which could compellingly evaluate the efficacy of this campaign.
- The campaign gave rise to [Project ALERT](#), which provided experimental evidence that training in the ability to say no does have some small efficacy in pushing back the age of drug use onset.



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## Project ALERT

Based on social influence models which emphasise strategies for identifying & resisting social pressures to use drugs, building self-efficacy, specifying negative personal consequences of use & the benefits of non-use.

Ellickson et al. (1993): conducted a long-term follow up of students who received 8 lessons during grade 7 & 3 additional lessons in grade 8 (aged 12-13) delivered by either an adult alone, or with a teen-leader. Kids were then followed up in high school (grade 9-12 age 14-17, where drug risk increases).

- reduced drug initiation in the 2 years it was running, compared to control kids in schools that did not receive this training, but by high school, gains vanished.
- Program effective only whilst it operated, although by pushing back age of onset, one would expect lower rates of dependence & shorter drug use careers.
- substantial barriers to conducting such long term follow up of the small % of children who become addicted adults
- So whilst this speculation remains a compelling justification for maintaining prevention programs, it is lacking in empirical evidence,

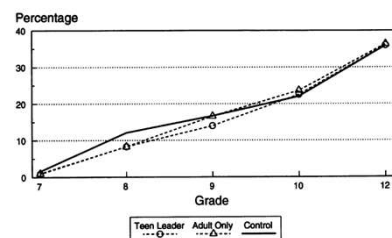


FIGURE 1—Program effects on marijuana initiation in risk level 1 (baseline nonusers of marijuana and cigarette).

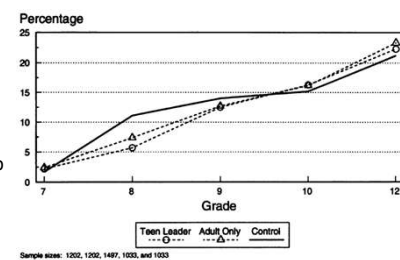


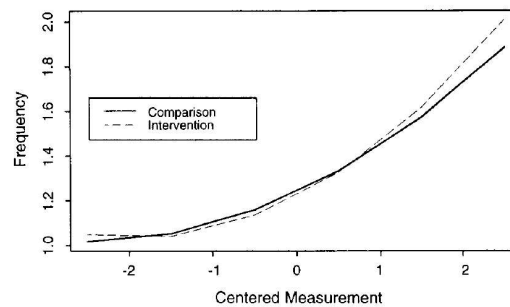
FIGURE 2—Program effects on weekly cigarette use in risk level 2 (baseline cigarette experimenters).

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## Project DARE

US drug prevention scheme initiated in the 1980s. Created by the LAOD in an effort to reduce drug use, gang membership & violent behaviour.

- It was a mixture of drug risk education, self-esteem promotion, decision making skills & alternatives to drug use, which was lacking in a theoretical rationale.
- A 5 year follow up study of schools that received DARE vs controls showed no significant difference in the trajectories of growth of tobacco, alcohol or marijuana use.
  - Such findings lend weight to the argument that prevention programs are not viable methods for reducing drug use.



Clayton et al (1996)

FIG. 2. Annual use of marijuana.

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## Project Keepin' it REAL

Keepin' it REAL is a multicultural, school-based substance use prevention program for 12-14 years old, taught by trained teachers.

- designed to help students assess the risks associated with substance abuse, enhance decision making & resistance strategies, improve antidrug normative beliefs & reduce substance use.
- It is culturally grounded incorporating traditional ethnic values & practices that protect against substance use.

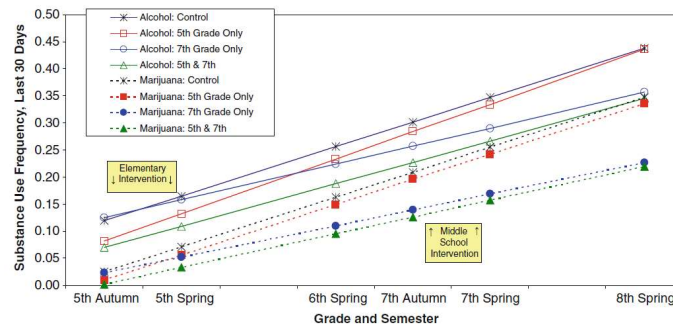


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## Project Keepin' it REAL

Marsiglia et al. (2011): some success in short term reductions in drug use. US Mexican youth received the program in either the 5<sup>th</sup> or 7<sup>th</sup> grade or both & drug use was recorded at those time points plus in the 8<sup>th</sup> grade one year later.

- the use of alcohol & marijuana were reduced for those receiving the program in the 7<sup>th</sup> grade but not for those that only received the program in the 5<sup>th</sup> grade & these improvements were retained one year later in the 8<sup>th</sup> grade.
- It is not clear whether the effectiveness in comparison to DARE is due to program material (ethnic focus) or selection of high risk youth. The effects of project ALERT vanished in grade 9, following kids moving to high school. It is not clear whether REAL's efficacy would be any better than ALERT's at this time point.



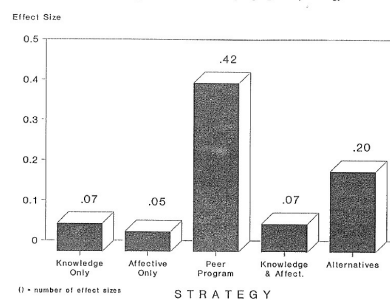
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## Meta-analysis of programs

Tobler (1992): sought to identify the crucial educational element that was successful in reducing short term drug use.

- "Knowledge" programs replicate the scare tactics of the 1970s, exaggerating harms. "Affective" programs focus on improving emotional risk factors without reference to drugs.
- Combining the knowledge & affective programs did not produce an additive effect.
- Most effective were the peer programs, which present knowledge of drug harms in a peer group situation to promote peer support for not using drugs.
- Tobler concluded that this supportive peer structure is the crucial element which is effective for reducing drug use (Midford 2010; Cuijpers 2002).
- evidence to suggest that these effects were better in peer programs in which the leader of the program was a trained mental health professional or peer, compared to teachers.
- This study indicates what components of training are best at reducing drug use during the program, but it remains unclear how best to improve the long-term reductions in drug use, apart from continuing the program for the full course of school education, and beyond (Botvin et al 1983; Botvin 1995).

FIGURE 1. Magnitude of effect size per program by strategy.



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## Cost-effectiveness of prevention

Caulkins et al (1999): used an evidence based approach to estimate the cost-effectiveness of prevention programs.

- estimated that prevention programs produce a 2.9-13.6% reduction in cocaine use. These figures are then considered in relation to the cost of providing the prevention programs (cost-effect ratio). This ratio was then compared with similar estimates for various forms of prohibition strategies & treatment programs.
- Treatment came out as the most cost-effective, producing the greatest reduction in total cocaine consumption per million dollars spent. Federal enforcement ranked second, followed by the high estimate for prevention. Increased minimum sentencing & state police enforcement came next, followed by the middle estimate. Interdicting supply chains & intervention in source countries ranked last alongside the minimum estimate for prevention.

Funding decisions regarding whether to support prevention programs depends upon which estimate for prevention one accepts & that requires more research evidence.

- They estimated that it would be possible to implement a state-of-the-art prevention program in every US school for \$550 million, which would reduce total cocaine consumption by 2-11%.
- Thus, although prevention is comparably cost-effective in relation to other strategies currently in use, prevention as currently implemented can only hope to produce a modest reduction in drug use overall.

Percentage Reduction in Cocaine Use Due to Prevention Program

Low	Middle	High
2.9%	7.6%	13.6%

