Revisione sistematica degli studi sulla efficacia degli interventi di prevenzione primaria dell'abuso di alcool fra gli adolescenti [The systematic review of studies on the efficacy of interventions for the primary prevention of alcohol abuse among adolescents]

Minozzi S, Grilli R

Authors' objectives
To evaluate the efficacy of educational interventions for the prevention of alcohol abuse among adolescents.

Searching
MEDLINE was searched from 1983 to July 1995 using the MeSH terms 'alcohol abuse prevention and control', 'alcoholism prevention and control', 'substance abuse prevention and control' and 'adolescence'. References from selected articles and reviews were also examined.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) were included.

Specific interventions included in the review
The broad types of interventions were:
- rational-informative, i.e. information on the physical and psychological health risks associated with alcohol and drugs;
- social pressure, i.e. techniques used to recognise and resist to social pressure and substance use;
- psychological, i.e. interventions to clarify and strengthen individual values, boost self-esteem, manage anxiety, and teach problem-solving and decision-making skills;
- social norms, i.e. interventions to clarify misconceptions about substance use, such as it being a socially accepted and widely diffused behaviour among young people;
- alternative activities and specific competent skills, i.e. hobbies, sport, creative activities and professional technical skills.

Participants included in the review
The outcomes were youths aged between 10 and 18 years.

Outcomes assessed in the review
Substance use and alcohol consumption were assessed.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the reviewers performed the selection.

Assessment of study quality
The validity criteria used to assess the primary studies examined the following: the relationship between unit of randomisation and unit of analysis; data on sociodemographic characteristics, prognostic factors and baseline measures; the numbers lost at follow-up and the number of drop-outs; and the characteristics of the participants who were lost to follow-up or who dropped out. The authors do not state how the papers were assessed for validity, or how many of the reviewers performed the validity assessment.
Data extraction
The authors do not state how the data were extracted for the review, or how many of the reviewers performed the data extraction.

Methods of synthesis
How were the studies combined?
A qualitative narrative synthesis was undertaken. The trials were grouped according to the types of interventions.

How were differences between studies investigated?
The studies were discussed according to intervention type and details were presented in tabular format.

Results of the review
Twenty-one RCTs involving 27 types of interventions were identified. The most common interventions were 'Social pressures' (17 programmes), 'Psychological' (14 programmes), and 'Informational combined with social pressure or psychological programmes' (14 programmes). The overall number of participants was approximately 38,300 (data for 3 studies were missing).

Of the 16 RCTs comparing the efficacy of combined strategy programmes versus an untreated control group, 4 were found to be effective for some of the outcome measures while only 2 were effective for all outcome measures being assessed.

Of the 8 RCTs comparing the efficacy of a single strategy programme with an untreated control group, 4 were ineffective, 2 were less effective for some of the outcome measures assessed, one was effective only for frequency of substance abuse, and one was only effective for males.

A single RCT compared the efficacy of combined interventions (information plus social pressure, information plus social norms, information plus social pressure plus social norms) with an information-based intervention. Only the combination of information plus social norms was found to be more effective than a single information-based intervention.

Three RCTs compared different ways of administering the same intervention. One study found the intervention to be more effective when delivered by a peer of similar age.

Two RCTs compared the efficacy of the same intervention with respect to intensity or duration. One examined the efficacy of the same intervention with and without reinforcement one year later, and one compared the efficacy of the same intervention by offering a less or more intensive training programme to the person delivering the intervention. There was no difference between either of those interventions.

Authors' conclusions
It is difficult to reach any definite conclusions because of poor methodological quality and the high level of heterogeneity in the outcome measures. Almost all of the studies were conducted in the USA and these findings cannot, therefore, be generalised.

CRD commentary
This was an ambitious review that considered a great variety of studies with a range of interventions. Only one database was searched (i.e. MEDLINE); extending the literature search to include other relevant databases or to systematically review unpublished or grey literature may have revealed more studies. This point is especially relevant given the nature of the interventions being evaluated.

While the validity criteria of the trials was adequately assessed, the authors failed to comment on the review process. For example, how many of the reviewers were involved, whether the decisions to select studies and extract data were made independently, whether the reviewers were blinded to the source, and how any disagreements were resolved.
The authors commented upon the poor methodological quality of studies in this area and highlighted the difficulty in reaching any conclusions. No guidance, even speculative, was given with regards to interventions which may be more effective.

**Implications of the review for practice and research**
Practice: Based on the findings of this review, it is necessary to conduct good-quality efficacy studies before embarking on primary prevention programmes in Italian schools.

Research: Future well-designed effectiveness trials are required before implementing expensive prevention programmes.

**Bibliographic details**

**PubMedID**
9424434

**Other publications of related interest**

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Adolescent; Alcohol Drinking /prevention & control; Child; Female; Health Education /methods; Humans; Italy; Male; Primary Prevention /methods; Program Evaluation; Randomized Controlled Trials as Topic; United States

**AccessionNumber**
11998003207

**Date bibliographic record published**
31/10/2003

**Date abstract record published**
31/10/2003

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.