Alcohol misuse prevention for young people: a systematic review reveals methodological concerns and lack of reliable evidence of effectiveness
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Authors' objectives
To assess the effectiveness of alcohol misuse prevention programmes with young people and the methodological quality of the evaluations.

Searching
The following sources were searched online: Project CORK, BIDS-ISI, PsycLIT, ERIC, ASSIA, MEDLINE, the Family Resources Database (NCFR), Health Periodicals Database, Drug Info, SOMED, Social Work Abstracts, the National Clearing House for Alcohol and Drug Information, Mental Health Abstracts and the ETOH database. Additional studies were located by handsearching retrieved papers and selected journals (specifically Preventive Medicine, the Journal of Alcohol and Drug Education Research, and Health Education Quarterly), and by contacting key individuals and organisations. Studies in any language were considered. The search strategy is available from the authors.

Study selection
Study designs of evaluations included in the review
Experimental or quasi-experimental designs were included, where pre- and post-intervention measures and a control group were incorporated.

Specific interventions included in the review
Prevention programmes for alcohol misuse, whether primary prevention measures to arrest onset of alcohol use or secondary prevention measures to minimise alcohol misuse.

Participants included in the review
Young people aged 8 to 25 years were included. No other patient characteristics were provided.

Outcomes assessed in the review
The outcomes reported included changes in actual or self-reported drinking behaviour, and changes in alcohol-related incidents such as accidents or crime.

How were decisions on the relevance of primary studies made?
The retrieved papers were pre-screened by two reviewers; studies not meeting the inclusion criteria were rejected.

Assessment of study quality
The validity criteria included adequacy of control, method of randomisation or allocation, comparability of group's baseline characteristics, validity of self-reported behaviour, adjustments for confounding, attrition rate and how dealt with, and whether unit of analysis corresponded to unit of randomisation. In addition, effects of chance, confounding and bias were considered. Validity was assessed independently by at least two reviewers, with discussion on disagreement and re-course to other reviewers.

Data extraction
The data were extracted by at least two independent reviewers using standard data extraction forms.

Methods of synthesis
How were the studies combined?
A narrative synthesis was undertaken based on effectiveness (behavioural outcomes) and follow-up period. Follow-up periods were classified as short term (up to 1 year), medium term (1 to 3 years) and long term (over 3 years).

How were differences between studies investigated?
No statistical test for heterogeneity was presented, although the studies included in the review are assessed using several quality criteria, including: clearly stated aims; RCT or baseline equivalence; replicable intervention; numbers recruited provided; pre-intervention data provided; attrition discussed; all outcomes discussed; and, post-intervention data provided.

Results of the review

Thirty-three studies, of which 24 were randomised controlled trials (RCTs) or had well-matched controls, were included.

Assessment of the quality of the studies showed that only 10 of the 33 studies included met four core methodological criteria, indicating the poor quality of the studies. Overall, no prevention programme was convincingly effective. Of the 29 studies of prevention programmes with short-term follow-up, 16 were partially effective (i.e. some self-reported measures were positively influenced), 11 were ineffective (i.e. having no influence on self-reported drinking behaviour) and 5 had negative effects (increased alcohol consumption). The prevention programmes with negative effects did not appear to differ in content from the effective and partially effective programmes.

There were 12 prevention programmes with medium-term follow-up. Of these, 5 were partially effective, 5 ineffective, and 2 had negative effects on self-reported drinking behaviour. Quality assessment of the 5 partially effective programmes revealed poor quality.

Only 2 prevention programmes had long-term follow-up, one was effective and one ineffective.

Authors' conclusions

The prevention programmes reviewed provided limited evidence to recommend any of the programmes. There were limited differences between the programmes that claimed partial success, no effect or negative effects. In fact, some programmes varied in effectiveness depending on length of follow-up.

Good quality research, in terms of methodology, was rare. Studies considered for review lacked suitable control groups (non-random allocation or non-equivalent design), lacked pre-test information, had high levels of attrition, and presented results poorly.

CRD commentary

The review adheres to most of the criteria of a good-quality systematic review. The objective, outcomes assessed, inclusion and quality criteria, sources searched, synthesis of data and assessment of heterogeneity, and methods of applying inclusion criteria, judging validity and extracting data, are discussed. Results are presented clearly. The review lacks detailed information about the programmes, setting and participants within the included studies. Unfortunately, discrepancies exist between the text and tables in the results section.

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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.