Intervention against hazardous alcohol consumption: secondary prevention of alcohol problems
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CRD summary
This review assessed the efficacy of brief interventions for alcohol consumption and alcohol-related problems. The author's conclusion, that most studies found a significant effect of the intervention compared with control on alcohol intake up to 2 years, is in line with the evidence presented but some caution is advised.

Authors' objectives
To determine the efficacy of brief (minimal) interventions on alcohol consumption and alcohol-related problems.

Searching
MEDLINE was searched from 1966 to 2000; the search terms were reported. The references from relevant published papers and dissertations were also checked.

Study selection
Randomised controlled trials (RCTs) investigating secondary prevention (brief) interventions were eligible for inclusion. Studies that compared brief interventions with more intensive treatment, or studies where the intervention extended beyond a brief intervention, were excluded. The included interventions were mainly delivered in primary health care by physicians or nurses, and involved brief counselling, a form of cognitive therapy, and advice and motivational guidance. Follow-up ranged from 8 weeks to 24 months. Studies of participants with hazardous consumption levels and alcohol dependency were included in the review, whereas those that exclusively looked at alcohol dependency were excluded. The participants in the included studies came from primary care and hospital settings. Where reported, their age ranged from 22 to more than 65 years. The primary outcomes were change in alcohol consumption and alcohol-related problems. The secondary outcomes included change in laboratory values, number of sick days, hospital in-patient days, and physical or mental illness.

The author did not state how the primary studies were selected for inclusion in the review, or how many reviewers performed the selection.

Assessment of study quality
The quality of the included studies was assessed using the following criteria: randomisation, blinding, patient recruitment and selection, criteria for diagnosis and selection, type of control treatment, drop-out analysis and documentation on outcome estimates, multicentre studies, delivery of treatment, reporting of the total treatment and statistical methods. A total score was awarded to each study (the highest possible score appears to have been 30 or 33).

The author did not state how many reviewers assessed the quality of the included studies.

Data extraction
The percentage of individuals who reduced their alcohol intake to a moderate or risk-free level was calculated for both treatment groups. The relative risk reduction (RRR), the absolute risk reduction (ARR) and the number-needed-to-treat (NNT) were calculated, along with the 95% confidence intervals, for each study.

The author did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Methods of synthesis
The studies were combined in a narrative.
Results of the review
Twenty-seven RCTs (n=9,965) were included in the review. The number of participants varied from 47 to 1,559.

The quality of the included studies was deemed to be high, good or moderate in 25 studies; the quality of the remaining 2 studies was deemed to be acceptable. The total quality scores ranged from 18 to 33.

Brief interventions had a significant positive effect, compared with control, in 19 studies (18 of which were considered to be at least moderate quality). Nineteen studies had a positive effect on alcohol consumption and six had a positive effect on alcohol-related problems, including number of hospital days and incident of new injuries and the need for hospital care. Twelve studies reported RRRs (range: 4 to 100), ARRs (range: 1 to 31) and NNTs (range: 3 to 100). Eight studies found no, or a negative effect of brief interventions on alcohol consumption or alcohol-related problems.

Three studies looked at the effect of brief interventions in women. One study found a positive effect of treatment in women; one study found an equivalent effect of treatment between the sexes and intervention groups; and one study recruiting only women found no between-group differences. Eight studies compared brief counselling given by a physician with a more intensive form of the intervention; in seven of these studies no between-group differences were found.

Authors' conclusions
Most of the studies found a significant effect of brief interventions on alcohol intake up to 2 years; the effect beyond 2 years is unclear. The design of optimal treatments also remains unclear, and more extensive interventions have not consistently shown a treatment benefit.

CRD commentary
The review question was supported by clear inclusion criteria. Populations and interventions were broadly defined, which was reflected in the included studies. Only one database was searched, thus it is possible that relevant studies were missed. Since the author did not report the methodology used in the study selection, quality assessment and data extraction processes, it is difficult to assess the likelihood of reviewer error and bias. Whilst the quality of the included studies was assessed and summary scores reported, the details of individual components were lacking. The use of a narrative synthesis was appropriate in view of the wide range of participants, outcomes and interventions included. Despite the limitations in the review methodology and data, the author's conclusions appear to follow from the data presented, but some caution is advised.

Implications of the review for practice and research
Practice: The author stated that there are difficulties in transferring the research results into routine health care.

Research: The author highlighted a number of areas that are unclear and, by implication, for which further research might be useful. These included the effect of brief intervention beyond 2 years, the design of optimal treatments and the usefulness of more extensive interventions.

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Bibliographic details

Indexing Status
Subject indexing assigned by CRD

MeSH
Alcohol Drinking /psychology /prevention & control; Alcoholism /prevention & control /psychology /rehabilitation
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.