The efficacy of treatments in reducing alcohol consumption: a meta-analysis

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Authors’ objectives
To assess the relative efficacy of various treatments in reducing alcohol consumption over the short-term, and 6 and 12 months.

Searching
MEDLINE was searched from January 1974 to March 1993 for published studies only.

Study selection
Study designs of evaluations included in the review
Prospective randomised controlled trials (RCTs) utilising reports from informants, or laboratory results to confirm patients’ accounts and reported standard deviations of alcohol consumption.

Specific interventions included in the review
Various alcohol misuse programmes including drug therapy (naltrexone, prozac, disulfiram), counselling (couples therapy, individual therapy, coping skills), behavioural therapy, general practitioners’ advice and monitoring.

Participants included in the review
Alcohol misusers variously defined, with male and female participants from a range of age groups, were included.

Outcomes assessed in the review
Reduction in alcohol consumption was assessed.

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

Assessment of study quality
No formal quality assessments were carried out on individual studies.

Data extraction
The author does 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?
Individual and aggregate effect sizes were calculated. Summary tables provided details of individual studies.

How were differences between studies investigated?
No statistical tests for homogeneity were carried out. Studies were grouped according to length of follow-up, and narrative comparisons of the different treatments were presented.

Results of the review
There were 12 RCTs with 21 comparisons:
6 comparisons with less than 4-month follow-up (n=182),

9 comparisons with 6-month follow-up (n=1,368),

6 comparisons with 12-month follow-up (n=1,116).

At 4 months, follow-up patients who received treatment consumed 16 drinks fewer per week than the controls (experimental group mean 13.2 versus control group mean 29.3). At 12 months the experimental group drank 5 fewer drinks (experimental group mean 22.1 versus control group mean 26.5). There were no differences between the two groups at 6 months.

At 4 months, follow-up trials of drug therapies generated inconsistent findings. One crossover trial of placebo versus calcium carbimide found a significant reduction regardless of what treatment patients received in the switch. In a study of naltrexone, improvements were noted regardless of type of psychotherapy (coping skills or supportive therapy) accompanying the drug therapy.

The 6-month studies did not manifest significant differences between intervention and control groups. Within the 12-month studies, couple counselling and advice with education were found to be relatively powerful interventions. However, the sample size in the couples counselling study was very small (n=8).

Authors' conclusions
When the studies were pooled regardless of follow-up assessment periods, the experimental group drank significantly less than the control. These results suggest that, in general, patients who received experimental treatments consumed less alcohol than patients in the control groups. However, results from this study do not identify which treatments were effective for different subgroups of alcoholics. Primary studies have not systematically monitored the effects of psycho-social interventions.

The authors recommend that future studies should: (1) use common outcome criteria, so that studies can be compared; (2) make a priori hypotheses regarding how much effect a specific treatment will have upon consumption; (3) determine which treatments work best for which patients; (4) document the level of experience of counsellors/therapists and how the quality of treatment was monitored; and (5) contrast pharmaco-therapy plus psychosocial therapy with pharmaco-therapy alone.

CRD commentary
The search strategy is very limited. Restricting the search to one database and to published studies introduces possible bias in the review. The summary tables provide extensive details of studies including design limitations but these limitations are not fully considered in the narrative summary. In one study (reported three times and in three different follow-up periods), couples therapy is designated as the experimental group and individual therapy as the control for the first two follow-up periods, but these designations are reversed for the 12-month period. This study consisted of a small sample size (n=8).

Bibliographic details

PubMedID
7558483

Other publications of related interest

Indexing Status
Subject indexing assigned by NLM

MeSH
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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.