Behavioral couples therapy (BCT) for alcohol and drug use disorders: a meta-analysis

Powers MB, Vedel E, Emmelkamp PM

CRD summary
The authors concluded that behavioural couples therapy reported better outcomes than individual-based treatment for married or cohabiting individuals who sought help for alcohol dependence or drug dependence problems. The authors' conclusions appeared to reflect the evidence, but multiple potential biases in the review process made reliability of the conclusions unclear.

Authors' objectives
To evaluate the effectiveness of behavioural couples therapy (BCT) for alcohol and drug use disorders.

Searching
PsycINFO, MEDLINE and Cochrane Central Register of Controlled Trials (CENTRAL) were searched to May 2007 for English-language articles. Search terms were reported. Reference lists of reviews were searched.

Study selection
Randomised controlled trials (RCTs) that evaluated behavioural couples therapy compared to an active or inactive control group for treatment of alcohol and substance use disorders were eligible for inclusion. Studies that included people other than just the intimate partner were excluded. Outcomes of interest were reduced frequency of use, reduced consequences of use and higher relationship satisfaction.

Most of the included studies compared behavioural couples therapy with cognitive-behavioural therapy (CBT). Other control groups included psychoeducation attention control treatment, individual-based treatments, alcohol-focused spouse intervention and treatment as usual. The number of sessions varied from six to 56. Most studies targeted alcohol use; opiates and polysubstance use disorders were the targets of the other studies. It appeared that for most studies, behavioural couples therapy was an adjunct to treatment and for some studies supplemental medication was provided. Studies included couples where only one member had a current substance use disorder.

The authors did not report how many reviewers selected studies for inclusion.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
Data on frequency of substance use, consequences of substance use (such as job loss, hospitalisation, overdose, work missed) and relationship satisfaction were extracted. Data were used to calculate between-group effect sizes (ES), standard error (SE) and 95% confidence intervals (CI) for individual studies that used Hedge's g and Cohen's d statistics. Studies that reported multiple outcomes were categorised and combined within each domain using methods reported by Borenstein et al. Where data were missing, effect sizes were estimated using conversion equations for significance tests. Effect sizes were corrected for small sample sizes based on methods by Hedges and Olkin. Where necessary, authors of studies were contacted for further information.

The authors did not state how many reviewers conducted data extraction.

Methods of synthesis
Data for each outcome were pooled using both fixed-effect and random-effects models to calculate mean effect size, standard error and 95% CIs for each outcome. Outcomes included overall effect size (all outcome variables and different time points), frequency and consequences of use and relationship satisfaction. Effect sizes were categorised as small (Cohen's d=0.20), medium (Cohen's d=0.50) and large (Cohen's d=0.80). Additional analyses were conducted for post-treatment and follow-up (where data were available) and for studies where the comparison group was CBT only.
Meta-regression was used to explore effects of sample sizes, dose response and year of publication. Publication bias was assessed using methods by Rosenthal's fail-safe n.

Results of the review
Twelve RCTs (754 couples, range 16 to 138) were included in the review.

Behavioural couples therapy was superior to control groups for all outcomes overall (Cohen's d=0.54, 95% CI 0.37 to 0.71), overall frequency of use (Cohen's d=0.36, 95% CI 0.19 to 0.53) and overall consequences of use (Cohen's d=0.52, 95% CI 0.20 to 0.83). Behavioural couples therapy resulted in higher relationship satisfaction compared to control (Cohen's d=0.58, 95% CI 0.37 to 0.79). Results using Hedge's g statistic were reported.

At post-treatment, behavioural couples therapy was superior to control for relationship satisfaction (Hedge's g=0.63, SE 0.11, 95% CI 0.42 to 0.84), but not for consequences of use. Behavioural couples therapy was superior to control at follow-up for frequency of use (Hedge's g=0.44, SE 0.19, 95% CI 0.24 to 0.64), consequences of use (Hedge's g=0.49, SE 0.22, 95% CI 0.06 to 0.91) and relationship satisfaction (Hedge's g=0.52, SE 0.12, 95% CI 0.28 to 0.75). Results were significantly better for behavioural couples therapy compared to control at three months post-treatment and for at least the next year (p≤0.000 for both analyses).

Meta-regression showed no significant relationship between effect size and year of publication or number of treatment sessions. Higher effect sizes were associated with larger sample sizes. There was no evidence of significant publication bias.

Authors’ conclusions
Overall, behavioural couples therapy reported better outcomes than more typical individual-based treatment for married or cohabiting individuals who sought help for alcohol dependence or drug dependence problems.

CRD commentary
The review question was clear with appropriate inclusion criteria; inclusion criteria were broadly defined for participants. Several relevant sources were searched. The limitation to studies in English meant there was potential for language bias. Publication bias was formally assessed and no evidence was found. Methods used in the review process were not reported, so any steps taken to reduce reviewer error and bias in study assessment and data extraction were unknown. Study validity was not assessed and so results from this review and any synthesis may not have been reliable. Studies were combined in a meta-analysis and heterogeneity was assessed using meta-regression; however, it was unclear how many studies contributed to each meta-analysis. Limited information was reported for individual studies, participant characteristics included, which made it difficult to assess the generalisability of the results. Sample sizes were small (most studies included fewer than 80 couples).

The authors’ conclusions appeared to reflect the evidence, but potential for language bias, lack of both validity assessment and reporting of review methods and small sample sizes made the reliability of the conclusions unclear.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated a need for further robust research to identify the mechanisms responsible for superior outcomes with behavioural couples therapy, to investigate the effectiveness of behavioural couples therapy in studies that included participants with low severity alcohol problems and to establish the extent of baseline relationship distress as a moderator of outcomes.

Funding
Not stated.

Bibliographic details