Achieving abstinence by treating depression in the presence of substance-use disorders

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CRD summary
This review aimed to investigate whether the effect of antidepressants on abstinence is enhanced by psychosocial intervention in depressed substance abusers. The author concluded that there is no evidence that psychosocial intervention enhances the effectiveness of antidepressant treatment on abstinence. The conclusion is unlikely to be reliable as the inclusion criteria were not appropriate to address the review question.

Authors' objectives
To investigate the hypothesis that, in depressed substance abusers, the effect of antidepressants on abstinence is enhanced by psychosocial intervention.

Searching
PubMed, MEDLINE, PsycINFO, the ETOH database, and the Statistics and Data website for the Substance Abuse and Mental Health Services Administration were searched for studies conducted between 1970 and July 2002; the search terms were not reported. References from reviews and retrieved studies were also checked.

Study selection
Study designs of evaluations included in the review
Placebo-controlled studies were eligible for inclusion.

Specific interventions included in the review
Studies comparing antidepressants with placebo were eligible for inclusion. The medications used in the included studies were desipramine, imipramine, fluoxetine, sertaline, dioxepine and nefazodone. In addition to anti-depressants, some of the included studies administered manualised counselling or cognitive-behavioural therapy (CBT). Other studies had no additional reported psychological treatment.

Participants included in the review
Studies of patients with both mood disorder and alcohol or other drug abuse or dependence were eligible for inclusion. The participants in the included studies abused alcohol, opiates, cocaine, both cocaine and opiates, or abused or were dependent on several drugs. The majority of the studies were of participants with major depressive disorder as classified by American Psychiatric Association criteria (DSM III or later).

Outcomes assessed in the review
Inclusion criteria for the outcomes were not specified. The outcome of interest was abstinence at termination of the study.

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

Assessment of study quality
The author stated that validity was assessed. They did not state what criteria were used, or how many reviewers performed the validity assessment.

Data extraction
The author did not state how the data were extracted for the review, or how many reviewers performed the data extraction. Data were extracted to enable an odds ratio (OR), with 95% confidence interval (CI), for abstinence at
termination to be calculated for each study.

Methods of synthesis
How were the studies combined?
Pooled ORs with 95% CIs were calculated separately for studies that reported no psychosocial treatment, studies that used manualised counselling, and studies that used CBT; a fixed-effect meta-analysis was used. Publication bias was investigated using a funnel plot.

How were differences between studies investigated?
Heterogeneity was investigated using the chi-squared statistic. The author also state that several exploratory subgroup analyses were conducted.

Results of the review
Eleven studies (n=592) were included. The study design was not reported, though by implication the studies were randomised controlled trials. Four studies were excluded because of missing information, though it was unclear what this information was.

Abstinence was more common in those treated with antidepressant medication and no reported psychosocial treatment (4 studies, n=224) compared with placebo (OR 4.4, 95% CI: 1.8, 10.6, P<0.01).

Abstinence was more common in those treated with antidepressant medication in conjunction with manualised counselling (3 studies, n=155) compared with placebo (OR 2.4, 95% CI: 1.1, 5.2, P<0.05).

There was no statistically significant difference in abstinence between those treated with antidepressant medication in conjunction with CBT (4 studies, n=213) and placebo (OR 1.7, 95% CI: 0.9, 3.3).

There was no statistically significant heterogeneity in any of the analyses. The funnel plot was not displayed although the author described it as strongly asymmetrical, therefore indicating publication bias.

Authors' conclusions
There is no evidence that psychosocial intervention enhances the effectiveness of antidepressant treatment on abstinence.

CRD commentary
There was a clearly stated study hypothesis, but the inclusion criteria were not appropriate to address this. To address the hypothesis that the addition of a psychosocial intervention to antidepressants can enhance the effects on drug use, the review should have included studies that compared antidepressant medication with and without the addition of a psychosocial intervention. However, the review inclusion criteria resulted in the inclusion of studies that compared antidepressants with placebo and antidepressants plus psychosocial intervention with placebo. Relevant databases were searched, although there were no specific attempts to locate unpublished studies and there was evidence of publication bias. Important aspects of the review methodology (study selection, data abstraction and validity assessment) were not reported, thus it was unclear whether appropriate steps had been taken to reduce reviewer error and bias. The methodological quality of the studies was not reported and more detailed descriptions of the primary study populations, the medications and the psychosocial interventions would have been helpful to assess the possibility of clinical heterogeneity. In summary, appropriate studies to address the review question were not included, therefore the author's conclusions are unlikely to be reliable.

Implications of the review for practice and research
The author did not state any implications for practice or further research.
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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.