Remission in major depressive disorder: a comparison of pharmacotherapy, psychotherapy, and control conditions

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Authors' objectives
To assess the comparative efficacy of pharmacotherapy and psychotherapy for major depressive disorder.

Searching
MEDLINE and PsycINFO were searched up to November 2000 for publications in the English language (the search terms were reported). The bibliographies from relevant studies and reviews on the topic were checked.

Study selection
Study designs of evaluations included in the review
Only multiple-cell randomised controlled trials (RCTs) were eligible for inclusion.

Specific interventions included in the review
Studies directly comparing pharmacotherapy, psychotherapy and control conditions were eligible for inclusion. The pharmacotherapy interventions used in the included studies were amitriptyline, imipramine, nortriptyline and phenelzine. The psychotherapy treatments used were cognitive-behaviour therapy, interpersonal therapy, problem-solving and social work counselling. The control conditions used were pill placebo plus clinical management, treatment as usual by a general physician and low-intensity supportive therapy. The duration of treatment in the included studies ranged from 10 to 16 weeks, except for one study in which it was 8 months.

Participants included in the review
Studies of adults with major depressive disorder, assessed using standard diagnostic criteria, were eligible for inclusion. The participants were from an out-patient psychiatric setting in three of the included studies, and from a primary care setting in the remaining studies. The mean age of the participants ranged from 32 to 40 years and the majority were female (mean 76.5%, range: 68 to 85).

Outcomes assessed in the review
The outcome assessed was full remission. Only studies reporting sufficient data for the calculation of remission percentages were eligible for inclusion. In two included studies remission was defined as a score of seven or less on the Hamilton Depression Rating Scale (HDRS); in three studies it was defined as a score of six or less on the HDRS; and in the remaining studies it was defined as a score of five or less on the Raskin Depression Scale. Remission was not required to be sustained for any duration.

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

Assessment of study quality
The authors did not state that they assessed validity. They did, however, report whether the studies adequately described randomisation, whether the studies using a pill placebo were double-blind, whether the outcome assessors were blinded, and whether the studies adequately described the number of drop-outs and withdrawals.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. Remission was calculated using both completers and intent-to-treat (ITT) groups where available.
Methods of synthesis
How were the studies combined?
The studies were combined in two ways: in one analysis the outcome data were treated as categorical data, while in the other they were treated as continuous data. In the first analysis, the percentages of remission for the three treatment groups across the studies were calculated and a chi-squared analysis was carried out. In the second analysis, the mean percentages of patients with remission (along with the standard deviation and 95% confidence interval, CI) across the studies for the three conditions were calculated, and the means were then compared across conditions using an analysis of variance (ANOVA). Separate analyses were carried out on an ITT and per protocol basis.

How were differences between studies investigated?
A sensitivity analysis was carried out to examine the effects of removing a study with a high drop-out rate from the analysis.

Results of the review
Six RCTs (n=883) were included.

Based on the ITT analysis (using chi-squared), pharmacotherapy and psychotherapy were significantly more efficacious than control conditions, but were not significantly different from each other: 46.4% remission for pharmacotherapy, 46.3% remission for psychotherapy, and 24.4% remission for the control conditions, (chi-squared 37.52, d.f.=2, p<0.0001). Sensitivity analyses did not change the findings. The findings were similar when an ANOVA was performed using ITT data: 46.2% (95% CI: 37.6, 54.8) remission for pharmacotherapy, 47.9% (95% CI: 37.8, 57.9) remission for psychotherapy, 27.7% (95% CI: 15.7, 39.7) remission for the control conditions, (F=6.82, d.f.=2,17, p=0.007).

Authors’ conclusions
Both antidepressant medication and psychotherapy may be considered first-line treatments for mildly to moderately depressed out-patients.

CRD commentary
The review question was clearly stated, although the inclusion criteria were very broad for the intervention and participants. Two relevant electronic databases were searched and the subject headings used in the search strategy were given. No attempt was made to identify unpublished data and non-English language publications were excluded; studies may therefore have been missed. Details of the review processes used were not reported, thus the potential for error and bias in the review is unclear. The authors provided a narrative description outlining differences between the studies. However, it would have been helpful to have had more information on the content and form of the psychotherapy. In addition, more details of each individual study are needed. Statistical heterogeneity was not assessed and, given the clinical heterogeneity present, it is unlikely that it was appropriate to pool the data from the studies. The methods used to pool the studies were inappropriate to examine the effectiveness of the intervention, as the data were treated as though they were from one study. Moreover, an assessment of the quality of each study was not presented. In view of the limitations outlined, the authors' conclusions regarding efficacy should be treated with caution.

Implications of the review for practice and research
Practice: The authors stated that both antidepressant medication and psychotherapy may be considered first-line treatments for mildly to moderately depressed out-patients. They also stated that the similar rates of remission for psychotherapy and pharmacotherapy are of particular relevance in the treatment of patients with contraindications for medication, such as pregnancy or intolerable side-effects.

Research: The authors stated that studies should examine both remission and recovery as outcomes.

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