The efficacy of group psychotherapy for depression: a meta-analysis and review of the empirical research
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Authors' objectives
To assess the effect on depressive symptoms of group therapy compared with no treatment, to examine the clinical significance of that effect, to compare cognitive and behavioural treatment with psychodynamic group treatment, and to compare group with individual therapy.

Searching
PsycLIT and MEDLINE were searched for reports published in the English language between 1970 and 1998; the search terms were stated. In addition, the bibliographies of relevant studies were checked and relevant psychiatric and psychology journals were handsearched. Abstracts of dissertations were excluded.

Study selection
Study designs of evaluations included in the review
Case series were excluded and studies of any other design were eligible.

Specific interventions included in the review
Studies of group psychotherapy were eligible for inclusion. The included studies often used postgraduate professional therapists or a combination of professionals and trainees; a few studies used only trainee therapists. Most of the studies used brief therapy interventions (average of 19 hours of therapy over about 12 sessions) and conducted sessions weekly with an average of 7 patients per group. The types of psychotherapy used in the included studies were cognitive and behavioral treatments (most studies), psychodynamic and interpersonal, social support, nondirective or attention control, and other.

Participants included in the review
Studies of adult patients with depressive spectrum disorders were eligible for inclusion, whereas studies of adolescents and children were excluded. Studies that reported pre- and post-treatment scores of depression for patients treated with group therapy were eligible for inclusion. In the included studies, the mean age of the participants was about 44 years and 70% were women. The included studies were of volunteers recruited through media advertisements and patients who had sought routine out-patient treatment or had been referred.

Outcomes assessed in the review
Studies that assessed outcomes using a well-known measure of depression, based on self- or interviewer report, were eligible for inclusion. The studies had to report pre- and post-treatment depression scores for patients allocated to group therapy. Studies that did not assess the outcomes using well-known measures were excluded. The included studies assessed the outcomes using a range of measures. The outcomes were assessed post-treatment and, where possible, at follow-up (mean 19 weeks, range: 4 to 52).

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
Validity appears to have been assessed by considering two quality criteria: data reported for a waiting-list control group; and participants diagnosed using generally accepted criteria such as Research Diagnostic Criteria or American Psychiatric Association criteria (DSM-IV). The authors did not state how the papers were assessed for validity, or how many reviewers performed the validity assessment.
Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. Effect sizes (ESs) were calculated according to a standard procedure where the mean pre- to post-treatment change for the control group was subtracted from the mean change for the active group therapy. The result was then divided by the pooled within-group standard deviation. For studies reporting more than one outcome measure, the average ES across the outcome measures was calculated for each study.

Methods of synthesis
How were the studies combined?
The studies were combined using meta-analysis. The number of studies that concluded group therapy was effective, and the number of studies that presented adequate data and reported a statistically-significant benefit, were reported. For studies with an untreated control group, the numbers of studies that reported no significant improvement and significant improvement with group therapy were summed. The pooled ES and 95% confidence interval (CI) were estimated for group therapy compared with untreated control post-treatment and at follow-up, using data from studies with an untreated control group that presented adequate data. The clinical significance of the ES was evaluated by comparing the mean post-treatment Beck Depression Inventory (BDI) scores with BDI norms reported by Robinson et al. (see Other Publications of Related Interest), BDI scores in the general population, and by estimating the proportion of patients with clinically meaningful improvement after treatment.

How were differences between studies investigated?
Statistical heterogeneity was not assessed. Pooled ESs and 95% CIs were estimated for group compared with individual therapy, and for cognitive-behavioural compared with psychodynamic therapy. Interventions conducted in research settings were compared with clinical settings by estimating the mean post-treatment decrease in BDI in each setting. The pooled ES and 95% CI of 8 studies meeting two quality criteria were estimated separately.

Results of the review
Forty-eight studies (n=2,218) were included in the review, of which 18 had an untreated control group.

Forty-five of the 48 studies concluded that group psychotherapy was effective. Forty-three of the 46 studies presenting adequate data found that group therapy significantly reduced depression.

Studies with an untreated control group (18 studies): all of these studies found that depression decreased in both the treatment and the control groups. Fourteen studies found that group therapy significantly reduced depression compared with delayed control treatment. Four studies found no significant difference between the treatments.

Group therapy versus no treatment (15 studies reporting adequate data): compared with no treatment, group therapy significantly reduced depression at post-treatment and at follow-up; the ES post-treatment was 1.026 (range: -0.07 to 2.30; 95% CI: 0.565, 1.487); the ES at follow-up (10 studies) was 1.178 (95% CI: 0.586, 1.764).

Clinical significance of change: at baseline, patients allocated to group therapy were moderately depressed according to Robinson norms for BDI scores. Patients treated with group therapy still had higher BDI scores post-treatment than the general population (P<0.001). Group therapy increased the proportion of patients with clinically meaningful improvement post-treatment in comparison with no treatment (9 studies, 356 patients), 48.2% versus 18.5%.

Group versus individual therapy (9 studies): the results differed across the studies. Five studies favoured individual therapy and 4 studies favoured group therapy. There was no statistically-significant difference in ES between group and individual therapy across the 5 studies presenting adequate data; the ES was 0.15 (CIs included zero, but no values were given).

Cognitive-behavioural therapy versus psychodynamic therapy (8 studies): the benefit of cognitive-behavioural therapy over psychodynamic therapy just reached statistical significance; the ES was 0.295 (95% CI: 0.001, 0.589).

Higher quality studies (8 studies meeting two quality criteria): compared with no treatment, group therapy significantly
reduced depression in higher quality studies; the ES was 0.94 (95% CI: 0.17, 1.70)

Research versus clinical setting: there was no statistically-significant difference in ES between treatments conducted in research and clinical settings; the mean decrease from baseline to post-treatment was 51.0% (median 53.7%) in research settings (16 studies) versus 44.8% (median 41.7%) in clinical settings (18 studies). There was no significant difference between locations in baseline BDI scores: 25.3 for research versus 23.3 for clinical (P>0.10).

The drop-out rates ranged from 0 to 63.3% across all studies.

Cost information
The review mentioned 4 studies that reported cost information. One study found that group therapy (10 sessions of 1.5 hours each) resulted in cost-savings of 37.5% in comparison with individual therapy. Another study found that group therapy saved 41.7%. One study found that group therapy saved 25% with 4 patients per group and 42% with 6 patients per group. One study found that group therapy cost 8 to 17% that of individual therapy.

Authors' conclusions
The authors concluded that group therapy reduces depression in depressed patients, but a number of questions remain unanswered.

CRD commentary
The review question was broadly defined in terms of the intervention, participants and outcomes, but the inclusion criteria for study design were not defined. The search was limited to English language publications, which may have resulted in the omission of other relevant studies. The search terms were stated. No attempt was made to locate unpublished studies, thus raising the possibility of publication bias, as the authors acknowledged. The methods used to select the studies, assess validity and extract the data were not described. Hence, any efforts made to reduce errors and bias cannot be judged. Validity was assessed using only two criteria and the general quality of the studies was not discussed. In particular, no mention was made of the blinding of outcome assessors.

It was not stated whether the data were extracted on an intention-to-treat basis. The studies were combined in a meta-analysis using pooled ESs where sufficient data were reported. Heterogeneity was not formally assessed, so it is unclear whether it was appropriate to pool the studies. In addition, most of the results were for assessments immediately after the end of treatment. The authors acknowledged some of the limitations of their review and the evidence. The review should be interpreted in the context of the limitations highlighted.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice. Research: The authors stated that large controlled trials are required to compare group therapy with delayed treatment or sham treatment in real-world settings. They also stated that further research is required: to explore factors that may predict responsiveness to group therapy rather than individual therapy; to assess the advantages of group therapy over individual therapy; to determine the active components of group therapy; to assess the long-term cost-effectiveness of group versus individual therapy; to assess the efficacy of group therapy for in-patients and in out-patient day hospitals; to examine methods to reduce drop-outs; to assess the acceptability of group versus individual therapy; to assess the effect of group therapy in patients with co-existing psychiatric and medical conditions; and to compare group therapy with antidepressants.

Bibliographic details

Other publications of related interest
Robinson LA, Bemoan JS, Neimeyer RA. Psychotherapy for the treatment of depression: A comprehensive review of

Indexing Status
Subject indexing assigned by CRD

MeSH
Depressive Disorder /therapy; Psychotherapy, Group /therapeutic use

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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.