The efficacy of group psychotherapy for older adult clients: a meta-analysis

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CRD summary
This review concluded that group interventions for older adults appeared to be effective. Unclear inclusion criteria, search limitations, absence of quality assessment, potential flaws in the review process, unclear reporting and variation amongst studies raised concerns about the reliability of the results. The authors' conclusions were unlikely to be reliable and should be interpreted with caution.

Authors' objectives
To determine the effectiveness of group psychotherapy for older adults over 55 years.

Searching
English language studies were identified in searches of PsycINFO, MEDLINE, Academic Search Premier and Dissertation Abstracts. The references of retrieved articles were searched for additional studies. Further searches were performed on names of authors known to have conducted research involving group therapies. Search terms were reported. Search dates were not reported, however, the authors report that they searched for studies published since two previous meta-analyses, one in 1991 and another in 2001.

Study selection
Studies that compared a group intervention to a control intervention, or that provided pre- and post-treatment scores for group therapy clients over 55 years old were eligible for inclusion.

Included studies investigated cognitive behavioural therapy (CBT), reminiscence therapy and other (unspecified) group interventions. All problem types were identified among included studies: functional problems (such as depression and anxiety); organic problems (such as dementia); and other problem types. The average age of patients was 73.2 years (± 7.14) with an average range from 61 years to 88 years. Of the 12 studies providing follow up data, the average follow up was 5.3 months (range four weeks to one year).

The authors stated neither how the papers were selected for the review nor how many reviewers performed the selection.

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

Data extraction
Data were extracted from most studies by one reviewer (20 per cent of studies had data extracted by another reviewer). Data were used to calculate the effect size and corresponding 95% confidence intervals.

Methods of synthesis
Results from studies that included multiple primary outcome measures (where more than one scale was used) were pooled by averaging the effect sizes of each measure and weighted using the inverse variance weighting method. Results were pooled across studies in meta-analyses using random-effects models. Statistical heterogeneity was assessed using the Q statistic and the I² test. Subgroup analyses were conducted in studies comparing treatment and control groups, studies that provided follow up data and studies in geriatric patients aged over 65 years.

Moderator analyses were conducted to test the differences between groups, irrespective of homogeneity of effect sizes, where ANOVA (analysis of variance) was calculated for categorical variance and meta-regression for continuous variables. All moderator analyses were based on random-effects models and conducted on pre-post treatment effect sizes. Pre-specified moderator variables to be investigated were problem type, age, gender, living situation and group characteristics.
Publication bias was assessed using the fail safe N, which indicates the number of non-significant studies needed to reverse an overall statistically significant result to non-significance.

Results of the review

It was unclear from the review how many studies were included. It appeared that there were 40 studies and some duplication. The included studies had small sample sizes (33 of the 40 included studies had less than 30 participants). The reported number of participants was 1,381, but this was not possible to verify. It appeared that 36 studies (44 comparisons) reported pre-post-treatment data, 22 studies (27 comparisons) reported treatment/control data and eight studies (12 comparisons) reported follow up data.

Main outcomes

Overall compared to pre-treatment, group therapy improved post-treatment scores (effect size 0.42, 95% confidence interval: 0.33, 0.49, p=0.001); 1,700 non-significant studies would be required to reverse this outcome. In subgroup analyses, results remained significant in studies that compared a treatment and control (27 studies, effect size 0.24, 95% confidence interval: 0.06, 0.40, p<0.01), studies that provided follow up data (12 studies, effect size 0.42, 95% confidence interval: 0.28, 0.54, p<0.001) and in geriatric patients (30 studies effect size 0.36, p<0.01). Significant heterogeneity was observed for all outcomes.

Moderator variables

Group treatments for both functional and organic problems resulted in post-treatment improvement. Group treatment was more effective for functional problems. CBT and reminiscence therapy both resulted in post-treatment improvement, but CBT was significantly more effective. The older the individuals, the less effective the group intervention. Further moderator analyses showed studies that treated patients under 70 years had the best outcomes (effect size 0.55, p<0.001), studies in patients aged between 70 and 76 had the next best outcomes (effect size 0.38, p<0.001) and studies in which the patients were aged over 76 had the weakest outcomes (effect size 0.26, p<0.001); in all groups there was evidence of significant improvement post-treatment.

Publication type (published or unpublished), gender, group characteristics (number of sessions and length of sessions) did not moderate the overall effect.

Authors' conclusions

Group interventions for older adults appeared effective, however, the average effect size for controlled studies of group therapy with older adults appeared to be smaller than values reported in meta-analyses with younger participants.

CRD commentary

This review did not address a clear question. Inclusion criteria for study design, interventions and outcomes were not explicitly reported. Relevant medical databases were searched and search terms were reported. It appeared that unpublished material was included, but the source was unclear and did not appear to be part of the search strategy. Search dates were not reported. The restriction to English-language studies meant that relevant data may have been missed, increasing the possibility of language bias. Outcome measures were unclear: the authors made reference to the Beck Depression Inventory and the Hamilton Rating Scale for Depression, but no use of these scales in the primary studies was reported and no specific outcome measures were given in the review. The authors made some attempt to ensure that reviewer error and bias was minimised in the data extraction process, but not for study selection. The authors did not appear to have considered the validity of included studies.

Several discrepancies were noted in terms of the reporting of the number of studies and associated outcomes relating to the evaluation of each intervention, which made it difficult to verify the authors' results. The decision to pool data using meta-analysis was questionable, as the studies were heterogeneous.

The authors' conclusions reflected the evidence presented, but the review's methodological deficiencies raised concern about the reliability. The authors' conclusions were unlikely to be reliable and should be interpreted with caution.
Implications of the review for practice and research
Practice: The authors stated that the study results should encourage various groups to provide and fund group treatment for older adults, because group therapy was both helpful and cost-effective. This may not have been appropriate given the evidence presented.

Research: The authors stated that future studies of group therapy should include a control group and that more studies with follow-up data were needed.

Funding
Not stated.

Bibliographic details

Indexing Status
Subject indexing assigned by CRD

MeSH
Aged; Aged, 80 and over; Depression; Humans; Psychotherapy, Group

AccessionNumber
12009103487

Date bibliographic record published
06/05/2009

Date abstract record published
29/07/2009

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.