The effects of psychotherapy on reducing depression in residential aged care: a meta-analytic review

Cody RA, Drysdale K

CRD summary
This review assessed the efficacy of psychotherapy for depression in people in residential care for the elderly, concluding that the type of therapy might not be as important as how well the therapist integrated it into the setting. The review had various limitations, and the authors' conclusions were broad. The results and conclusion may not be reliable.

Authors' objectives
To assess the efficacy of psychotherapy for depression, in people in residential care for the elderly. Also, to explore broader factors relating to efficacy.

Searching
Six databases, including MEDLINE, EMBASE, and The Cochrane Library, and two trials registers, were searched up to November 2010, for articles in English. Unpublished data were sought from ProQuest. Search terms were reported. Reference lists of relevant studies were manually screened.

Study selection
Eligible for inclusion were randomised controlled trials (RCTs) assessing the efficacy of psychotherapy (as defined in the review), for the treatment of depressive symptoms or disorders, for patients in residential care for the elderly (including assisted living and long-term care). Participants were eligible if they were aged over 50 years. The outcomes of interest were measures of depression, that were self-reported, observer rated, or from clinical interviews. Eligible trials had to report sufficient data to calculate effect sizes. They were excluded if they aimed to reduce disruptive behavioural disturbance associated with dementia, or had a primary aim of memory enhancement.

Most of the included trials were conducted in the USA; others were conducted in Taiwan, Canada or Iran. They were published between 1986 and 2010. The included participants were those with or without cognitive impairment or diagnosed dementia, and some patients had chronic physical health conditions. The mean age of participants was 79.8 years. Interventions included individual or group sessions of reminiscence, behavioural activation, cognitive-behavioural therapy, therapeutic conversation, or self worth. Regimens varied, but sessions were usually provided by a nurse, a psychologist, or both. Control groups received treatment as usual, remained on a waiting list, or received an alternative active intervention, such as social discussion. Some participants were on psychotropic medication. Their cognitive status was measured using various tools.

The authors did not state how many reviewers screened studies for inclusion.

Assessment of study quality
The trial methods were assessed using the Cochrane risk of bias tool and the 23-item Quality Rating Scale; a score of more than 25 out of 46 on the Quality Rating Scale indicated high quality.

The authors did not state how many reviewers assessed the trials.

Data extraction
Outcome means and standard deviations were extracted, for intervention and control groups, at all time points (start, after intervention, and follow-up) to calculate the effect sizes and their 95% confidence intervals, for the primary outcome (depressive symptoms). The data were also extracted on secondary outcomes: life satisfaction, problem behaviour, pain ratings, loneliness, general well-being, functional status and cognitive function, clinical response, and treatment acceptability.

The authors did not state how many reviewers extracted the data.
Methods of synthesis
The effect sizes, for the primary outcome, and their 95% confidence intervals were pooled using a random-effects model, and adjusted using Hedges’ g. An effect size of 0.20 was small, 0.50 was medium, and 0.80 was large. Statistical heterogeneity was assessed using Cochran Q and I².

An analysis was performed to compare treatment with active controls, and analyses were undertaken to explore the influence of therapy variables, participant characteristics, and study design, on the results. A sensitivity analysis was performed by excluding trials that were considered to be outliers.

The results for secondary outcomes were presented in a narrative synthesis.

Results of the review
Seventeen RCTs were included in the review, with 862 participants (range 20 to 130) – 666 participants were analysed. Trials scored between 14 and 31 out of 46 on the Quality Rating Scale; five trials scored less than 25, indicating low quality. Most trials were unclear on the Cochrane risk of bias evaluation for sequence generation and concealment of allocation; other limitations were reported. Attrition rates ranged from zero to 43.2%. Eight RCTs had follow-up assessments, ranging from six weeks to six months.

Psychotherapy was effective in reducing depressive symptoms, in residents, with a medium effect size (g=0.57, 95% CI 0.30 to 0.83; 17 studies), but with some evidence of statistical heterogeneity (I²=56.6%). The effective trials had interventions involving reminiscence therapy or cognitive-behavioural therapy. Similar findings were reported at follow-up, but when trials comparing intervention to active controls were assessed, the effects were no longer statistically significant (six RCTs). The findings from the exploratory analyses were reported.

Individual studies reported significant improvements in life satisfaction, problem behaviour, pain ratings, loneliness, and general well-being. No improvements were reported for functional status, and mixed results were reported for cognitive function.

Analyses indicated that studies of integrated care (g=1.48) found a stronger treatment effect than those of non-integrated care (g=0.54; p=0.43). Other findings were reported.

Authors' conclusions
The type of therapy may not be as important as how well the therapist can integrate it into the aged care setting.

CRD commentary
The review question and supporting inclusion criteria were clearly defined. Various sources were searched to identify published and unpublished data, but as the search was limited to articles in English, language bias cannot be ruled out. The trial methods were assessed using two published measures, and they indicated that the trials were at some risk of bias. The authors did not state whether each stage of the review process was performed in duplicate, which means that reviewer error and bias cannot be ruled out.

There was variation between trials, and appropriate methods appear to have been used to synthesise the data. There was some evidence of statistical heterogeneity and the authors tried to identify the influencing factors. They acknowledged that attrition rates were high, in some trials, and sample sizes were limited. They noted other limitations, such as potential participant selection bias, and some participants were taking psychotropic medication, so psychotherapy could have acted as an add-on treatment rather than being effective on its own.

The review methods had various limitations, and the evidence presented had limitations. The authors’ conclusions were fairly broad; the findings and conclusions should be treated with caution as they may not be reliable.

Implications of the review for practice and research
Practice: The authors stated that psychotherapy for depressive symptoms, in residents, could be recommended, but it was unclear if the effects were clinically significant, and if they remained without concurrent drug therapy.

Research: The authors stated that more rigorous studies, with larger samples, were needed, including studies from settings with minimal care, and from a range of countries. Further research was required to determine whether the
favourable effects, for secondary outcomes, could be replicated.

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