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Cognitive Behavioural Therapy and Reminiscence Techniques for the Treatment of Depression in the Elderly: a Systematic Review

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Psychotherapy, including cognitive behavioural therapy (CBT), reminiscence and general psychotherapy (GPT), is viewed as effective treatment for depression, but its efficacy in older people is not well defined. This systematic review included 14 randomized controlled trials that assessed the efficacy of psychotherapy for treating depression in elderly people (≥ 55 years). The results of this meta-analysis showed that, compared with placebo, psychotherapy was more effective in reducing depression scores (standardized mean difference –0.92; 95% confidence interval –1.21, –0.36). Subgroup analysis showed that CBT, reminiscence and GPT were all more effective than placebo; psychotherapy as an adjunct to antidepressant medication did not increase effectiveness. There was no significant difference between CBT and reminiscence in improving depression. A higher drop-out rate was observed in studies that did not include psychotherapy versus those that did, although this difference was not statistically significant. Thus, various general formats of psychotherapy are effective for treating depression in older people, although psychotherapy does not significantly increase the effectiveness of antidepressant medication.

KEY WORDS: Elderly; Depression; Systematic review; Psychotherapy; Cognitive behavioural therapy; Reminiscence

Introduction

Depression in the elderly is common in many settings and has become recognized as a significant public health concern.[1] In primary care settings there is evidence that elderly patients receive suboptimal treatment for depression, despite the existence of several effective interventions.[2] Antidepressant drugs are generally the first-choice treatments when specific therapy for depression is indicated,[3] but patients who do not benefit from antidepressant medication may switch to psychotherapy, as may patients who indicate a preference for such

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treatment.[4] Psychotherapy is not, however, widely available in primary care settings, and elderly patients often resist referral to specialist mental-health facilities.[5] Thus, providing easily accessible psychotherapy within a primary care setting may help to improve the treatment of depression in the elderly.

Identifying the most suitable format and content of psychotherapy is especially important for elderly patients with depression.[6] To improve the dissemination of psychotherapy in the elderly, this report summarizes selected findings of a systematic review of published evidence concerning the efficacy of psychotherapy for treating depression in the elderly. The review process included various general formats of psychotherapy.

Materials and methods

LITERATURE-SEARCH STRATEGY

The literature-search strategy used in this study has been previously reported.[7] In brief, relevant literature was identified through searching MEDLINE (from January 1966), EMBASE (from January 1980) and Cochrane Library (from January 1990) databases, through to March 2009. The search strategy used the key words 'depression' and 'older'.

From the identified papers, four researchers selected literature that included clinical trials on depression (using diagnostic criteria covering any depression scale) in elderly patients (defined as ≥ 55 years of age). Selected papers were classified by the same four researchers according to their study objective and were divided into four subgroups: (i) aetiopathogenesis or epidemiology-related; (ii) diagnostics-related; (iii) therapeutics-related; or (iv) prognosis-related. The present review covers the therapeutics-related subgroup, which used the following inclusion criteria for study selection.

Study type

Only randomized controlled trials (RCT) were included. There was no restriction on language, sample size, or duration of follow-up. Studies where the drop-out rate exceeded 50% were excluded.

Study participants

Studies that recruited male and female patients with depression were selected; these included patients with concomitant physical illness. All randomized patients were ≥ 55 years of age. Trials that included patients with other primary psychiatric diagnoses or dementia were excluded.

Interventions

Studies involving three types of psychotherapy were included: cognitive behavioural therapy (CBT), reminiscence and general psychotherapy (GPT). Interventions were compared with placebo, no intervention (e.g. being put on a waiting list), antidepressant medication or another type of psychotherapy.

Cognitive behavioural therapy

For the purposes of this review, CBT was based on the definition employed by Jones *et al.*[8] The intervention was classified as 'well-defined' if it clearly demonstrated that: (i) the intervention involved recipients establishing links between their thoughts, feelings and actions with respect to the target symptom; and (ii) correction of recipients' misconceptions, irrational beliefs and reasoning biases was related to the target symptom. A further component of the intervention should have involved one or both of the following: (i) the recipient monitoring his or her own thoughts, feelings and behaviours with respect to the target symptom; and (ii) the promotion of alternative ways of coping with the target symptom.[8]

Reminiscence

According to the Nursing Interventions Classification system, reminiscence therapy is an intervention that uses recall of past events, feelings and thoughts to facilitate pleasure, quality of life or adaptation to the present.[9,10]

General psychotherapy

For the purposes of this review, GPT was defined as psychotherapy other than CBT and reminiscence; GPT included talking, counselling therapy and education about depression.

OUTCOME MEASURES

The main outcome measure was the level of symptoms of depression. Such symptoms were measured using a range of scales, including self-rating and clinician-rated scales such as the 20-item Symptom Checklist (SCL-20) for depression, the Hamilton Rating Scales for Depression (HRSD), the Beck Depression Inventory (BDI) and the Geriatric Depression Scale (GDS). Symptom levels were presented as continuous (mean ± SD) or dichotomous measures (e.g. remission/non-remission; response/non-response). Secondary measures included drop-out rate.

DATA EXTRACTION

Two reviewers independently extracted and cross-checked the data from each trial. Data discrepancies (differences in the data published in separate articles that reported findings from the same trial, for example) were settled by discussion.

STATISTICAL ANALYSIS

Data were entered into Review Manager (RevMan®) 4.2 (Cochrane Collaboration, Oxford, UK). For dichotomous outcomes, risk ratios (RR) and 95% confidence intervals (95% CI) were calculated. For continuous outcomes, the standardized mean difference (SMD) and 95% CI were calculated. Heterogeneity was assessed using methods provided by RevMan® 4.2: for a P-value > 0.1 and I^2 < 50%, a fixed-effects model was used; otherwise a random-effects model was used.

Results

STUDY INCLUSION CRITERIA AND CHARACTERISTICS

Only 23 randomized controlled trials were identified in which psychotherapy was used to manage depression in the elderly.[11 – 33] After excluding studies without relevant outcomes or with drop-out rates > 50%, only 14 studies were included in this systematic literature review.[11 – 24] These 14 studies involving 705 participants, 607 of whom completed follow-up. Of the participants who completed follow-up, 138, 109 and 100 received CBT, reminiscence and GPT, respectively, and 260 participants received placebo/no intervention. Additionally, 51 participants received antidepressants plus psychotherapy and 49 participants received antidepressants alone. Seven studies compared CBT with placebo/no intervention,[11 – 14,20,21,23] four compared reminiscence with placebo/no intervention,[11,12,19,24] two compared GPT with placebo/no intervention,[18,21] four compared CBT with reminiscence,[13,16,18,22] and two compared antidepressants plus psychotherapy with antidepressants alone.[17,23]

As there was significant heterogeneity among the studies included, a meta-analysis using a random-effects model was performed for all comparisons.

EFFICACY

Results from the meta-analysis showed that, compared with placebo, psychotherapy was

significantly more effective in decreasing the depression score (SMD –0.92; 95% CI –1.21, –0.63) (Fig. 1). Subgroup analysis showed that CBT (SMD –1.34; 95% CI –1.89, –0.79), reminiscence (SMD –0.64; 95% CI –1.04, –0.25) and GPT (SMD –1.00; 95% CI –1.40,

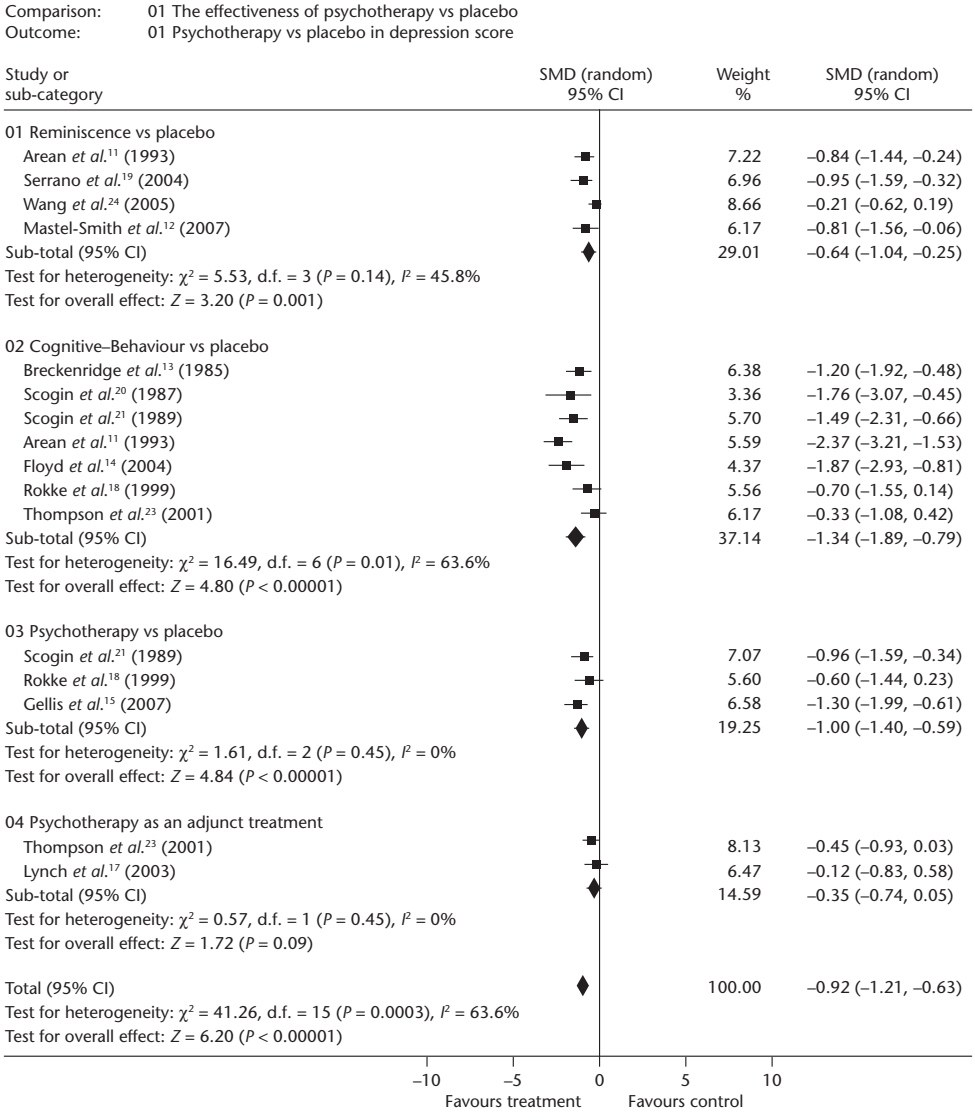

FIGURE 1: Meta-analysis and subgroup analysis showed that psychotherapy (cognitive behavioural therapy, reminiscence, or general psychotherapy) was significantly more effective than placebo/no intervention in decreasing depression scores. There was a trend in favour of psychotherapy plus antidepressants when comparing psychotherapy as an adjunct to antidepressant medication compared with antidepressants alone, although these results were not statistically significant (SMD, standardized mean difference; CI, confidence interval, d.f., degrees of freedom)

–0.59) were all significantly more effective than placebo/no intervention (Fig. 1).

In the two studies that investigated the efficacy of psychotherapy as an adjunct to antidepressant medication, there was a trend in favour of psychotherapy plus antidepressants compared with antidepressants alone, although these results were not statistically significant (Fig. 1). After pooling results from these two studies, psychotherapy was not observed to augment the efficacy of antidepressants significantly (SMD –0.35; 95% CI –0.74, 0.05) (Fig. 1).[17,23]

In four studies, no statistically significant differences were observed between CBT and reminiscence. After pooling these studies, there was no significant difference between CBT and reminiscence in improving depression symptoms (SMD –0.21; 95% CI –0.61, 0.20) (Fig. 2).[13,16,,18,22]

Five studies reported the drop-out rates among participants receiving antidepressant medication with or without psychotherapy. After pooling the results from these studies, no statistically significant difference was observed between treatment with antidepressant medication with or without psychotherapy (RR 1.03; 95% CI 0.55, 1.94) (Fig. 3).[12,17,19,23,24]

Discussion

Although only 14 studies were included in this literature review, they involving a total of 705 elderly participants with depression and focused on similar clinical issues;[11 – 24] therefore, the meta-analysis that we undertook may provide some useful information.

First, the general forms of psychotherapy including CBT, reminiscence and GPT were all found to be effective treatments for depression in older patients. Psychotherapy as an adjunct to antidepressant medication did not, however, significantly increase the efficacy of antidepressants. Relative to being put on a waiting list (no intervention) or receiving placebo, the study results all favoured psychotherapy. However, in some of the studies included in the systematic review, the effectiveness of psychotherapy versus 'waiting list' or placebo was not statistically significant.[14,18,24] Results from the meta-analysis showed that, compared with placebo/no intervention, psychotherapy was

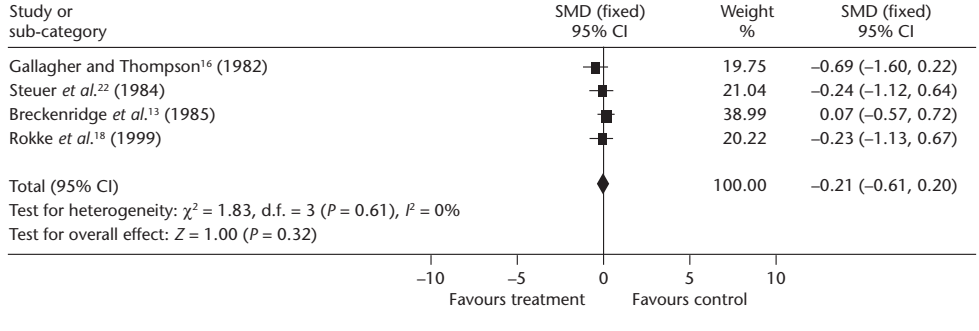

FIGURE 2: Meta-analysis and subgroup analysis showed no statistically significant difference between the efficacy of cognitive behavioural therapy (CBT) and reminiscence therapy (SMD, standardized mean difference; CI, confidence interval; d.f., degrees of freedom)

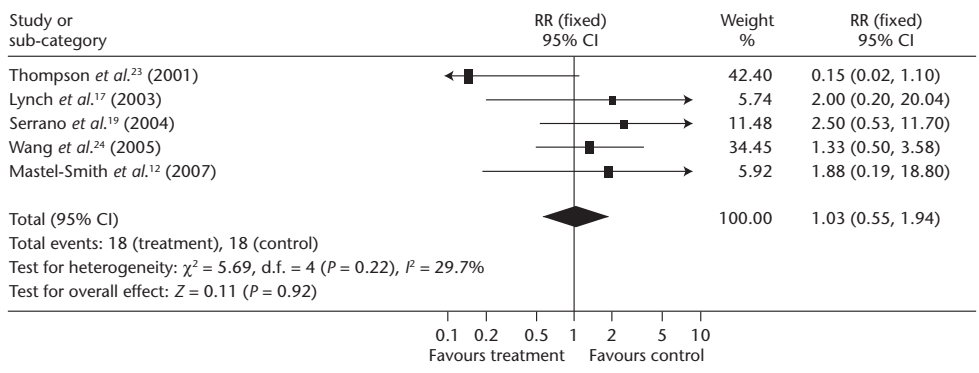

FIGURE 3: Meta-analysis of five studies showed no statistically significant difference in the reported drop-out rates among participants receiving treatment for depression with or without psychotherapy (RR, risk ratio; CI, confidence interval; d.f., degrees of freedom)

significantly more effective, overall. In addition, each individual psychotherapy format (CBT, reminiscence, GPT) was also significantly more effective than placebo/no intervention. Thus, the present study confirms the efficacy of psychotherapy for treating depression in the elderly. Secondly, CBT and reminiscence had similar efficacy for treating depression in these patients. This has interesting implications for selecting the format of psychotherapy to be used for treating depression in the elderly. Thirdly, this systematic review also makes it clear that there are many issues still to be addressed, such as comparing the efficacy of GPT with CBT and reminiscence, establishing the optimal duration of psychotherapy, comparing high-performance integration with other treatments for depression, assessing cost effectiveness, and understanding the impact of co-morbidities on the effectiveness of psychotherapy for depression.

There were several limitations to this systematic review. First, any review of clinical trials that relies on published reports is subject to publication bias: trials reporting positive results are more likely to be published than negative trials. This is a difficult issue to resolve, as unpublished data have not undergone a rigorous peer review process. The absence of peer review does not, however, necessarily negate the validity of results from these studies. Secondly, in the studies included in the present review, outcomes were limited to depression scores. Although in some studies depression symptoms were measured using three or more different depression scales, this was the only outcome measure available for analysis and might not reflect the impact of treatment on various other aspects of depression, such as remission/non-remission, response/non-response, patients' thoughts of suicide, etc. Finally, as only 14 relevant RCT were available for inclusion in this review, involving a total of only 705 participants, the findings reported here are based on a small sample size and are not, therefore, conclusive.

In summary, psychotherapy (including

various general formats of psychotherapy) might be an effective treatment for depression in the elderly, but it does not appear to increase efficacy significantly when used as an adjunct to antidepressant medication. These conclusions, however, should be further investigated by randomized controlled trials that include large patient samples and different types of relevant outcome measures.

Conflicts of interest

The authors had no conflicts of interest to declare in relation to this article.

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