Psychosocial interventions for late-life major depression: evidence-based treatments, predictors of treatment outcomes, and moderators of treatment effects

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CRD summary
The authors concluded that problem-solving therapy, cognitive-behavioural therapy and treatment initiation and participation programmes were probably effective in the acute treatment of late-life major depressive disorder. The small number of available studies, concerns about the quality of the studies and the absence of in-depth statistical data make the reliability of the authors' conclusions unclear.

Authors' objectives
To evaluate the efficacy of psychosocial interventions in acute major depressive disorder in later life.

Searching
PubMed, PsycINFO and The Cochrane Library were searched up to 2010 for articles published in English. Search terms were reported. Several relevant reviews/meta-analyses were searched for studies.

Study selection
Randomised controlled trials (RCTs) of psychosocial interventions in adults with a diagnosis (criteria reported in the paper) of acute major mental disorder were eligible for inclusion. Studies had to comprise participants with an average age of 60 years or more. Outcomes eligible were depression or other associated measures (such as disability and quality of life). Articles that reported only interim analyses or assessed interventions at the organisational or systems level were excluded. Studies had to meet eight quality criteria from American Psychological Association (APA) Division 12 study criteria to be eligible for inclusion.

Included studies compared: cognitive-behavioural therapy (CBT) plus desipramine compared with CBT alone and desipramine alone; problem-solving therapy compared to supportive therapy; treatment initiation and participation programme compared to treatment as usual; and interpersonal psychotherapy compared to usual care. Most of the studies lasted 12 weeks. Mean participant age ranged from 66.85 years to 76 years. Outcomes reported were diagnosis of depression, severity of depression, disability, physical functioning and antidepressant adherence. Various measurement scales were used. It appeared that final outcomes were reported at the end of intervention.

The authors did not state how many reviewers performed the study selection.

Assessment of study quality
Eligible studies were assessed according to criteria from APA Division 12 study criteria.

The authors did not state how many reviewers carried out the validity assessment.

Data extraction
Data were extracted to demonstrate the direction and significance of effect.

The authors did not state how many reviewers extracted the data

Methods of synthesis
The studies were combined in a narrative synthesis and grouped according to strength of evidence and intervention type. Results were categorised as efficacious (significant positive results from two or more RCTs), probably efficacious (pending replication if there were significant positive results from one RCT or more than one RCT from the same group) and inconclusive (met neither criterion).

Results of the review
Six RCTs that contained four unique samples were included (534 participants). All studies were reported to meet all
quality criteria for study design and statistical criteria, but no results were presented.

**Interventions with evidence supportive of efficacy pending replication:** Problem solving therapy significantly reduced symptoms of depression at nine and 12 weeks (Cohen's d=0.24 and 0.39; one RCT, 221 participants). Problem solving therapy significantly reduced disability by 0.18 points per week on the World Health Organisation Disability Assessment Schedule compared to supportive therapy. One RCT (100 participants) found that CBT plus desipramine significantly reduced symptoms of depression compared to desipramine alone on the Hamilton Depression Rating Scale (-0.41 compared to -0.20) and Beck Depression Inventory (-0.44 compared to -0.10). CBT alone significantly reduced depression symptoms compared to desipramine alone (statistical results not reported). One RCT (70 participants) found that the treatment initiation and participation programme significantly reduced symptoms of depression compared to treatment as usual (statistical results not reported). Rates of adherence to antidepressant medication were higher with treatment initiation and participation than usual care (82% versus 43%).

**Interventions with inconclusive evidence:** Supportive therapy significantly reduced depression at 12 weeks and disability compared to baseline, but was less efficacious than problem-solving therapy. There were no significant differences between interpersonal therapy and usual care on response or remission rates or measures of depression symptoms.

Results were reported for predictors and moderators of outcome with psychosocial interventions in late-life major depression.

**Cost information**
One RCT (143 participants) reported no significant differences in total cost between interpersonal therapy and usual care at six months. Interpersonal therapy was not more cost-effective than usual care at six months.

**Authors’ conclusions**
Problem solving therapy, CBT and treatment initiation and participation were probably effective in the acute treatment of late-life major depressive disorder.

**CRD commentary**
The review addressed a clear question. Inclusion criteria for intervention and outcomes were broad and resulted in clinical heterogeneity between included studies. Several relevant databases were searched. It seemed that no attempts were made to identify unpublished data and the search was restricted to articles published in English. Hence, publication and language biases could not be ruled out. A validity assessment was performed as part of the inclusion criteria. But the checklist did not include some items commonly used to assess the validity of RCTs and it was not possible to fully determine the quality of included studies. It was unclear whether appropriate steps were taken during the review process to minimise reviewer error and bias.

The decision to combine studies in a narrative synthesis was appropriate given the small number of included studies and the heterogeneity between them. Statistical data were missing for some results and p values were not reported, which made it difficult for the reader to be sure of the significance of the findings. Only one RCT was available for each intervention, so it was not possible to draw clear conclusions about treatment efficacy. It seemed that outcomes were reported only up to the end of treatment and no conclusions could be drawn about longer term effectiveness of interventions. Most participants were white, middle class, educated, healthy and cognitively intact, so the results could not be generalised beyond these populations.

The small number of available studies, concerns about the quality of the studies and the absence of in-depth statistical data make the reliability of the authors’ conclusions unclear.

**Implications of the review for practice and research**
**Practice:** The authors did not state any implications for practice.

**Research:** The authors stated a need for further research in populations that are non-white, older than 80 years and with cognitive impairment and/or of low education. Exploration was needed for the application of interventions in non-traditional settings (such as patient's residence, assisted living facilities, nursing homes) taking into account the wider context (such as caregivers). Research was required on psychosocial interventions for major depressive disorder in...
populations with dementia, comparisons of supportive therapy with suitable placebos and moderators of treatment outcomes.

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