Do changes in coping style explain the effectiveness of interventions for psychological morbidity in family carers of people with dementia? A systematic review and meta-analysis

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CRD summary
This review found that group interventions to improve coping skills reduced psychological symptoms in carers, but also increased dysfunctional coping in the short term. This conclusion reflects the evidence presented, but its limitations should be taken into account when interpreting the findings.

Authors’ objectives
To determine whether interventions that reduced psychological symptoms, in family carers of people with dementia, also improved their coping ability.

Searching
The authors searched seven databases, including MEDLINE, PsycINFO and The Cochrane Library, to July 2011. Search terms were reported. Reviews and reference lists were searched and study authors were contacted to identify further studies. Only publications in English were eligible for the review.

Study selection
Randomised controlled trials (RCTs) of any intervention were eligible if they reported initial and follow-up measures of anxiety or depression, and coping, in family carers of people with dementia. Trials had to use standardised quantitative measures of coping.

All except one of the included trials were conducted in North America. Most participants were women. Interventions included group coping skills, dyadic counselling, cognitive stimulation therapy, individual behavioural management and remotely delivered interventions. Trial duration ranged from one to eight months. Control groups in most trials were on a waiting list or received minimal telephone support. Anxiety, depression and coping were assessed using a variety of different scales.

It appears that two independent reviewers selected studies for inclusion.

Assessment of study quality
Quality was assessed using a checklist adapted from the Critical Appraisal Skills Programme. Trials that met the three criteria that were considered most important (valid and reliable measure of coping; blinding of trial personnel; and accounting for all participants) were rated high quality.

Quality was assessed by two independent reviewers; disagreements were resolved by discussion with a third reviewer.

Data extraction
Data were extracted to calculate the mean differences between groups for depressive symptoms, anxiety and coping. Coping was classified as positive (solution-focused or emotional support, and acceptance-based) or dysfunctional.

Authors were contacted for additional data if necessary.

Two reviewers extracted the data for the review; disagreements were resolved by discussion with a third reviewer.

Methods of synthesis
Where sufficient data were available from the trials, they were pooled by meta-analysis using a fixed-effect model. A narrative synthesis was presented for other interventions.

Results of the review
Eight RCTs with 1,043 participants were included. All studies used valid and reliable coping measures and four met all three of the main quality criteria. Three trials had follow-up beyond their endpoint (up to six months).
Two remotely delivered interventions significantly decreased depression or anxiety symptoms, but there was no effect on solution-focused or dysfunctional coping.

Group coping skills interventions (with or without behavioural activation) provided enough data for meta-analysis. Two RCTs (144 participants) reported on interventions without behavioural activation, and three RCTs (364 participants) evaluated interventions with behavioural activation. Both types of intervention significantly reduced depressive symptoms, but also significantly increased dysfunctional coping. Positive coping increased with group coping skills interventions and behavioural activation. There was marked statistical heterogeneity ($\chi^2$ range 67% to 88%) in some of these analyses.

**Authors’ conclusions**
Group coping skills interventions increased dysfunctional coping in the short term, but this did not prevent depression and anxiety from improving.

**CRD commentary**
The review question was clear and was supported by appropriate inclusion criteria. The search covered a range of relevant sources. The restriction to English-language publications means that some relevant trials could have been omitted. Methods to reduce reviewer error and bias were used. Trial quality was assessed using appropriate criteria.

The meta-analysis used a fixed-effect model, which the authors justified on the grounds that most trials had similar populations and interventions. However, some of the meta-analyses had marked statistical heterogeneity and this was neither investigated nor discussed in the paper. As acknowledged by the authors, the meta-analyses involved relatively few trials and participants.

The authors’ conclusions reflect the evidence presented, but its limitations weaken their reliability and should be taken into account when interpreting the findings.

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

**Research:** The authors stated that further trials were needed to investigate interventions to increase family carers’ use of emotional support and acceptance-based coping strategies.

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