Interventions to reduce the burden of caregiving for an adult with dementia: a meta-analysis

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Authors' objectives
To evaluate, using meta-analytic techniques, intervention strategies designed to help caregivers cope with the burden of caregiving.

Searching
MEDLINE, CINAHL, PsycINFO, ERIC, Social Sciences Index and Social Science Abstracts were searched from inception to 1999, using the following keywords: 'caregiver', 'caregiving', 'dementia' and 'Alzheimer's disease'. In addition, the reference lists of retrieved studies were checked and researchers in the field were contacted.

Study selection
Study designs of evaluations included in the review
Experimental, quasi-experimental, and single-group pre-test post-test study designs were included in the review.

Specific interventions included in the review
Interventions tested to lessen the caregiving outcome of burden were included in the review. These included support group, education, psychoeducation, counselling, respite care and multi-component interventions.

Participants included in the review
The participants included in the review were adults providing care to a family member with dementia.

Outcomes assessed in the review
Reduction in burden scores, represented by a positive effect size, were used in the analyses.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
Based on two published checklists, the studies were assessed using quality indicators such as study design, sample selection, eligibility criteria, descriptions of interventions and outcome measures, reports of outcome measurement, and outcome measurement frequency. The studies were assessed on a scale of 0 to 21. The authors did not state how the papers were assessed for quality, or how many reviewers performed the quality assessment.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. Effect sizes were calculated for each individual treatment group.

Methods of synthesis
How were the studies combined?
Pooled effect sizes were calculated for all studies and each intervention type, design type and outcome measure.

How were differences between studies investigated?
All of the pooled analyses were tested for homogeneity.

Results of the review
Twenty-four published research reports testing 27 treatments were included: 13 experimental, 4 quasi-experimental, and 10 single-group pre-test post-test. In total, 1,254 participants (866 in experimental groups, 388 in control groups) were included in the review.

Individually, only 1 respite and 1 multi-component intervention showed a significant positive effect. Collectively, the 27 interventions had no effect on caregiver burden. When pooled by intervention type, only the multi-component category (n=3) significantly reduced caregiver burden.

Authors' conclusions
Burden may be too global an outcome to be affected consistently by intervention. Better and more precise measures are needed to evaluate the effects of caregiver interventions properly.

CRD commentary
The review used clear search and inclusion criteria to answer a relevant question. The search was reasonably wide ranging and is unlikely to have missed many relevant studies. Several aspects of the review process were not described. The handling of the meta-analysis was appropriate. The authors' conclusions appear well founded.

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

Research: The authors stated that researchers should explore outcomes other than burden that are amenable to change after intervention.

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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.