A systematic review of intervention studies about anxiety in caregivers of people with dementia

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CRD summary
The authors concluded that there was little evidence that interventions were effective in reducing anxiety among caregivers and further research is required. Review methods were poorly reported and study quality was not adequately assessed. However, the authors' conclusions appear to reflect the limitations of the evidence presented.

Authors' objectives
To evaluate interventions that may reduce anxiety among caregivers of people with dementia.

Searching
AMED, British Nursing Index, CINAHL, EMBASE, MEDLINE and PsycINFO were searched in June 2005 using the reported search terms. In addition, the reference lists of included studies and relevant systematic reviews were screened and experts in the field were contacted for details of further studies. Only studies published in the English language were included. Dissertation abstracts were excluded.

Study selection
Study designs of evaluations included in the review
Qualitative studies and single-case studies were excluded. The included studies were randomised controlled trials (RCTs), non-randomised controlled trials and cohort studies.

Specific interventions included in the review
Inclusion criteria were not specified in terms of the interventions but it was clear that interventions that targeted caregivers were eligible for inclusion. The included studies evaluated group cognitive-behavioural therapy (CBT), behavioural management techniques (BMT), the provision of information technology (IT) support for caregivers, exercise therapy, the provision of additional professional support for caregivers, respite care, relaxation and yoga, individual CBT, group psychotherapy, full-time care for the caregiver and current statutory UK service provision. Control treatments, where these existed, included support group, usual treatment, workshops, refusals, waiting list, information, nutritional support and non-users of interventions.

Participants included in the review
Studies of informal caregivers of people with any type of dementia were eligible for inclusion. Some of the included studies restricted participants to more anxious caregivers; other studies reported no such restrictions. Some studies recruited participants through media advertisements, while others recruited participants who had sought help.

Outcomes assessed in the review
Studies that used validated measures to assess anxiety were eligible for inclusion. The included studies used a variety of validated measures of anxiety; the most commonly used was the Speilberger State-Trait Anxiety Inventory (details of all measures were reported). Outcomes were assessed from immediately post-treatment up to 15 months.

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
Validity was not fully assessed.
Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. For each study, the difference in anxiety between treatment groups was reported as statistically significant or not.

Methods of synthesis
How were the studies combined?
Only studies graded level 2 or above (good-quality cohort or RCT) according to the Centre for Evidence-Based Medicine (CEBM; accessed 30/10/2007; see Web Address at end of abstract) were combined. The studies were grouped by type of intervention, and the level of evidence for each intervention was graded using a hierarchy of evidence described by the CEBM. Grade A was consistent evidence from level 1 studies; grade B, consistent evidence from level 2 or 3 studies; grade C, evidence from level 4 studies or extrapolation from level 2 or 3 studies; grade D, evidence from level 5 studies or inconsistent or inconclusive evidence from studies of any level.

How were differences between studies investigated?
The results of level 2 studies were discussed separately from those of level 4 and 5 studies.

Results of the review
Twenty-four studies (n=1,558) were included: 10 RCTs (n=691), 7 studies with a control group (design unclear) (n=514) and 7 studies without a control group (n=353).

In terms of study quality, all of the studies had methodological limitations. In only one was anxiety the primary outcome.

Group CBT (3 RCTs): one of the 3 studies that compared group CBT with waiting-list control or support group reported a significant reduction in anxiety among caregivers with the intervention; this RCT was the only study that targeted anxiety. The other 2 RCTs reported no difference in anxiety post-intervention between the different intervention groups.

BMT (3 RCTs): none of these RCTs reported any significant difference in caregiver anxiety between BMT and control groups.

Provision of IT support for caregivers (1 RCT): no significant difference in caregiver anxiety between IT support and control groups was reported.

Exercise therapy (2 RCTs): neither of these studies reported any significant difference in caregiver anxiety between exercise and control groups.

Providing additional professional support for caregivers (1 RCT and 1 non-randomised study: the RCT reported no significant difference in caregiver anxiety between additional support and control groups, while the non-randomised controlled trial reported that support from Admiral Nursing significantly reduced anxiety compared with community health services.

Respite care (1 RCT and 1 cohort study): neither study reported any significant difference in caregiver anxiety between respite care and control groups.

Authors’ conclusions
There was little evidence that interventions were effective in reducing anxiety among caregivers. Further research is required.

CRD commentary
The review addressed a clear question that was defined in terms of the participants and outcomes; inclusion criteria for
the study design and intervention were broad. Several relevant sources were searched but the review was restricted to studies published in English, so there is a possibility of publication and language bias. Methods were used to minimise reviewer error and bias in the classification of study design, but it was not clear whether similar steps were taken at the study selection and data extraction stages. Validity was not assessed, which makes it difficult to determine the reliability of the evidence presented.

In view of the differences between the studies, a narrative synthesis with studies grouped by study design and type of intervention was appropriate. Review methods were incompletely reported, the study design was not always clearly stated and study quality was not assessed. However, the authors’ conclusions seem to reflect the limitations of the evidence presented and their recommendations for further research appear justified.

**Implications of the review for practice and research**

Practice: The authors did not state any implications for practice.

Research: The authors stated that good-quality RCTs are needed to evaluate interventions specifically aimed at reducing anxiety among caregivers; such interventions could include yoga and relaxation. Interventions that specifically target anxiety may be required.

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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.