Intervention studies for caregivers of stroke survivors: a critical review

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CRD summary
This review assessed the effects of interventions for caregivers of stroke patients. The authors concluded that there was insufficient evidence to assess the efficacy of interventions and that further research is required. There were limitations to the review but, overall, the authors' conclusions appear to reflect the limited evidence.

Authors' objectives
To assess the effects of interventions for caregivers of stroke patients.

Searching
MEDLINE, PsycINFO, AMED and CINAHL were searched from inception to March 2003 for studies reported in English, German or Dutch; the search terms were reported.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs), clinical trials and uncontrolled trials with pre- and post-intervention measurements were eligible for inclusion.

Specific interventions included in the review
Studies of interventions for caregivers of stroke patients were eligible for inclusion. The authors did not state the types of intervention that were eligible. In most of the included studies the intervention was focused on stroke patients and caregivers; only 6 studies were targeted at caregivers only. Most interventions started during or a short time after discharge from hospital. The review classified interventions as providing specialist services to facilitate and improve discharge, (psycho)education, counselling and peer support.

Participants included in the review
Studies of caregivers of stroke patients were eligible for inclusion. In the included studies, the time since the patients' stroke varied from immediately to a few years post-stroke. The caregivers in the majority of studies were spouses and adult children. Most studies did not report the characteristics of the caregivers.

Outcomes assessed in the review
Studies that assessed outcomes for caregivers were eligible for inclusion. Most of the studies assessed more than one outcome measure. The studies assessed quality of life, emotional state, burden, family functioning, social activity in daily life, coping, satisfaction with care, knowledge and social support (details of the measures used were reported).

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

Assessment of study quality
The authors did not formally assess validity, but they did mention study design and description of withdrawals and dropouts.

Data extraction
Two authors extracted the data on study design, intervention, outcome domains and results. The results were classified as positive (statistically significant treatment difference, with P<0.05, in favour of the intervention), zero (no difference between treatments), or negative (significant difference in favour of the control group).
Methods of synthesis
How were the studies combined?
The studies were grouped by results (positive or negative) and type of intervention and pooled in a narrative synthesis.

How were differences between studies investigated?
Differences between the studies were discussed.

Results of the review
Twenty-two studies (at least 2,435 patients) were included: 18 RCTs (at least 2,086 patients), 2 non-randomised comparative studies (n=231) and 2 uncontrolled studies (n=118).

Not all of the studies reported withdrawals and drop-outs.

Outcomes.
Overall, 10 studies reported positive outcomes on at least one measure. Studies found positive outcomes for depression (2 studies), knowledge (5 studies), satisfaction with care (1 study), family functioning (1 study), quality of life (3 studies), problem-solving skills (2 studies), social activities in daily life (2 studies), social support (2 studies) and burden (2 studies).

Three studies reported negative outcomes for caregivers. The studies found poorer general health with an early discharge and community rehabilitation team (1 study), more dissatisfaction with information and higher caregiver burden for an integrated care pathway (1 study), and poorer social functioning with a stroke education programme (1 study).

Type of intervention.
Facilitating and improving discharge: 4 of the 12 studies showed significant improvements for the caregiver.

(Psych)education: 4 of the 6 studies showed improvements for the caregiver. Counselling: 3 of the 4 studies showed improvements for the caregiver.

Peer support: the only study using peer support found no difference in caregiver outcomes.

Authors’ conclusions
There was insufficient evidence to assess the efficacy of the interventions. More positive outcomes were found for counselling interventions. Further research is required.

CRD commentary
The review addressed a fairly broad research question and defined inclusion criteria in terms of the participants, intervention, outcomes and study design. Several relevant sources were searched and attempts were made to minimise language bias. No attempt was made to locate unpublished studies, thus raising the possibility of missing relevant data and publication bias. Methods were used to minimise errors and bias in the extraction of data, but it was unclear whether similar steps were taken at the study selection stage. The validity assessment was inadequate.

Combining the studies in a narrative was appropriate given the differences between them. Potential reasons for studies showing negative effects were discussed. The authors also discussed some of the limitations of the review, including the difficulty of dealing with primary studies reporting multiple outcomes using different measures. There were limitations to the review but, overall, the authors’ conclusions about the limitations of the evidence and need for further research are supported by the review.
Implications of the review for practice and research
Practice: The authors stated that the emphasis in caregiver interventions should be on individual needs of the caregiver, and that active problem-solving and approaches for seeking support should be promoted.

Research: The authors stated that further higher quality research is required. They stated that research should be targeted at caregivers after an assessment of caregivers needs; should use interventions based on caregivers needs with booster sessions; should examine different groups of caregivers (spouses versus other family members) separately; and should assess the effect of the caregiver intervention on the stroke patient.

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Other publications of related interest
This additional published commentary may also be of interest. Boaro N, Velji K. Review: counselling and education may improve outcomes in caregivers of patient with stroke. Evid Based Nurs 2005;8:119.

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Subject indexing assigned by NLM

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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.