The effectiveness of caregiver psychosocial interventions on the psychosocial wellbeing, physical health and quality of life of stroke family caregivers and their stroke survivors: a systematic review
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CRD summary
The authors concluded that there was evidence of positive effect of psychosocial interventions on family functioning of caregivers. Although the review was largely well-conducted, the authors' conclusion does not fully reflect the review findings and may be misleading about the true value of the psychosocial interventions reported.

Authors' objectives
To evaluate the effectiveness of caregiver psychosocial interventions on the psychosocial well being, physical health, and quality of life of stroke family caregivers and their stroke survivors.

Searching
Listed in the paper, over 30 databases (English and Chinese) were searched from inception up to March 2011. Various other listed sources were handsearched. Published and unpublished studies were sought. Search terms and selected full search strategies were reported. Reference lists and bibliographies of all relevant articles were searched.

Study selection
Eligible for inclusion were randomised controlled trials (RCTs) or pseudo-RCTs that evaluated the effects of psychosocial interventions for family caregivers on the psychosocial well-being, physical health, and quality of life of stroke survivors living in the community after discharge from hospital treatment and their stroke family caregivers. Secondary outcomes of interest included family functioning, satisfaction with healthcare services, and hospital re-admission of stroke survivors. Prospective observational studies, historical cohort studies, and pre- and post-test studies were also considered. Participants had to be aged 18 years or older. A wide range of psychosocial interventions were eligible. Further selection criteria details were reported in the paper.

Approximately half of the included studies were conducted in the USA, and others were carried out worldwide (one in the UK) from 1988 to 2010. Settings included acute inpatient, home, community, and the transitional phase between inpatient to community. The mean age of caregivers ranged from 47.9 years to 71.3 years; most were women who were the spouse of stroke survivors. The mean age of stroke survivors ranged from 61.1 years to 74.4 years; most were male and were recovering from their first stroke (where reported). Interventions included psychoeducation (involving information provision with caregiving skills training, physical exercise training, or therapeutic weekend), counselling, or social support group. Further details (including intervention providers and dose) were reported in the paper. Various outcome measures were used.

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

Assessment of study quality
Study quality was assessed using critical appraisal checklists from the Joanna Briggs Institute-Meta Analysis of Statistical Assessment and Review Instrument (JBI-MAStARI).

Two reviewers independently carried out the quality assessment. Disagreements were resolved by joint assessment and discussion with a third reviewer.

Data extraction
Data were extracted to calculate mean differences or standardised mean differences and 95% confidence intervals. Authors were contacted for further information, where necessary.

This process was conducted independently by two reviewers using a modified version of the JBI-MAStARI data extraction form. Disagreements were resolved by discussion.
Methods of synthesis
Where possible, standardised mean differences were presented in a fixed-effect meta-analysis, together with 95% confidence intervals. A random-effects model was used where there was substantial heterogeneity ($I^2$ exceeded 50%). Where meta-analysis was not possible, a narrative synthesis was presented.

Results of the review
Eighteen studies (including 1,723 family caregivers and 1,836 stroke survivors) were included in the review, comprising 15 RCTs or pseudo-RCTs, two comparative historical cohort studies, and one prospective pre-and post-test design. Several risks of bias were noted amongst the included studies; the authors concluded that overall quality was fair.

There were no statistically significant effects of caregiver psychosocial interventions on any of the primary outcomes (physical health, psychosocial well being, and quality of life). For secondary outcomes, there was a statistically significant improvement for caregivers immediately after a counselling intervention in family functioning (SMD -0.12, 95% CI -0.23 to -0.01; two studies; no significant heterogeneity). Caregivers were more satisfied with psycho-education compared with those in control groups (two studies).

Further results were reported in the review.

Authors' conclusions
There was evidence of positive effect of psychosocial interventions on family functioning of caregivers.

CRD commentary
The review question was clear and inclusion criteria were specified in sufficient detail to allow replication. A wide search strategy had substantial scope to locate relevant studies for inclusion. Steps were taken to minimise error and bias in the processes of data extraction and quality assessment. This process was not reported for study selection.

Appropriate quality assessment criteria were applied to included studies; the results of this were summarised with sufficient clarity. Study details were presented. Heterogeneity was taken into account in the chosen methods of synthesis. Intervention effects were very limited overall, and none were related to the primary outcomes of interest.

Whilst the review was largely well-conducted, the authors' conclusion does not fully reflect the findings, and may be misleading as to the true value of the psychosocial interventions reported.

Implications of the review for practice and research
Practice: The authors stated that to help family caregivers care for their stroke survivors at home, use of psychotherapeutic techniques, education, and care giving skill training might be included in the components of psychosocial interventions. The appropriate intervention dose would be 60 minutes per session in a total of 3 to 9 sessions in approximately three months.

Research: The authors stated that, given the diversity of current interventions, well-designed randomised controlled trials were needed to further examine the optimal dose and format of psychosocial interventions, using standardised and validated outcome measures. Trials should report demographic and historical data for caregivers and stroke survivors, and also consider the positive outcomes of caregiving.

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