Social support in diabetes: a systematic review of controlled intervention studies

CRD summary
This review assessed the effects of social support interventions in people with type 2 diabetes. The authors concluded that there was cautious support for specific social support interventions in patient self-care and diabetes outcomes. The review methods and study results were not reported in full, making it difficult to adequately assess the robustness of the authors’ conclusions.

Authors’ objectives
To assess the effects of social support interventions on health outcomes in people with type 2 diabetes in primary and out-patient care.

Searching
MEDLINE, the Cochrane Library, ERIC, PsycINFO and EMBASE were searched from 1980 to 2003 using the reported search terms. Studies published in languages other than English were eligible. The reference lists of retrieved reports were screened.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) and quasi-experimental studies with a pre-test post-test design were eligible for inclusion. The included studies followed up patients for a mean of 16.5 months (range: 3 to 30).

Specific interventions included in the review
Studies of specific social support interventions were eligible for inclusion. The included studies used a variety of social support interventions: group support from peers during consultation with a physician, peer group support that included telephone calls, organised Internet peer group plus personal coach support, and support from peers, spouse, family and friends in diabetes education. All of the included studies compared interventions with usual diabetes care or education.

Participants included in the review
Studies of patients with type 2 diabetes in primary care or hospital out-patient care were eligible for inclusion. Studies in hospital in-patients were excluded. Where reported, the mean age of the participants was 59.3 years and the mean duration of diabetes was 9.2 years.

Outcomes assessed in the review
Studies that assessed care outcomes were eligible for inclusion. The included studies assessed a variety of outcome measures. The review classified outcomes as behaviour (e.g. physical activity), psychosocial and quality of life (e.g. perceived support and use of social support), knowledge of diabetes mellitus and biomedical (e.g. glycated haemoglobin, risk factors, lipids and weight change). Most of the included studies assessed social support using questionnaires; others measured interactions.

How were decisions on the relevance of primary studies made?
Two reviewers conducted searches; no other details of the study selection process were reported.

Assessment of study quality
Studies were assessed and scored using a modified version of criteria described by Van Tulder. Randomisation, blinding, drop-outs, similarity of the groups at baseline, description of the interventions, compliance, outcome measures and analysis were assessed. The maximum possible score was 19 points. Three reviewers independently
assessed validity. Any disagreements were resolved by discussion until consensus was reached.

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 outcome measures, scoring methods and number of drop-outs were extracted. The results for each study were reported according to the type of outcome measure and the effect shown: positive effect; positive effect on more than one outcome; positive and negative effects, or minimal positive effect; and no effect.

Methods of synthesis
How were the studies combined?
The studies were ordered by quality score and each study was described. The studies were also combined in a narrative, accompanied by a table of results.

How were differences between studies investigated?
Differences between the studies were described in the text and were discussed with respect to sources of support and participant gender.

Results of the review
Six RCTs (n=712) were included. The sample sizes ranged from 32 to 200.

The studies scored from 13.5 to 18.0 points for quality out of a possible 19 points.

According to the highest quality study, group visits to the physician were found to improve behaviour outcomes, psychosocial and quality of life outcomes, knowledge of diabetes and biomedical outcomes (diabetes control and lipids), compared with usual individual visits.

Compared with educational pamphlets by mail, the peer group and peer counsellor intervention was found to improve behavioural outcomes (physical activity), but had no effect on biomedical outcomes and had mixed positive and negative outcomes, or a minimal positive effect, on psychosocial and quality of life outcomes and knowledge of diabetes.

Internet peer support alongside an internet personal coach was found to improve psychosocial and quality of life outcomes (perceived support) compared with internet access without social or individual support.

The inclusion of spouse participation in diabetes education was found to improve behaviour outcomes (physical activity), psychosocial and quality of life outcomes (use of social support), and biomedical outcomes (weight loss for women). However, men in ‘alone’ groups lost more weight than those in groups with spouses.

Social support group sessions following diabetic education had a positive effect on more than one psychosocial and quality of life outcome measure and knowledge of diabetes, but had no effect on biomedical outcomes.

According to the poorest quality study, family and friend participation in diabetes education had no effect on biomedical outcomes.

Authors’ conclusions
There was cautious support for the effect of specific social support interventions in patient self-care and diabetes outcomes. Involving spouses may help obese women with type 2 diabetes to lose weight, while group consultations with care providers may improve diabetic control.

CRD commentary
The review addressed a clear question that was defined in terms of the participants, intervention and study design;
inclusion criteria for the outcomes were appropriately broad. Several relevant sources were searched and attempts were made to limit the possibility of publication and language bias. Methods were used to minimise reviewer errors and bias in the validity assessment process. However, the methods used to select studies were not reported in full and those used to extract the data were not described, so it is not known whether any efforts were made to reduce reviewer errors and bias in these processes. Study validity was assessed using a quality scoring system with appropriate quality criteria, and the quality of the included studies was generally good.

The results of the individual studies were not reported in full. In addition, it was unclear whether or not study effects classified as 'positive' referred only to statistically significant effects. A narrative synthesis was appropriate in view of the diversity of the studies, and the synthesis took account of the study quality scores. The lack of a full report of the review methods and study results makes it difficult to adequately assess the robustness of the authors’ conclusions.

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

Practice: The authors stated that providers of diabetic care should encourage open communication with patients about social support and should discuss what patients want and need from social support. They also stated that teams caring for people with diabetes could consider offering some newer forms of social support to their patients, such as patient group consultations with care providers, peer social support group sessions in or following diabetic education programmes, and internet- or telephone-based peer support and counselling programmes.

Research: The authors stated that well-designed studies are required to select the most effective forms, sources, components and deposits of social support, to help improve patient self-care and coping and outcomes of diabetes care in general practice, family medicine and out-patient care.

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