Group cognitive behavioural therapy for postnatal depression: a systematic review of clinical effectiveness, cost-effectiveness and value of information analyses

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CRD summary
This review found some evidence that group cognitive behaviour therapy was effective in reducing postnatal depression compared with routine primary care. Uncertainty about various aspects of the included studies limited interpretation of the results. The authors’ conclusions reflect the limitations of the evidence presented and seem appropriate.

Authors' objectives
To evaluate the effectiveness of group cognitive-behaviour therapy (CBT) compared with currently used packages of care for women with postnatal depression.

Searching
The authors searched 17 electronic databases (listed) from 1950 or inception to January 2008. Search terms were reported. They also searched research and trials registers and consulted health service research and guideline producing bodies. Grey literature was identified by searches of databases including dissertation abstracts. Only English-language studies were included.

Study selection
Quantitative and qualitative studies of any design were eligible for the review of effectiveness. Participants had to be women who had given birth in the previous 12 months and either met standardised diagnostic criteria for postnatal depression or scored above a cut-off on the Edinburgh Postnatal Depression Scale (EPDS). All interventions with elements described as based on cognitive behavioural principles (including psychoeducation) and conducted in a group setting were eligible. The main outcome for the quantitative review was change in depression measured using EPDS or Beck Depression Inventory.

Included studies varied in the details of the intervention and quality of reporting. Only one intervention was guided by detailed manuals. Other interventions were used alongside group CBT in some studies. Where reported, treatment duration ranged from eight to 12 weeks (one session per week) and group size ranged from four to 20. Comparators were usual care, routine primary care and waiting list group. Studies were carried out in Australia, Chile, UK (one study) and USA.

Final decisions on inclusion or exclusion of studies were made by two reviewers independently. Disagreements were resolved by discussion, with reference to a third reviewer if necessary.

Assessment of study quality
Quantitative studies were assessed using the Downs and Black checklist for reporting, internal and external validity and statistical power. Qualitative studies were assessed using the qualitative version of the Critical Appraisal Skills Programme.

The authors did not explicitly state how many reviewers performed the assessment.

Data extraction
For the quantitative review, data on depression outcomes in group CBT and comparator groups were extracted by one reviewer using a standardised form. Data from qualitative studies were extracted by two reviewers using a different form. Disagreements were resolved by discussion.

Methods of synthesis
Quantitative and qualitative studies were synthesised using a narrative approach. Meta-analysis of quantitative data was
planned, but was considered inappropriate because of differences between the included studies. These differences were discussed in the report.

**Results of the review**

Six quantitative studies were included in the review: three (n=467 participants) randomised controlled trials (RCTs) and three (n=205) non-randomised controlled trials. All three RCTs reported methods of randomisation and numbers lost to follow-up. Two RCTs reported blinded outcome assessment and a power calculation. Reporting of results was generally poor. Two qualitative studies were included.

**Quantitative review:** The study considered most relevant to the decision problem (n=45) reported that EPDS score was reduced by 3.48 (95% confidence interval 0.23 to 6.73) in the CBT group compared with routine primary care at the end of treatment. At six-month follow-up the reduction was 4.48 (95% confidence interval 1.01 to 7.95). Three studies showed group CBT to be effective in reducing depression compared with routine primary care, usual care and being on a waiting list.

**Qualitative review:** Both included studies found that group CBT was acceptable to patients, although negative feelings towards the treatment were also identified.

**Cost information**

Current treatment costs were estimated to be between £1,700 and £2,225 per patient for 25 hours of treatment. An economic model developed as part of the assessment indicated a cost per quality-adjusted life year of £46,462 (95% CI £37,008 to £60,728) for group CBT compared with routine primary care under the base-case assumptions. This estimate was subject to considerable uncertainty.

**Authors’ conclusions**

The included studies provided some indication that group CBT was effective compared with routine primary care. Uncertainty about study quality, the level of CBT implemented in the studies and applicability to a postnatal depression population limited interpretation of the results.

**CRD commentary**

The review question and inclusion criteria were clear. The search was thorough and included attempts to locate grey literature and unpublished studies. The restriction to studies in English meant that some relevant studies may have been missed. Measures to minimise reviewer errors and bias were applied to study selection and data extraction, but were not reported for validity assessment. Criteria used for validity assessment were appropriate. Full details of included studies were presented in the report. The authors' decision to present a narrative synthesis was appropriate in view of the heterogeneity and reporting limitations of the included studies. Most included studies were conducted outside UK, so their generalisability to UK settings was uncertain.

The authors’ conclusions reflect the limitations of the evidence presented and seem appropriate.

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

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

**Research:** The authors stated that there was a need for large-scale trials that compared group CBT with routine primary care and individual CBT; efficacy should be assessed using a utility measure. Research should be undertaken to obtain a more robust estimate of the cost of group CBT treatment.

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Record Status
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.