

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

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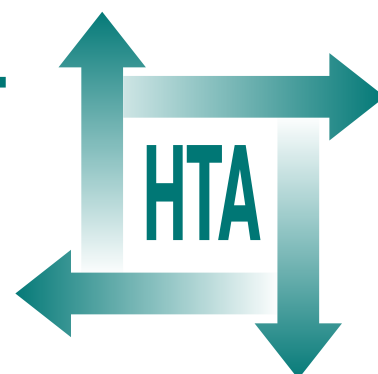
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Executive summary

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Executive summary

Background

Postnatal depression (PND) describes a wide range of distressing symptoms that can occur in women following childbirth. A clinical diagnosis of the disorder is often made using the *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition* which describes a range of diagnostic categories indicative of a depressive disorder. There is substantial evidence to support the use of cognitive behaviour therapy (CBT) in the treatment of depression, and psychological therapies are recommended by the National Institute for Health and Clinical Excellence as a first-line treatment for PND. However, access is limited owing to expense, waiting lists and availability of therapists. Group CBT may, therefore, offer a solution to these problems by reducing therapist time and increasing the number of available places for treatment.

Objectives

The overall aims of the review were to evaluate the clinical effectiveness and cost-effectiveness of group CBT compared with currently used packages of care for women with PND.

Methods

Clinical effectiveness

A systematic review of the literature was performed to identify all studies describing trials of group CBT for PND. Databases were searched (for example MEDLINE, MEDLINE In-Process & Other Non-Indexed Citations, EMBASE, PsycINFO, etc.) from 1950 to January 2008 for both quantitative and qualitative studies.

Cost-effectiveness

A systematic review of the literature was performed to identify all cost-effectiveness studies of group CBT for PND. Databases were searched from 1950 to January 2008.

Results

Number and quality of studies

Clinical effectiveness

Six studies met the inclusion criteria for the quantitative review. Three were randomised controlled trials (RCTs) and three were non-randomised trials. Two studies met the inclusion criteria for the qualitative review. These were both treatment evaluations incorporating qualitative methods.

Cost-effectiveness

No studies were identified that were deemed relevant to the decision problem.

Evidence of effectiveness

Clinical effectiveness

Six studies of group CBT for PND were included in the quantitative review as part of a narrative analysis. Only one study was deemed appropriate for the decision problem; therefore a meta-analysis was not performed. This study indicated that the reduction in the Edinburgh Postnatal Depression Scale (EPDS) score through group CBT compared with routine primary care (RPC) was 3.48 [95% confidence interval (CI) 0.23 to 6.73] at the end of the treatment period. At 6-month follow-up the relative reduction in EPDS score was 4.48 (95% CI 1.01 to 7.95). Three studies showed the treatment to be effective in reducing depression when compared to RPC, usual care or waiting list groups. There was no adequate evidence on which to assess group CBT compared with other treatments for PND. Two studies of group CBT for PND were included in the qualitative review. Both studies demonstrated patient acceptability of group CBT for PND, although negative feelings towards group CBT were also identified.

Cost-effectiveness

A de novo economic model was constructed to assess the cost-effectiveness of group CBT.

Summary of cost-effectiveness

The base-case results indicated a cost per quality-adjusted life-year (QALY) of £46,462 for group CBT compared with RPC. The 95% CI for this ratio ranged from £37,008 to £60,728. There was considerable uncertainty in the cost per woman of running a CBT course, of the appropriateness of efficacy data to the decision problem, and the residual length of benefit associated with group CBT. These were tested using univariate sensitivity analyses. Supplementary analyses that fitted distributions to the cost of treatment and the duration of comparative advantage reported a cost per QALY of £36,062 (95% CI £20,464 to £59,262).

Sensitivity analyses

The cost of running a group CBT course, the assumed efficacy of group CBT and the length of residual benefit all markedly affected the results; plausible combinations of these values would produce cost per QALY values below currently used thresholds. Expected value of information analyses were undertaken. These showed that there was expected to be a considerable benefit in conducting further research, particularly regarding the cost of treatment and the relationship between changes in values of the EPDS and changes in the value of the Short Form questionnaire-6 Dimensions (SF-6D).

Discussion

Strengths, limitations and uncertainties of the analyses

A strength of our work is that an estimation of the cost-effectiveness of group CBT for PND in the UK has been calculated; previously such estimates have not been published. Furthermore, a relationship between a change in EPDS score and utility has been estimated, although the correlation is only moderate. We believe that such a relationship has not previously been published. The analyses have shown that the cost per QALY is heavily dependent on the cost per woman treated with group CBT and the assumed relationship between changes in EPDS values and changes in SF-6D values.

Limitations include the dearth of RCT evidence to assess the effectiveness of group CBT for PND. The available evidence was in some cases of low quality due to poor reporting. Some of the included studies failed to provide adequate information about the exact nature of the CBT element of the intervention, concurrent treatment in the intervention group, and patient characteristics

such as time postpartum. These factors may have significant implications for the generalisability of the findings. Furthermore, the potentially small number of health visitors involved in delivering the group CBT assumed applicable to the UK setting may provide severe limitations in generalising the results to other health visitors.

No robust comparisons between group CBT and individual CBT, or between group CBT and other group therapies, were found. For the quantitative analyses only one RCT was considered appropriate for meta-analysis and this had only 45 participants. A further limitation is that utility measurements were not recorded in the RCTs, thus benefits were estimated from a regression of the relationship between EPDS and SF-6D.

As such there is considerable uncertainty in the estimated efficacy of group CBT compared with RPC. This, and uncertainties in the costs of conducting group CBT and in the duration of benefit, mean that the cost-effectiveness of group CBT for PND is uncertain.

Conclusions

Implications for service provision

Evidence from the clinical effectiveness review provides inconsistent and low quality information on which to base any interpretations for service provision. Although three of the included studies provide some indication that group psycho-education incorporating CBT is effective compared with RPC, there is enough doubt in the quality of the study, the level of CBT implemented in the group programmes, and the applicability to a PND population to limit any interpretations significantly.

It is also considered that the place of group CBT in a stepped care programme needs to be identified, as well as there being a need for a clearer referral process for group CBT. There is also a requirement to make clearer assessments of the facilitators and resources required for group CBT, including training needs, and to provide a clear method of assessing suitable participants for the treatment.

Suggested research priorities

The key research priorities would be to determine the cost per woman of providing group CBT were it to be widely available, collection of paired data for EPDS and a utility measure such as the

SF-6D, to determine the effectiveness of group CBT compared with RPC and individual CBT (preferably in terms of a utility measure to obviate the transformation from the EPDS) and to determine the duration of comparative advantage by following up the women 1 year, or longer, after randomisation.

If the sample size is large enough, data on the following aspects should be recorded: the effect of the size of the participant group; the effect of the session duration; the effect of the setting; the qualifications and involvement of the facilitator; the effectiveness of group CBT on the different subtypes of PND; whether effectiveness is

dependent on patient background, comorbidity, the number of children, previous PND, pre-pregnancy or antenatal depression; and the indirect effects of the treatment on the infant and other family members.

Publication

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