Cost utility of behavioural activation delivered by the non-specialist
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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

CRD summary
The objective was to assess the cost-effectiveness of behavioural activation, delivered by non-specialists, for the treatment of depression. The authors concluded that behavioural activation could provide good value for money, but a larger study was necessary to confirm this. There were some limitations in the reporting of the methods, but the authors’ conclusions appear to be appropriate for the aim of their study.

Type of economic evaluation
Cost-effectiveness analysis, cost-utility analysis

Study objective
The objective was to assess the cost-effectiveness of behavioural activation, delivered by non-specialists, in the treatment of depression.

Interventions
Behavioural activation was compared with usual care. Behavioural activation was delivered in 12 one-hour sessions, by two mental health nurses with no formal therapy training. Usual care was follow-up by the general practitioner (GP) or primary care mental health worker.

Location/setting
UK/primary care.

Methods
Analytical approach:
The analysis was based on one trial (Ekers, et al. 2011, see ‘Other Publications of Related Interest’ below for bibliographic details) with a three-month follow-up. The authors reported that a health service perspective was adopted.

Effectiveness data:
The clinical data were from a pragmatic randomised controlled trial of 47 patients; 23 received behavioural activation and 24 received usual care. An intention-to-treat analysis was conducted. The depression symptom level, assessed using the Beck Depression Inventory (BDI), and the health state utility were the key endpoints for the analysis.

Monetary benefit and utility valuations:
The utility values were derived, during the clinical trial, using the European Quality of life (EQ-5D) instrument.

Measure of benefit:
Quality-adjusted life-years were the summary measure of benefit.

Cost data:
Staff training (including behavioural activation and clinical supervision), wage costs associated with the intervention, and primary care service use were included in the economic analysis. The costs were assessed for two treatment scenarios (A and B) with different estimates of workload. Primary care resource use was from primary care records and self-completed questionnaires. The price year was 2009 and all costs were reported in UK £.

Analysis of uncertainty:
A nonparametric bootstrapping approach (with 1,000 replications) was used to examine uncertainty and to generate
95% confidence intervals and cost-effectiveness acceptability curves for various willingness-to-pay (WTP) thresholds.

Results
For treatment scenario A, the total cost of behavioural activation for 23 participants was £1,050.12, while the cost of usual care for 24 participants was £899.31. There was a mean difference in BDI score of 15.78 in favour of behavioural activation. The mean number of QALYs were 0.79 for behavioural activation and 0.58 for usual care.

With behavioural activation, the cost per BDI point reduction was £9.45 and the cost per QALY gained was £2,985. At a willingness-to-pay of £20,000 per QALY, behavioural activation was cost-effective in 97.7% of simulations.

For treatment scenario B, the results were generally similar and behavioural activation was cost-effective in 97.0% of simulations.

Authors’ conclusions
The authors concluded that behavioural activation could provide good value for money, but a larger study was necessary to confirm this.

CRD commentary
Interventions:
The two strategies were well described. The comparators appear to have been appropriate, as they were those considered in the trial that was the main source of effectiveness evidence.

Effectiveness/benefits:
The clinical evidence was from a randomised controlled trial, which should have had a high degree of internal validity, but few details were reported, making it difficult to meaningfully comment on the quality of the methods. For example, it was unclear whether the two groups were comparable at baseline, and whether the study had sufficient power to detect statistically significant differences between the groups. QALYs were an appropriate measure of benefit given the impact of the interventions on quality of life and they allow comparisons with other health care interventions. A validated instrument (the EQ-5D) was used to elicit the patient preferences.

Costs:
The perspective was reported and the relevant costs appear to have been included. The sources for the resource use and unit costs were reported and appear to have been appropriate, but the actual resource use and cost estimates were not included in the paper, reducing the transparency of the analysis and the ability to generalise the results. It was stated that a breakdown of service use and costs was available on request. The price year and currency were reported. The costs were not discounted as the time frame for the study was three months, which was the duration of the intervention.

Analysis and results:
An appropriate incremental analysis was used to combine the costs and benefits of the alternative strategies. Nonparametric bootstrapping was used to examine uncertainty in the overall distribution of possible values and to construct cost-effectiveness acceptability curves. It would have been informative to also examine the uncertainty in the input estimates, using univariate and multivariate sensitivity analyses. The authors acknowledged that the relatively small size of their study limited the external validity of the results and that a larger study with follow-up was required.

Concluding remarks:
There were some limitations in the reporting of the methods, but the authors’ conclusions appear to be appropriate for the aim of their study.

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