Cognitive therapy v. usual treatment for borderline personality disorder: prospective 6-year follow-up

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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
This study examined the cost-effectiveness of cognitive-behavioural therapy (CBT), compared with treatment as usual, for patients with personality disorders. The authors concluded that CBT did not have a statistically significant cost-effectiveness advantage over usual care, but there was a trend towards lower costs and fewer suicide attempts with CBT. Quality of life remained poor with either treatment. The study was well described and the methods were valid, but the small sample might have affected the validity of the conclusions.

Type of economic evaluation
Cost-utility analysis

Study objective
This study examined, using long-term follow-up data from a clinical trial, the clinical and economic impact of cognitive-behavioural therapy (CBT), compared with treatment as usual, for patients with personality disorders.

Interventions
One year of CBT consisting of 30 sessions of therapy in addition to the usual care was compared against usual care alone.

Location/setting
UK/secondary care and hospital.

Methods
Analytical approach:
The analysis was based on a single study, with a six-year horizon. The authors stated that a broad perspective was adopted and this considered the patients, the UK National Health Service (NHS), and other providers of care.

Effectiveness data:
The clinical evidence was from a prospective randomised controlled trial (RCT), namely the Borderline Personality Disorder Study of Cognitive Therapy (BOSCOT) trial (Davidson, et al. 2006, see ‘Other Publications of Related Interest’ below for bibliographic details), which was carried out at three UK centres. There were 106 patients initially included in the trial and 76 were available for interview at the six-year follow-up, with 43 in the CBT group and 33 in the usual care group. The outcome assessors, at follow-up, were masked to the patient's treatment allocation. The clinical analysis was based on a modified intention-to-treat (ITT) principle that considered those patients who were alive at follow-up. Linear regression models were used to account for potential confounding factors. The key endpoint was the rate of attempted suicide.

Monetary benefit and utility valuations:
The utility values were derived from the sample of patients included in the trial, using the European Quality of life (EQ-5D) questionnaire and the Client Service Receipt Inventory (CSRI).

Measure of benefit:
Quality-adjusted life-years (QALYs) were the summary benefit measure and they were based on the EQ-5D scores.
Cost data:
The economic analysis included five main cost categories: hospital services, community day services, primary or community care, accommodation, and criminal justice services. A list of cost items was given. The quantities of resources were the actual consumption of services found in the clinical trial. All costs were in UK pounds sterling (£).

Analysis of uncertainty:
The costs and outcomes were adjusted for differences in the baseline patient characteristics and to take account of outliers.

Results
No statistically significant difference between groups was observed for any clinical endpoint and so QALYs were not calculated. The number of suicide attempts at six years was 3.03 with usual care and 1.88 with CBT (difference 1.26, 95% CI -0.06 to 2.58). The difference in EQ-5D scores at six years was 1.76 (95% CI -9.74 to 13.2) in favour of the CBT group.

The total costs were £18,737 (SD 43,998) with usual care and £6,582 (SD 6,913) with CBT. After adjustment for baseline differences, the difference in favour of CBT did not reach statistical significance (95% CI -18,578 to 781). The exclusion of two outliers from the usual care group reduced the cost difference, but it continued to favour CBT.

Authors’ conclusions
The authors concluded that CBT did not have a statistically significant advantage in cost-effectiveness over usual care, but there was a trend toward lower costs and fewer suicide attempts with CBT. Quality of life remained poor with either treatment.

CRD commentary
Interventions:
The comparators were appropriately selected as the proposed treatment was added to the standard care in the authors’ setting. A full description of the two strategies would have been useful to determine their relevance for other health care systems.

Effectiveness/benefits:
The clinical data were from a RCT, and this design is generally considered to provide valid evidence due to features such as the random allocation of patients, blinding of researchers to allocation, and the ITT principle. The study groups were comparable at baseline in their clinical and sociodemographic factors and statistical tests were used to adjust the results for these baseline characteristics. A relatively high number of patients provided data at follow-up (76 from an initial 106), but the authors acknowledged that the lack of statistical significance in the clinical endpoints could have been due to a lack of power from this sample size. This was a potential limitation of the analysis. A validated instrument was used to assess the impact of the interventions on the patients’ quality of life, but the EQ-5D scores were similar and a formal assessment of QALYs was not carried out.

Costs:
The economic analysis was conducted from a broad perspective and various items were included. Extensive details of resource use and unit costs were provided, but there was limited information on the sources of costs and the price year and discounting were not reported. Conventional statistical tests were carried out to assess the significance of the cost differences and to exclude outliers, as a large amount of hospital services were used by two patients.

Analysis and results:
The results were extensively presented. A synthesis of the costs and benefits was not performed, as the economic and clinical results were similar between the two groups. The uncertainty was not investigated in conventional sensitivity analyses, but statistical tests were performed to calculate confidence intervals around the mean differences in costs and benefits. Wide ranges of values were observed for both clinical and economic outcomes, suggesting great uncertainty. The exclusion of outliers provided less variable estimates, but they remained not statistically significant. Given this lack of statistical significance and the large variability, a cost-effectiveness acceptability curve would have been interesting to show the probability of CBT being cost-effective. There was a strong trend for better clinical outcomes and costs for
the patients in the CBT group.

Concluding remarks:
The study was well described and the methods were valid, but the small sample might have affected the validity of the authors’ conclusions.

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