Cognitive remediation therapy in schizophrenia: cost-effectiveness analysis

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 aimed to compare the costs and cost-effectiveness of cognitive remediation therapy plus usual care versus usual care alone, for people with schizophrenia. The authors concluded that providing cognitive remediation therapy, within the usual rehabilitation programme, could be cost-effective, but a longer follow-up was needed. The methods and reporting of the study were satisfactory, but there were some limitations. The results could be reliable and the conclusions were consistent with this evidence.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
This study aimed to compare the costs and cost-effectiveness of usual care plus cognitive remediation therapy against usual care alone for people with schizophrenia.

Interventions
The interventions were handbook-based cognitive remediation therapy, with 40 face-to-face sessions per patient, covering cognitive flexibility, working memory, and planning, and delivered by graduate psychologists. This therapy was compared with usual care alone. The study population was people with schizophrenia who had cognitive and social functioning difficulties.

Location/setting
UK/secondary care.

Methods
Analytical approach:
The study was based on a randomised controlled trial (RCT) of cognitive remediation therapy compared with usual care, for 85 people with schizophrenia (Wykes, et al. 2007, see ‘Other Publications of Related Interest’ below for bibliographic details). The maximum follow-up was 40 weeks and the authors stated that the analysis was performed from the perspectives of the health and social care provider and of society.

Effectiveness data:
The effectiveness evidence was collected prospectively from one RCT. The main clinical parameter was an improvement in working memory, which was measured using the Wechsler Adult Intelligence Scale (WAIS)-III.

Monetary benefit and utility valuations:
Not applicable.

Measure of benefit:
The measure of benefit was the improvement on the WAIS-III digit span (a working memory subscale) total raw score.

Cost data:
The use of resources and services data were retrieved retrospectively at three points during the study, using a combination of self-reporting in face-to-face interviews, from health care staff, and from health care provider records. The unit costs for each item were reported, with the estimates, their sources, and any assumptions underlying them, described in an appendix. The costs were in 2000 to 2001 prices and presented in UK pounds sterling (£).
Analysis of uncertainty:
The uncertainty around the net benefit was estimated, using bootstrapping techniques with 1,000 repetitions, and cost-effectiveness acceptability curves were constructed.

Results
At 40 weeks, from the provider perspective, the mean cost was £14,391 for cognitive remediation therapy compared with £13,029 for usual care alone. From the societal perspective, the mean costs were £16,338 for cognitive remediation therapy and £15,338 for usual care. These differences in mean costs were not statistically significant.

Cognitive remediation therapy was associated with significantly greater improvements in digit span compared with usual care; with a mean 21 point increase in the percentage of people gaining two or more points on the WAIS-III digit span scale.

Cognitive remediation therapy dominated usual care, as it had better outcomes for no additional cost. At 14 weeks, in over 80% of the bootstrap samples, cognitive remediation therapy was associated with a greater net benefit than usual care, from both perspectives. At 40 weeks, it had greater net benefit in less than 20% of samples.

Authors' conclusions
The authors concluded that providing cognitive remediation therapy as part of the usual rehabilitation programme for people with schizophrenia could be cost-effective compared with usual care alone, but a longer follow-up was needed.

CRD commentary
Interventions:
Cognitive remediation therapy was well described and was compared with the usual care in the study setting. The usual care was not described, but extensive resources were reported as the composition of this care. These results are likely to be generalisable to other settings.

Effectiveness/benefits:
The effectiveness data were from a trial with a good design. The authors did not discuss whether there was other evidence that could have been used to populate the model, and it is unclear whether the best available evidence was used. They provided sufficient detail of the RCT, together with relevant references. The 40-week time horizon might or might not have been sufficient to fully capture the differences in health outcome and to determine whether compliance and the treatment effect persist over time.

Costs:
The authors stated that two study perspectives were taken and they included the cost categories that were relevant to these perspectives. The reporting of the estimates for resource use should allow the replication of these results for other settings. The cost estimates were relevant to the study population and setting.

Analysis and results:
The analytic approach was satisfactorily reported and the results were presented clearly. Appropriate sensitivity analyses appear to have been conducted and were reported fully. The authors discussed the limitations of their study.

Concluding remarks:
The methods and reporting of study were satisfactory, but there were some limitations. The results could be reliable and the conclusions were consistent with this evidence.

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