The assessment of dangerous and severe personality disorder: service use, cost, and consequences

Barrett B, Byford S, Seivewright H, Cooper S, Duggan C, Tyrer P

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 evaluated the use of Dangerous Severe Personality Disorder programmes for prisoners, with a personality disorder and a high risk of re-offending, compared with their management in high-security prisons. The authors concluded that these programmes were more costly and had poorer outcomes, compared with prison management, and that their role required further study. There were a number of limitations to the study and the authors’ conclusions should be considered with these limitations in mind.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The aim was to describe the service use, and evaluate the costs and outcomes of the Dangerous Severe Personality Disorder (DSPD) assessment programme for prisoners with personality disorder and a high risk of re-offending. A secondary aim was to identify those patient characteristics that were associated with higher costs.

Interventions
The DSPD assessment programme comprised a formal psychological assessment, group work targeted to the patient’s needs, daily chores, and guided recreation. This intervention was compared with no DSPD assessment in a high-security prison.

Location/setting
UK/primary care.

Methods
Analytical approach:
The analysis was based on a single trial, which was published elsewhere (Tyrer, et al. 2008, see ‘Other Publications of Related Interest’ below for bibliographic details). The cost and outcome comparisons were considered over six months and the patient characteristics associated with these costs, over 12 months. The authors did not report a perspective.

Effectiveness data:
The effectiveness data were taken from a randomised controlled trial of 44 patients who met the inclusion criteria for the DSPD programme. The economic analysis was performed as a secondary data analysis of 21 patients assigned to DSPD services and 19 who remained in control prisons. The primary outcomes were the reduction of aggression, social functioning, and quality of life.

Monetary benefit and utility valuations:
Not relevant.

Measure of benefit:
The primary outcomes were reduction of aggression measured by the Modified Overt Aggression Scale, social functioning measured by the Social Functioning Questionnaire, and quality of life measured by the World Health Organization Quality of Life (WHOQOL-Bref) questionnaire.
Cost data:
The resource use data were collected during the course of the study and valued using a bottom-up approach which attached a price to all the components of a service. The unit costs for the financial year 2004 to 2005 were used. The costs within the prison were estimated using financial data from the prison service's budgets. The costs of group activities were estimated using information from the managers on the number in the group, professional time, and administration and preparation time. When this information was unavailable, published national data were used.

Analysis of uncertainty:
No analysis of uncertainty was performed.

Results
The mean cost of treatment with the DSPD programme was £25,509 compared with £21,963 for the control prisons, which was a mean difference of £3,547 (95% confidence interval, CI: -637 to 7,731), which was not statistically significant (p=0.094).

There was no statistical difference in the outcomes between groups, but there was a tendency towards poorer outcomes in the DSPD treatment group for all key effectiveness measures (aggression, social functioning, and quality of life).

Those patients with higher baseline social functioning scores (more severe problems) and lower baseline psychopathy scores were associated with higher treatment costs.

Authors' conclusions
The authors concluded that, in view of the higher costs and poorer outcomes, for high-security prisoners in the DSPD programme, compared with those not in the programme, the role of the assessment was unclear and required further study.

CRD commentary
Interventions:
The authors compared prisoners in the DSPD programme with those who remained in high security prisons, which was likely to be the status quo. However, the existing practice in the control prisons was not described, despite the authors indicating that interventions were offered. This lack of detail may complicate the extrapolation of these results to other settings. The intervention was adequately described, although further details about the four components of the programme and the setting (i.e. prison or specialist centre) would have been beneficial.

Effectiveness/benefits:
The effectiveness evidence was obtained from a randomised trial, but the numbers were small for the purpose of group comparisons. Furthermore, it was not clear whether six months was long enough to influence behaviour in these patients and to produce clinical effectiveness. The clinical study was reasonably well reported. The key outcomes were clearly specified and appeared to be appropriate.

Costs:
The authors did not report a perspective, so it is not clear if the appropriate cost categories were included. The cost analysis was adequately reported, and details such as a breakdown of the cost categories, the price year and the sources of data were given. Regression analyses were performed to assess the impact of different variables on the costs; the methods and results of these analyses were well reported.

Analysis and results:
The analysis was fairly basic, but clearly and adequately reported. There was some evidence of baseline differences between groups, which was not statistically significant, but could have been taken into account in the analysis. This may have affected the validity of the comparisons between the groups. The authors highlighted some limitations of their analysis.

Concluding remarks:
Generally, this study was adequately performed in the selection of clinical and economic data and the reporting of
results. The authors described the major limitations and problems of their study and, although their conclusions appear to be appropriate, they should be considered with these limitations in mind.

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**Bibliographic details**

**Other publications of related interest**

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