Befriending carers of people with dementia: a cost utility analysis

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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 evaluated the cost-effectiveness of a structured befriending service for carers of people with primary progressive dementia. The authors concluded that it was unlikely that befriending was a cost-effective intervention from the point of view of society. Overall, this pragmatic analysis appears to have been well conducted and transparently reported.

Type of economic evaluation
Cost-utility analysis

Study objective
The aim was to evaluate whether a structured befriending service was cost-effective and improved the quality of life of carers of people with primary progressive dementia.

Interventions
This study assessed usual care plus befriending compared with usual care alone. The structured befriending intervention was trained volunteers (befriender facilitators) building relationships with carers based on companionship rather than practical help. Befriending visits were intended to be weekly home visits for at least six months. Usual care was the care provided in the carer's area by health, social, or voluntary services.

Location/setting
UK/community (three centres).

Methods
Analytical approach:
The analysis was conducted concurrently with a single trial. The two time horizons were 15 and 24 months. The authors reported that a societal perspective was taken.

Effectiveness data:
The evidence came from a randomised clinical trial (Charlesworth, et al. 2008, see ‘Other Publications of Related Interest’ below for bibliographic details), with 236 carers (18 were lost to follow-up at six months and not included) and a 24-month follow-up. Some estimation of missing values was performed for a large proportion of the sample, who did not have complete data and the analysis was repeated using complete case data only. Of the 157 carers without complete data, 80% were missing four or fewer of the 136 data items. The primary outcome measures in the effectiveness trial were carer wellbeing, which was measured by the Hospital Anxiety and Depression Scale, and carer health-related quality of life, which was measured with the European Quality of life (EQ-5D) questionnaire.

Monetary benefit and utility valuations:
Carers completed the EQ-5D at baseline, 6, 15 and 24 months. These EQ-5D profiles were converted into utilities using UK general population conversion rates.

Measure of benefit:
Quality-adjusted life-years (QALYs) were the summary measure of benefit. A 3.5% discount rate was applied to those accrued from months 15 to 24.

Cost data:
The cost categories included National Health Service (NHS) and social services, voluntary and household sectors, and the costs of the informal care time of carers, family, and friends. Data on the resource use of both the carers and the patients were included and were collected by questionnaire. The cost of the intervention itself was based on facilitators’ and carers’ reports and was divided into a fixed and variable component. The unit costs came from relevant national or local sources. The price year was 2005, and prices were expressed in UK pounds sterling (£). A 3.5% discount rate was applied to those costs accrued from months 15 to 24 (as there were no data at 12 months).

Analysis of uncertainty:
Confidence intervals (CIs) for the outcomes and costs were generated using a nonparametric bootstrap approach. Additional scenario analyses were performed from the perspectives of the statutory sector (NHS and social services), voluntary and household sectors, and from the societal perspective including both carer and patient QALYs. Cost-effectiveness acceptability curves for each perspective were reported.

**Results**
The groups were shown to be comparable at baseline. Several analyses were conducted and their results presented in the paper, but only the base-case results are presented here.

The mean QALYs per carer over 15 months were 0.946 in the intervention group and 0.929 in the control group; a non-significant gain of 0.017 (95% CI -0.051 to 0.083). The total societal cost per carer was not significantly different at £122,665 in the intervention group and £120,852 in the control group; difference £1,813 (95% CI -11,312 to 14,984).

The incremental cost-effectiveness ratio (ICER) was £105,954 per additional QALY gained, which was above the commonly assumed thresholds for cost-effectiveness.

There was only a 42.2% probability that the ICER was below £30,000.

**Authors’ conclusions**
The authors concluded that it was unlikely that befriending was a cost-effective intervention from the point of view of society. There was a non-significant trend towards improved carer quality of life, but higher costs for all sectors.

**CRD commentary**
**Interventions:**
The study evaluated relevant interventions. Although the befriending intervention was not described in detail, the authors referred readers to another report (Charlesworth, et al. 2008). It was not clear whether the usual care was the same across all three centres, but this may have been stated in this other report.

**Effectiveness/benefits:**
The authors acknowledged and addressed the limitations imposed by the high percentage of missing data and their imputation. Although the complete case analysis gave a more favourable result for befriending, the authors argued that this was likely to be biased. Overall the clinical outcomes were not well reported in this paper and the reader is referred to the Charlesworth paper for more information.

**Costs:**
This was a prospective study that collected extensive data on resource use in different sectors. Although only 61 of the 218 patients had complete data, 80% of responses with missing data had only four or fewer of the 136 cost items missing, and imputation was required on only a small proportion of the data. This lack of complete data for so many of the trial participants may mean that the results are less robust, but this is unclear. The resource and cost data were reported clearly and in detail. Due to the prospective collection and comprehensive nature of the resource use data the authors were able to present a number of different perspectives, which makes this a very useful analysis.

**Analysis and results:**
The authors provided a detailed and transparent results section. The authors clearly outlined the limitations of their analysis, including the rural location of two of the three sites. They also acknowledged that carer time was the most...
important cost factor, and that there were theoretical and practical challenges to its valuation.

Concluding remarks:
Overall, this pragmatic analysis appears to have been well conducted and transparently reported.

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