A randomized controlled trial to evaluate the effectiveness and cost-effectiveness of psychodynamic counselling for general practice patients with chronic depression

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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.

Health technology
The study examined short-term psychodynamic counselling for general practice patients with chronic depression. The psychodynamic counselling consisted of highly trained counsellors employing a Freudian psychodynamic model in 6 of the 12 sessions.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
The population comprised male and female patients who had been depressed for at least 6 month. Patients were eligible for inclusion if they were motivated to take part, were aged 18 to 70 years, and scored between 14 and 40 points on the Beck Depression Inventory (BDI). Patients were excluded if they had symptoms of anxiety only, had chronic depression for more than 5 years or were considered difficult or hard to treat patients. They were also excluded if they had a history of drug- or alcohol-related problems, or suicide attempts or psychosis, or had seen a counsellor in the last 6 months.

Setting
The setting was primary care in Derbyshire, UK. The economic analysis was carried out in London, UK.

Dates to which data relate
The dates to which the effectiveness data related were not reported. The resource data were derived from the Client Service Receipt Inventory published in 1995 and 2001. All of the cost data were reported in 1997 to 1998 prices.

Source of effectiveness data
The effectiveness data were derived from a single prospective study.

Link between effectiveness and cost data
The costing was carried out on the same sample of patients as that used in the effectiveness study.

Study sample
Power calculations were reported. These showed that 72 patients in each group were required in order to detect a difference in outcome of 3.5 on the BDI between the two groups, at a 90% power and 5% level of significance. Of the
1,550 patients screened, 432 (28%) scored at least 14 on the BDI. Of these, 77 patients refused to take part and a further 171 did not meet one or more of the other entry criteria. A total of 181 patients were included in the study. Ninety-two patients were randomly referred to the experimental group and 89 to the control group. When practices that employed cognitive behaviour counsellors were excluded, there were 73 patients in the experimental group and 72 patients in the control group. The outcome analysis reported in the article considered 145 patients.

**Study design**
The study was a randomised controlled trial that was conducted in seven GP practices (screening attendees) employing psychodynamic counsellors. Patients who were seen in the two GP practices that employed cognitive behaviour counsellors were excluded. The patients were followed up at 6 and 12 months. Up to the 6-month period, the assessors were blind to the treatment received. Outcome data were obtained for 130 (90%) patients at 6 months (65 patients in each group) and for 115 (80%) patients at 12 months (60 patients in the experimental group and 55 in the control group).

**Analysis of effectiveness**
The main analysis of the clinical study reported in the article considered only those with complete outcome data. However, the effects of drop-outs were also analysed. First, by excluding all drop-outs. Second, by assigning the most optimistic outcome to all patients who dropped out. Third, by assigning the most pessimistic outcome to those patients. The main health outcomes used in the analysis were the BDI score and whether or not they could still be considered as a "case". The secondary outcome measures used (see Other Publications of Related Interest) were:

- mental health symptoms, using the Brief Symptom Inventory, BSI;
- functioning in interpersonal relationships, using the Inventory for Interpersonal Problems (IIP);
- social adjustment, using the Social Adjustment Schedule (SAS).

The experimental and control groups were broadly similar in terms of demographic characteristics such as gender (85% versus 75% females) and age (42 versus 44 years), and no statistically significant differences were found. There was a significant difference between the two groups on the BDI score at entry into the trial (mean difference 2.21, 95% confidence interval, CI: 0.28 - 4.1; p=0.03), but not for any of the other measures.

**Effectiveness results**
There was no difference between patients who withdrew and those who remained in the study.

There were no significant differences between the groups on any of the BDI, BSI, IIP and SAS measures, either at the 6- or 12-month follow-up, when using a univariate analysis of covariance and the initial score as covariate.

There were no significant differences between the groups in the number of depressed cases on the BDI, BSI and SAS measures at the 6-month follow-up.

At the 12-month follow-up, there were fewer cases on the BDI in the experimental group (48%) than in the control group (64%). This difference was statistically significant, (p=0.02). There was no difference between the groups for the BSI and the SAS.

**Clinical conclusions**
There was very limited evidence that psychodynamic counselling improved outcomes for GP practice patients with chronic depression.

**Measure of benefits used in the economic analysis**
The authors did not derive a measure of health benefit. Since the authors concluded that the clinical outcomes were
comparable, the study was effectively a cost-minimisation analysis.

Direct costs
The perspective adopted was unclear. The direct costs to the health service appear to have been included. The total support costs (including accommodation and living expenses) and total service costs (including specialist mental health services, hospital services, primary care, and community health and social care services) were measured. However, the accommodation costs and living expenses were subsequently excluded because there was no difference between the groups at any of the time periods. The primary care subtotal included only the costs of support from GPs, prescribed medication, practice nurses and practice counsellors. The comparison of the costs between the two groups thus focused on the total service costs and primary care costs. The resource data were derived from the Client Service Receipt Inventory published in 1995 and 2001. The unit costs were taken from an annual compendium of costs and from the authors' setting. All the cost data were reported at 1997 to 1998 prices.

Statistical analysis of costs
Statistical analyses of the costs were carried out using t-tests and bootstrap analyses to confirm the results (2,000 re-samples used).

Indirect Costs
The indirect costs were not included. Lost productivity costs were excluded because there was no difference between the groups at any of the time periods.

Currency
UK pounds sterling (£).

Sensitivity analysis
No sensitivity analysis was carried out.

Estimated benefits used in the economic analysis
See the 'Effectiveness Results' section.

Cost results
There was no statistically significant difference between the experimental and control groups in the mean service costs per person, either at baseline (349 versus 643), during the 6-month period (652 versus 537), between 6 and 12 months (374 versus 515), or during the 12-month follow-up (1,046 versus 1,074).

With the exception of short-term increased costs to the GP practices (linked to the use of counselling services), there were no statistically significant differences between the treatment options in terms of the primary care costs at each time interval. The primary care costs were 101 versus 119 at baseline, 318 versus 161 during the 6-month period, (p<0.001), 162 versus 196 between 6 and 12 months, and 486 versus 371 during the 12-month period.

If the counselling costs were excluded, there were no significant differences between the two groups.

Synthesis of costs and benefits
Not applicable.

Authors' conclusions
The findings suggested no cost-effectiveness advantage of counselling over routine treatment for general practice attendees with chronic depression. There was very limited evidence of improved outcomes and the cost of primary care treatment increased in the short term. The use of stricter referral criteria to exclude the more severely depressed (BDI +/-24) might have yielded more conclusive results.

CRD COMMENTARY - Selection of comparators
A justification was given for the comparator used, that is, routine GP treatment for chronic depression in the authors’ setting. You should consider whether this is a widely used technology in your own setting.

Validity of estimate of measure of effectiveness
The estimates of effectiveness were derived from a randomised controlled trial, which potentially has a high level of internal validity. Allocation was conducted by a research assistant who was not involved in the assessment. However, it was not possible to conceal allocation from clients or the doctors involved because a counsellor would become involved. Hence, there is a possibility of selection bias. The authors acknowledged that there might have been selection bias in the method of recruitment (GP attendees), thus affecting the generalisability of the study results to GP referrals. The patient groups were shown to have been comparable at analysis. Appropriate statistical analyses were undertaken to take into account potential biases and confounding factors (initial score on the BDI). However, due to the small size of the study sample in the follow-up periods, there was a lack of power, particularly at 12 months.

Validity of estimate of measure of benefit
The authors did not develop a summary benefit measure. Since the authors concluded that the clinical outcomes were comparable, the study was effectively a cost-minimisation analysis.

Validity of estimate of costs
The perspective adopted was unclear, but it is likely to have been that of the health service. The price year was reported, which helps with the generalisability of the results. However, the costs and the quantities were not reported separately. The resource data were derived from published sources. A sensitivity analysis of the quantities was not conducted. This may limit the interpretation of the study findings. A statistical analysis of the unit costs was performed. Discounting was unnecessary since all the costs were incurred in one year.

Other issues
The generalisability of the results was not discussed. Adequate comparisons were made with studies dealing with the same topic. The study enrolled patients with chronic depression and this was reflected in the authors’ conclusions. The authors highlighted the limitations of their study. They do not appear to have reported their results selectively.

Implications of the study
The authors suggested that further investigation of cost variations, in conjunction with the desegregated outcome data, is required. This may indicate whether counselling is a cost-effective option for some patients and thus inform further work on the role of counselling in treating patients with mild to moderate depression.

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Bibliographic details
**Other publications of related interest**


**Indexing Status**

Subject indexing assigned by NLM

**MeSH**

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