The addition of a psychological intervention to a home detoxification programme
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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 addition of a psychological intervention (PI) to a home detoxification programme for the treatment of drinkers in their own environment.

The PI consisted of a relatively brief intervention that comprised "three main approaches within one 30 minute session on each of five home visits". Session 1 focused on motivation, sessions 2 and 3 focused on coping skills, and sessions 4 and 5 focused on social support. The intervention was carried out by community participating nurses (CPNs).

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
The study population comprised individuals meeting criteria for home detoxification. The exclusion criteria were a history of withdrawal fits, epilepsy, very severe physical or psychological disorders, or no stable address.

Setting
The setting was the community. The economic study was carried out in the UK.

Dates to which data relate
The period during which the effectiveness and resource use data were gathered was not reported. The price year was not explicitly given, although some costs were estimated using 2001 prices.

Source of effectiveness data
The effectiveness evidence was derived from a single study.

Link between effectiveness and cost data
The costing was carried out on a hypothetical patient.

Study sample
Power calculations, if performed, were not reported. Consecutive individuals were recruited. An initial group of 120 patients was initially screened, of which 103 were further assessed and 91 were finally included in the study. Overall, 11% of the individuals were either unsuitable or refused to participate. Referrals who were considered unsuitable had no adequate support, or had a history of withdrawal fits. Forty-five participants were allocated to the control group.
(home detoxification alone) and 46 to the intervention group (PI added to home detoxification). The mean age of the sample was 43 (+/- 10.16) years (range: 21 - 77) and 54 were men.

**Study design**
This was a prospective, randomised clinical trial that was carried out in four areas. These areas were covered by the Bro Taf Community Addiction Unit (Cardiff), the Sandwell Community Alcohol Team (Birmingham), the Clwyd Community Addiction Unit and the Gwynedd Community Addictions Unit. Randomisation was performed using a random number table. The length of follow-up was one year, with outcome assessments being carried out at 3 and 12 months. Eighty-five patients were still in the trial at 3 months, and 78 were still participating at 12 months. The proportions of patients successfully followed were comparable between the intervention and control groups (43 versus 42 at 3 months; and 38 versus 40 at 12 months). The authors stated that the interviewers of less than 25% of the patients were not blinded because of geographical constraints.

**Analysis of effectiveness**
The analysis of the clinical study appears to have been conducted on the basis of treatment completers only. However, the analysis was repeated under the assumption that all participants with missing data did badly at the 12-month follow-up. The outcome measures used were:

- the number of drinks per drinking day;
- the total number of days abstinent;
- the total number of alcohol units consumed;
- the time to first drink;
- the reduction in alcohol-related problems;
- social satisfaction;
- self-esteem;
- abstinence or moderate drinking; and
- severity of dependence.

The number-needed-to-treat (NNT) to produce one extra non-drinker was also calculated.

At study entry, the groups were comparable on any pre-treatment variable.

**Effectiveness results**
The number of drinks per drinking day was significantly lower in the intervention group at 3 months (p=0.012) and 12 months, (p=0.005), (the results were not reported).

The total number of days abstinent in the 90-day period prior to assessment was significantly higher in the intervention group, (p=0.004), (the results were not reported).

The total number of alcohol units consumed in the 90-day period prior to assessment was significantly lower in the intervention group, (p=0.002), (the results were not reported).

The time to first drink was 114 days in the intervention group and 52 days in the control group, (p=0.011).

A significant reduction in alcohol-related problems was observed in the intervention group in comparison with the
control group, (p=0.048), (the results were not reported).

Significantly better social satisfaction was observed in the intervention group in comparison with the control group at both 3 and 12 months, (p=0.02), (the results were not reported).

There was a trend towards improvements in self-esteem in the intervention group in comparison with the control group, (p=0.061), (the results were not reported).

With respect to abstinence or moderate drinking, at the 3-month follow-up, the number of participants abstinent or drinking 3 or fewer units a day was 10 in the control group and 25 in the intervention group. The numbers of participants drinking more than 3 units a day were 32 (control group) and 18 (intervention group), respectively.

At the 12-month follow-up, the number of participants abstinent or drinking 3 or fewer units a day was 3 in the control group and 15 in the intervention group. The numbers of participants drinking more than 3 units a day were 37 (control group) and 23 (intervention group), respectively. Thus, 39.47% of patients in the intervention group versus 7.5% in the control group were abstinent or drank less than 3 units per drinking day. This difference (31.97%) reached statistical significance.

The NNT to produce one extra non-drinker was 3.13 (32/100).

Severity of dependence was comparable between the groups.

**Clinical conclusions**
The effectiveness analysis showed that a PI added to a home detoxification programme was more effective than a home detoxification programme alone in increasing abstinence days and improving other aspects of care.

**Measure of benefits used in the economic analysis**
The health outcomes were left disaggregated and no summary benefit measure was used in the economic analysis. In effect, a cost-consequences analysis was performed.

**Direct costs**
The analysis of costs compared the detoxification programme plus the PI with both an inpatient and an outpatient detoxification programme. Discounting was not relevant since the costs were incurred during one year. The unit costs were presented separately from the quantities of resources used. The health services included in the economic evaluation were inpatient stay, outpatient visits, home visits and detoxification medications. The cost/resource boundary of the NHS was used. The costs were estimated, based on the treatment of a hypothetical patient. The unit costs were derived from both local sources and national prices. The resource use data was based on typical treatment patterns. The price year was not explicitly stated, but most of the costs were estimated for 2001.

**Statistical analysis of costs**
The costs were treated deterministically.

**Indirect Costs**
The indirect costs were not included in the economic evaluation.

**Currency**
UK pounds sterling (£).
Sensitivity analyses were not performed.

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

**Cost results**  
The costs per patient were 2,186 to 3,901 with inpatient treatment, 581 to 768 with outpatient treatment, and 231 with home-based detoxification plus PI. The only additional costs of the intervention (PI) with respect to a home-based detoxification programme were those for training the CPNs and implementing the programme (figures not reported).

The extra cost of a PI programme was substantially lower than the cost of inpatient treatment and outpatient visits. Thus, given the low NNT to obtain an extra non-drinker, it is likely that the implementation of a PI would lead to cost-savings to the NHS.

**Synthesis of costs and benefits**  
A synthesis of the costs and benefits was not relevant since a cost-consequences analysis was performed.

**Authors' conclusions**  
Clinical outcomes improved in both groups, but significantly better results were observed in patients treated with a psychological intervention (PI). The PI programme could be easily incorporated into existing services, with no cost implications for the service provider but possibly cost-savings to the National Health Service (NHS).

**CRD COMMENTARY - Selection of comparators**  
The selection of the comparator (home detoxification) was appropriate for assessing the additional clinical impact of the PI. However, in the analysis of costs, home detoxification was compared with other detoxification programmes, such as inpatient and outpatient programmes. You should decide whether they are valid comparators in your own setting.

**Validity of estimate of measure of effectiveness**  
The effectiveness evidence came from a clinical trial, which was appropriate for the study question. The methods of randomisation and sample selection were reported and accurately described. Some patients refused to participate, or were excluded from the initial study sample because they were not eligible for the detoxification programme. The study groups were comparable at baseline, which strengthens the robustness of the comparison. A blinded assessment of the outcome was carried out for most patients. There was no evidence in support of the size of the sample, but most of the outcomes were significantly different between the two groups of patients. The participants were recruited from a large number of centres, thus the study sample could have been representative of the patient population. The results of most outcome measures were not reported, and only the statistical significance of the results was provided. The length of follow-up appears to have been appropriate.

**Validity of estimate of measure of benefit**  
No summary benefit measure was used in the analysis because a cost-consequences analysis was conducted. Please refer to the comments in the 'Validity of estimate of measure of effectiveness' field (above).

**Validity of estimate of costs**  
The categories of costs included in the analysis were consistent with the perspective adopted in the study. The unit costs and resource consumption were clearly reported, which enhances the possibility of replicating the analysis in other settings. The sources used to estimate the unit costs were provided. Alternative sources of costs were considered, and
the total costs were reported as ranges of values when differences in the estimated costs were observed. The price year was implicitly reported. The cost estimates were not varied and no statistical analyses were performed. Resource use was assessed for a hypothetical patient.

**Other issues**

The authors reported the results of other studies that had evaluated the "brief intervention" used for detoxification programmes. In terms of the generalisability of the study results, the authors stated that their findings could be transferred to settings with the same detoxification programme and similar clinical criteria as those considered in the current study. Some limitations of the analysis were also highlighted. First, only subjective measures of outcomes were used. Second, there was no audit of the intervention. Third, some of the assessors were not blinded. Finally, the intervention was delivered not only by CPNs but also by psychologists. This could have biased the results of the analysis, although the authors stated that no differences between outcomes for psychologists and CPNs were observed.

**Implications of the study**

The study results supported the addition of a PI to home detoxification programmes.

**Source of funding**

None stated.

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**Other publications of related interest**


**Indexing Status**

Subject indexing assigned by NLM

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