Cost-benefit and cost-effectiveness analyses of behavioral marital therapy as an addition to outpatient alcoholism treatment


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
Behavioural marital therapy as an addition to outpatient alcoholism treatment.

Type of intervention
Treatment.

Economic study type
Cost-benefit analysis and cost-effectiveness analysis.

Study population
Newly abstinent married male alcoholics.

Setting
The practice setting was a hospital out-patients clinic. The economic analysis was carried out at the Harvard Medical School, Massachusetts, USA.

Dates to which data relate
It was not clear when either effectiveness or resource data were obtained. 1992 prices were used.

Source of effectiveness data
The evidence for the effectiveness of BMT was obtained from a single study.

Link between effectiveness and cost data
Costing was undertaken on the effectiveness study sample, but it was not clear whether this was done prospectively or retrospectively.

Study sample
Initial screening found 63 potential couples of whom 36 agreed to participate. 1 couple dropped out after 4 sessions of BMT despite many follow-up approaches to continue treatment. A wife in a second couple admitted to a previously concealed alcohol problem and the couple were withdrawn from the study leaving 34 couples. Couples were generally highly educated, with an average age of 42.4 years, had been married on average for 15.8 years, and with an average of 3.8 children. On average the husbands' drinking problems had prevailed for 13.6 years, they scored 38.4 on the Michigan Alcoholism Screening Test, had an average of 2.1 prior alcohol hospitalisations, and withdrawal symptoms (91%). Using the t test and chi-square test for categorical variables the couples in the three treatment groups were not found to be significantly different in areas such as demographics, drinking history, etc. No power calculations were
Study design
The study was a randomised controlled trial. The period of analysis was over 10 weekly sessions for individual outpatient alcoholism counselling. Marital and drinking adjustment information was collected pre and post at 2, 6, 12, 18, and 24 month follow-ups.

Analysis of effectiveness
The analysis of the clinical study appears to have been based on treatment completers only. The primary health outcomes assessed were marital satisfaction, marital stability, and drinking behaviour.

Effectiveness results
The direct effectiveness results found for the primary health outcomes were not shown.

Measure of benefits used in the economic analysis
Benefits were expressed as monetary units during both pre- and post-treatment phases in the cost-benefit analysis. Also, cost-effectiveness results were computed using unit costs of improvement for percentage of days’ abstinence, as well as both husbands’ and wives’ Marital Adjustment Test (MAT) scores.

Direct costs
No discounting of direct costs was stated. These included criminal justice system utilisation costs, illegal income and social security benefit payments, in-patient, long-term residential care, and out-patient treatment costs. Direct costs were provided from the perspective of society in the cost-benefit analysis incorporating social or indirect costs. Costings were obtained from the Veterans Affairs Medical Centre within Harvard University, where the study was carried out. 1992 prices were used.

Statistical analysis of costs
ANOVA tests were run on costs in the study.

Indirect Costs
No discounting of indirect costs was stated. These included criminal justice system utilisation costs. 1992 prices were used.

Currency
US dollars ($)

Sensitivity analysis
No sensitivity analysis was performed.

Estimated benefits used in the economic analysis
Benefits were expressed as monetary units during both pre- and post-treatment phases in the cost-benefit analysis. Also, cost-effectiveness results were computed using unit costs of improvement for percentage of days’ abstinence, as well as both husbands’ and wives’ Marital Adjustment Test (MAT) scores.
Cost results
The approximate average total post-treatment health and legal costs (pre treatment figures in parentheses) were: $1,000 ($7,900) for BMT, $7,000 ($4,700) for ICT, and $2,000 ($9,300) for individual counselling alone.

Synthesis of costs and benefits
Benefit-to-cost ratios were computed as part of the cost-benefit analysis for the BMT group (8.64), ICT group (-2.82) and the individual counselling group (20.77). In the cost-effectiveness analysis, the recorded number of units of improvement in percent days abstinence per $100 of treatment costs was 4.4, 4.1, and 12.8 for BMT, ICT, and individual counselling groups pre-treatment through to the end of the 2 year follow-up. Units of improvement in wives’ MAT scores per $100 of treatment cost were 2.0, -0.5, and -3.4 for BMT, ICT, and individual counselling groups pre-treatment through to the end of the 2 year follow-up. Units of improvement in husbands’ MAT scores per $100 of treatment cost were 0.1, -1.5, and -0.1 for BMT, ICT, and individual counselling groups pre-treatment through to the end of the 2 year follow-up.

Authors’ conclusions
The cost-benefit analysis showed reductions in health and legal costs in the 2 year follow-up compared with the year before treatment commenced as well as a positive cost offset, and a benefit-to-cost ratio greater than 1. This shows that the health and legal cost savings (i.e. benefits) exceeded BMT treatment costs, unlike the ICT treatment group. Individual counselling produced a higher benefit-to-cost ratio than BMT because it cost only half the amount required to provide BMT treatment plus counselling. Cost-effectiveness analysis showed that BMT plus individual counselling was less cost-effective than individual counselling alone and slightly more cost-effective than ICT with counselling in creating drinking abstinence.

CRD COMMENTARY - Selection of comparators
The selection of BMT, ICT and individual counselling was justified.

Validity of estimate of measure of benefit
The estimates of benefit reported in the study are likely to be internally valid.

Validity of estimate of costs
Cost estimates were adequately detailed and sourced.(Note: legal costs around marital problems/divorces were omitted from the analysis).

Other issues
No power calculations were provided in determining the most adequate sample size to study for treatment effects. Sensitivity analysis was not employed. The direct effectiveness results found for the primary health outcomes were not shown. It was not clear when either effectiveness or resource data were obtained.

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Bibliographic details