
Cost-effectiveness analysis of a home-based social work intervention for children and adolescents who have deliberately poisoned themselves: results of a randomised controlled trial

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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

Home-based social work intervention programme for children and adolescents who have deliberately poisoned themselves.

Type of intervention

Treatment.

Economic study type

Cost-effectiveness analysis.

Study population

Self-poisoned young people aged sixteen or less who have been referred to mental health care teams with a diagnosis of self-poisoning.

Setting

The setting was in the community in Manchester, England.

Dates to which data relate

Effectiveness and resource data were collected over a period of 6 months but specific dates were not provided. 1997/8 prices were used.

Source of effectiveness data

Estimates for the effectiveness of the home-based social work intervention were derived from a single study.

Link between effectiveness and cost data

Prospective costing was undertaken on the effectiveness study samples.

Study sample

162 self-poisoning children were randomly allocated to either routine care (77) or routine care plus the social work intervention (85). Inclusion criteria stipulated that self-poisoning must be deliberate, no psychiatric contraindication, and social situations must not have precluded a family intervention.

Study design

The study was a randomised controlled trial.

Analysis of effectiveness

The analysis of the clinical study was based on intention to treat. Primary health outcomes used in the analysis (assessed at baseline, two and six months) were the results of the suicidal ideation questionnaire and the hopelessness scale (completed by the patient), as well as the family assessment device (completed by the patient and their parents).

Effectiveness results

No statistically significant differences were found between the intervention and control groups for any of the primary (or secondary) outcome measures except treatment satisfaction (the treatment group parents were more satisfied at the two-month assessment, $P < 0.001$). Note: suicidal ideation was significantly lower in the intervention group at 6 months ($P = 0.01$) for a subgroup of patients without depression.

Clinical conclusions

Patient satisfaction was higher in the home-based intervention at two months among patients without depression. Other outcome measures were similar.

Measure of benefits used in the economic analysis

The authors did not develop a summary benefit measure. Primary health outcomes, as reported earlier, were expressed as benefits.

Direct costs

Discounting was not required due to the study length (i.e. 6 months). Resources measured included NHS costs (assessments, intervention session, day-patient, intensive care, out-patient, in-patient, school doctor/nurse, community psychiatric nurse, etc.), educational costs (educational welfare officer and educational psychiatrist), and social services costs (social worker foster care and residential care). Costing information was obtained from various sources including bottom-up calculations, local provider, the Personal Social Services Research Unit (PSSRU) and (national and local) salary scales.

Statistical analysis of costs

Statistical analyses were performed on costs, namely natural logarithmic transformations and Mann-Whitney non-parametric tests.

Currency

UK pounds sterling (£).

Sensitivity analysis

One way sensitivity analysis was performed on key variables mainly around staff salaries and total hospital costs.

Estimated benefits used in the economic analysis

Primary health outcomes were expressed as benefits (see the effectiveness results reported earlier).

Cost results

Total costs for the intervention group (control group figures are in parentheses) were:

excluding the intervention cost = 131,359.05 (87,068.96);

including the intervention cost = 131,359.05 (107,683.47);

subgroup without major depression = 33,573.15 (44,933.62).

Synthesis of costs and benefits

A synthesis of costs and benefits was not performed.

Authors' conclusions

Using a family-based social work intervention for children and adolescents who have deliberately poisoned themselves is as cost-effective as routine care alone and is associated with additional benefits.

CRD COMMENTARY - Selection of comparators

The selection of comparators was justified.

Validity of estimate of measure of benefit

The estimates of economic benefit used in the study were the primary health outcomes. No summary benefit measure was developed although this may have been difficult in light of the nature of the analysis.

Validity of estimate of costs

Costs were adequately referenced and represented.

Other issues

No details concerning power calculations were stated (although these were apparently carried out for the clinical data), and the sample size actually used was not sufficiently high to detect statistically significant differences for costs. As greater patient satisfaction was gained with the intervention, the authors argued it should be the preferred option, since additional utility is obtained at no extra cost.

Implications of the study

The authors stated that further research on different self-poisoning children, as well as assessing the best location in which to locate social workers is required.

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