Cost-effectiveness of individual versus group psychotherapy for sexually abused girls


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 compared individual versus group psychotherapy for girls aged 6 to 14 years who had experienced sexual abuse.

Type of intervention
Treatment (psychotherapy).

Economic study type
Cost-effectiveness analysis.

Study population
The study population comprised girls aged between 6 and 14 years who had experienced sexual abuse during the preceding 2 years and had symptoms of emotional or behavioural disturbance that required treatment. No further exclusion or inclusion criteria were reported.

Setting
The setting was secondary care, the Tavistock Clinic (Child and Family Department, Tavistock and Portman NHS Trust, London) and the Camberwell Child and Adolescent Service, both based in London. The economic study was carried out in the UK.

Dates to which data relate
The effectiveness data were derived from a study published in 2002. The cost data were derived from a published source in 1999. The price year was not explicitly reported.

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

Link between effectiveness and cost data
The costing was conducted prospectively on the same patients that were included in the effectiveness analysis.

Study sample
Details of the sample selection method and sample size were reportedly published in three earlier studies (Trowell et al. 2002, 1999 and 1995, see 'Other Publications of Related Interest' below for bibliographic details). Initially, 81 girls were selected as eligible for the study. However, the families of 15% of those girls refused to participate. Overall, 71 girls were randomly assigned to the two groups, 35 to the individual therapy group and 36 to the group therapy group.
Study design
The analysis was based on a randomised trial that was conducted at two centres. The randomisation of eligible patients took place at the Tavistock Clinic. Randomisation was achieved using a random-number technique (Trowell et al. 2002). The authors reported that blinding of either the patients or interviewers who participated in the study was not possible. The patients were followed up one and two years after the initiation of therapy. Each patient (child) had a meeting with a child psychiatrist, the carer had a meeting with a social worker, and a research psychologist had separate meetings with both the patient and the carer. The authors reported that only four carers did not receive support, but the reasons for loss to follow-up were not reported.

Analysis of effectiveness
It was reported that the analysis was conducted on an intention to treat basis. The primary outcomes used were the number of psychiatric symptoms, symptoms of post-traumatic stress disorder (PTSD) and global functioning. These were assessed through a semi-structured interview schedule, the Kiddi-SADs Schedule for Affective Disorders and Schizophrenia, the Kiddie-Global Assessment Scale (K-GAS), and the Orvaschel’s scales for PTSD. Both therapy groups were shown to be comparable at baseline in terms of their demographic characteristics.

Effectiveness results
The combined outcomes for both groups demonstrated a reduction in co-morbidity, from a mean of 2.59 disorders at baseline to 1.19 at the 1-year follow-up and 0.92 at the 2-year follow-up. At the 1-year follow-up, the depression rate decreased from 57% at baseline to 17%, general anxiety decreased from 37 to 17%, and separation anxiety decreased from 58 to 23%.

There was a change in the K-GAS score from 5.01 at baseline to 6.70 at the end of the follow-up period. An improvement on most dimensions of Orvaschel’s scales for PTSD was also reported, but quantitative results were not given. The authors stated that there were no statistically significant differences between the two therapy groups in outcomes. The only difference at the end of the 2-year follow-up was that patients in the individual therapy group experienced greater improvement on the PTSD re-experience of traumatic events dimension. However, quantitative data were not provided. Full details were provided in an earlier study (Trowell et al. 2002).

Clinical conclusions
The authors concluded that both therapy strategies did not differ significantly in their effectiveness after two years of therapy.

Measure of benefits used in the economic analysis
The authors did not use a summary measure of benefit in the economic analysis. The authors only considered the costs in the economic analysis as equal effectiveness was demonstrated.

Direct costs
From the perspective of the health care provider, the direct costs included in the analysis were for the introductory meeting, initial assessment, therapy provided, carers’ support, supervision of the patients’ therapists, supervision of the carers’ workers, and the follow-up assessments. The therapists were trainee child psychotherapists, qualified child psychotherapists, child psychiatrists and nurse practitioners. Estimated costs included the salaries of professionals, employer superannuation, national insurance contributions, overheads and capital costs. The authors provided summary costs (e.g. cost of the initial assessment) that were not broken down into individual components. However, the costs and the quantities were analysed separately for these categories. All costs were obtained from official national sources, while all quantities of resource use were derived from case notes and therapists’ files on the patients at each of the two centres. Although the costs were incurred for two years, discounting was not carried out. The price year was not reported.
Statistical analysis of costs
The unit costs were treated deterministically. The total costs in each therapy group were compared using a regression analysis of total cost on type of therapy. A variable pointing out the clinic at which the therapy was administered (Tavistock Clinic or Camberwell) was used. The authors also carried out a bootstrap analysis to obtain more robust results and significant values.

Indirect Costs
The indirect costs were not included in the analysis.

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
The mean total cost was 3,195 (standard deviation, SD=1,069) with individual therapy and 1,246 (SD=481) with group therapy.

The cost-difference of 1,949 was found to be statistically significant, (p<0.001).

Synthesis of costs and benefits
The costs and benefits were not combined.

Authors' conclusions
The use of group therapy to treat sexually abused girls was more cost-effective than individual treatment.

CRD COMMENTARY - Selection of comparators
The study compared individual therapy versus group therapy for the treatment of sexually abused girls. The choice of the comparator was explicitly justified as both treatments appear to have been of high effectiveness. You should decide if this is a widely used health technology in your own setting.

Validity of estimate of measure of effectiveness
The study was based on a randomised trial, which was appropriate given the study question. The study sample appears to have been representative of the study population and the patient groups were comparable at analysis. However, it is not possible to comment on the internal validity of the effectiveness results since the authors referred to a separate paper for details of the clinical study. The basis of the analysis was intention to treat, and an appropriate statistical analysis was conducted to take account of potential biases and confounding factors. To fully ascertain the internal validity of the effectiveness results, the reader is referred to the three earlier studies by Trowell et al. (see 'Other Publications of Related Interest' below).

Validity of estimate of measure of benefit
No summary measure of benefit was used in the economic analysis. The reader is referred to the comments in the 'Validity of estimate of measure of effectiveness' field (above).

**Validity of estimate of costs**
The analysis of the costs was conducted from the perspective of the health care provider. As such, it appears that all the categories of costs have been reported. For each category of costs the relevant costs were included (i.e. overheads, capital costs etc.). The costs were analysed separately from the quantities, thus enhancing the reproducibility of the results to other settings. The quantities were derived from case notes and therapists’ files, while the costs were derived from published sources. However, no sensitivity analysis was carried out to assess the robustness of the estimates used. The analysis did not include the potential costs of having to wait for the initiation of group therapy. It is therefore possible that the cost-difference between the two therapy groups has been overestimated. Discounting was not carried out and the price year was not reported, which will impede any future reflation exercises.

**Other issues**
The authors did not compare their findings with those of other published studies, mainly because of a lack of other studies in this area. The issue of generalisability of the results was directly addressed. The authors do not appear to have presented their results selectively, although they did not always report results from the statistical tests performed. The study enrolled young girls who had experienced sexual abuse and this was reflected in the authors’ conclusions.

The authors reported a number of limitations to their study. For example the retrospective nature of the study did not allow the authors to take further services administered to the girls (e.g. services from educational and social care agencies) into consideration and, therefore, the costs might have been underestimated. In addition, hidden overhead costs were not included and this led to a general underestimation of the costs. No-treatment options were not included in the analysis and benefits of such options could be evaluated. The time horizon of the study was restricted to two years which, although longer than usual follow-up periods, does not enable an evaluation of the longer term effects of the therapies. Both treatment options included some components that are not usually included in routine settings.

**Implications of the study**
As far as planning of child mental health services is concerned, the authors pointed out that the whole resources necessary should be taken into account. In addition, health care professionals should ensure that there are adequate numbers of cases available to form groups and prevent delays in the initiation of treatment. The authors also recommended that future research should try to evaluate cognitive-behavioural therapy and compare it with psychotherapy and other treatment options. A larger sample size might provide more robust findings, allowing for a wider distribution of costs.

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**Bibliographic details**

**Other publications of related interest**


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Subject indexing assigned by CRD

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