A continuum of care: more is not always better
Bickman L

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
A continuum (integrated availability of comprehensive range of services) of mental health and substance abuse services for children and adolescents. Investigation of the reform of a service delivery system.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
Children and adolescents, aged between 5 and 17 years, with mental health and substance abuse problems.

Setting
Community care. The study was carried out in Fayetteville, North Carolina, USA.

Dates to which data relate
Effectiveness data, resource use and cost data were collected between June 1990 and September 1995. The price date was not stated.

Source of effectiveness data
The evidence for health outcomes was based on a single study.

Link between effectiveness and cost data
The costing was undertaken prospectively and the sample included, but was not limited to, the same patient sample as that used in the effectiveness analysis.

Study sample
Power calculation was used to determine the sample size. The mental health outcome study included 984 children of military personnel: 574 in the demonstration group and 410 in the comparison group.

Study design
The study was a non-randomised trial with concurrent controls. The intervention was based on a single centre, which coordinated and purchased necessary services from other providers in the community. To serve as the comparison group, children receiving traditional CHAMPUS services (the Civilian Health and Medical Program of the Uniformed
Services) were recruited at two comparable army posts. Patients were followed up for one year. The authors stated that differential attrition was a potential concern in the study, but no details were reported.

**Analysis of effectiveness**
It was not stated whether the effectiveness results were based on all participants in the treatment and comparison groups as originally allocated. The primary health outcomes in the analysis were improved mental health (11 measures), quicker recovery, and more client satisfaction. The groups were found to be comparable in terms of demographic characteristics, but some differences in mental health status were observed at baseline. Of the 103 measures of mental health status, 14 were found to be significantly different.

**Effectiveness results**
The authors reported that there were no significant differences in any of the key outcomes, but the values of main outcome measures and confidence intervals were not reported.

**Clinical conclusions**
Reform of the mental health system alone is unlikely to affect clinical outcomes.

**Measure of benefits used in the economic analysis**
No difference was found in the health outcomes analysed, and hence, the economic analysis was based on costs only.

**Direct costs**
Cost were not discounted. Quantities and costs were not reported separately. The costs estimates included all services used by the participating children. The price date was not stated.

**Currency**
US dollars ($).

**Estimated benefits used in the economic analysis**
Not applicable.

**Cost results**
The average undiscounted expenditure per treated child at the demonstration site was $7,777 against $4,904 per treated patient at the comparison site.

**Synthesis of costs and benefits**
Not applicable.

**Authors' conclusions**
The study showed that an integrated continuum was successfully implemented, had better access, greater continuity of care, more client satisfaction, and treated children in less restrictive environments. However, the cost was higher, and clinical outcomes were no better than those at the comparison site.

**CRD COMMENTARY - Selection of comparators**
A justification for the choice of the comparator was given. A fragmented service system, with a limited variety of
services was stated to be a typical service delivery system. You, as a user of this database, should consider whether this is an appropriate comparator in your setting.

**Validity of estimate of measure of effectiveness**
Due to the non-randomised design of the study, the results are subject to several biases, which were not adequately discussed by the authors. The article is a summary of the key aspects of a broader study called the Fort Brag Evaluation, but adequate details of this were not given.

**Validity of estimate of costs**
Costs and resource use quantities were not reported separately. Neither the costing methodology nor the included components were reported in adequate details.

**Other issues**
The justification of the authors’ conclusion is difficult to assess due to the limited details provided in the report. In general, conducting such a large community based experiment is subject to a variety of problems including confounding and loss of control. Experiences among military personnel and their children may not be generalisable to the general population. Also, the results are unlikely to be generalisable to other countries with different service delivery system.

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