Internal vs. external care management in severe mental illness: randomized controlled trial and qualitative study

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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 use of internal versus external care management (ICM versus ECM) for the treatment of patients with severe mental illness (SMI). In the ICM model, the social worker was a member of the multidisciplinary health care team. In the ECM (brokerage) model, the patient was referred to a social worker in an external and autonomous team.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
The study population comprised patients with SMI referred to LASSD.

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

Dates to which data relate
In the analysis used to derive effectiveness and resource use data, the patients were recruited from September 1999 to June 2000. The costs were expressed using 1999/2000 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 prospectively on the same sample of patients as that used in the clinical study.

Study sample
Power calculations were not reported. A sample of 26 eligible individuals was recruited. There were 13 patients in each group. The patients’ demographics were not reported and the method used to select the sample was not described.

Study design
This was a prospective, randomised clinical trial that was carried out in the area of Paddington, a London-based LASSD. Details on the method of randomisation were not provided. The length of follow-up was 6 months. Seven
patients were lost to follow-up, but information about nonresponders was obtained through case manager interviews.

**Analysis of effectiveness**
The analysis of the clinical study was conducted on an intention to treat basis. The primary outcome measures were the duration of psychiatric inpatient care during the 6 months following randomisation and the mean number of admissions. The secondary outcome measures were improvements in symptoms, social functioning and service satisfaction. These were examined using the Comprehensive Psychopathological Rating Scale, Global Assessment of Function (clinical and social functioning), social functioning, and service satisfaction questionnaires. In addition, interviews with CRAFT case managers (n=7), LASSD care managers (n=6), six health care service managers and four social services care managers from Nottingham were used to assess the differences between the ICM in Paddington and Nottingham. The authors stated that the study groups were comparable at baseline.

**Effectiveness results**
The average inpatient stay was 58.3 days (median 15; range: 0 - 182) with ICM and 42.4 days (median 9; range: 0 - 182) with ECM. The difference was not statistically significant. The mean number of admissions was 0.77 with ICM and 0.85 with ECM (difference not statistically significant).

None of the differences in the other outcome measures reached statistical significance.

The qualitative study showed that the CRAFT expected that ICM would improve their rate of success in referring for care management, that assessment and care planning procedures would be more rapid, and that they would have easier access to advice about funding and procedural matters, and available social care resources. However, in practice, the internal care manager did not have sufficient opportunity to deliver the anticipated interventions or achieve the hypothesised outcomes. During the study period, the internal care manager retained approximately 75% of his former caseload, had limited time to spend at the team's office, and still required authorisation from (an external) senior manager before referrals could be accepted.

The comparison with the Nottingham model showed the limits and structural problems of the Paddington model. The Paddington model was more "rigid", while the Nottingham experience was more "flexible" with respect to professional roles. In general, the Nottingham system was felt to be comparatively more efficient than either London model, with less duplication of tasks or formal joint management by different agencies.

**Clinical conclusions**
The effectiveness analysis showed that the two groups were equally effective in their treatment of patients with SMI.

**Measure of benefits used in the economic analysis**
Owing to the lack of statistically significant clinical differences between the groups, no summary benefit measure was used in the economic evaluation. In effect, a cost-minimisation analysis was performed.

**Direct costs**
Discounting was not relevant since the costs were incurred during a short time. The quantities of resources used were reported, but the unit costs were not. The health services included in the economic evaluation were inpatient stay, medications, social services and voluntary sector services, criminal justice (prison, court and police costs), and accommodation living expenses. The cost/resource boundary of the study was unclear. Resource use was estimated using patient-level data that were derived from the sample of patients included in the clinical study. The costs were derived from multiple sources, including the Personal Social Services Research Unit, the British National Formulary, the Office for National Statistics, the Prison Service Annual Report and Accounts, and other published studies. The analysis used 1999/2000 prices.
Statistical analysis of costs
The distribution of the costs was skewed, thus the mean costs in the two groups were compared using a standard t-test and the validity of the results was confirmed using bootstrapping.

Indirect Costs
The indirect costs were not considered.

Currency
UK pounds sterling ()

Sensitivity analysis
Sensitivity analyses were not performed.

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

Cost results
The total costs were 16,792 (+/-13,011) with ICM and 15,132 (+/- 12,258) with ECM. The difference of 1,661 (95% confidence interval: -8,572 - 11,893) did not reach statistical significance. NHS costs represented the greatest component of total costs in both groups (more than 70%).

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

Authors' conclusions
There were no apparent advantages in cost or in clinical outcomes for patients with severe mental illness (SMI) treated by either internal or external care management (ICM and ECM, respectively). However, the findings of the qualitative study suggested that the model of ICM implemented in Paddington was insufficient to overcome the systematic divisions between policies, practices and personnel of health and social care agencies. The authors suggested that social work and health care functions may need to be fully integrated at all levels in order to achieve improved outcomes for patients and greater cost-effectiveness.

CRD COMMENTARY - Selection of comparators
The selection of the comparators was appropriate as the two possible options for providing or purchasing services within the context of an LASSD were considered. 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. Some patients were lost to follow-up but intention to treat was the basis used to examine the clinical outcomes. The methods of randomisation and sample selection were not described. The authors stated that the patients were comparable at baseline, but no details on the patients’ demographics were reported. The main limitation of the study was the small sample of patients included in the study. Indeed, none of the outcome measures was significantly different between the groups. These issues tend to limit the internal validity of the analysis.
Validity of estimate of measure of benefit
No summary benefit measure was used in the analysis because a cost-minimisation 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 perspective adopted in the study was quite broad. A detailed breakdown of the cost items was provided, although the unit costs were not given. The source of the data was provided for all items. In general, typical NHS sources were used for the medical costs. The economic estimates were specific to the study setting. The price year was reported. Statistical analyses were performed to deal with the non-normal distribution of the costs.

Other issues
The authors stated that their findings corroborate those observed in other studies. However, the issue of the generalisability of the study results to other settings was not explicitly addressed. Sensitivity analyses were not performed, which reduces the external validity of the analysis. The study referred to patients with SMI and this was reflected in the authors’ conclusions.

Implications of the study
The study results supported the decision by the UK central government to abandon the separation of LASSD care management from NHS case management for patients with SMI and to integrate them as far as possible. However, the authors pointed out that many difficulties were observed and these need to be overcome before fully integrated health and social care for individuals with SMI can be achieved. In particular, it was stressed that budgets for health and social care should not be separate, as there is a tendency for each service to prevaricate or place patients in such a way that the other service (either health or social services) bears the major cost.

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Bibliographic details

Other publications of related interest


Indexing Status
Subject indexing assigned by CRD

MeSH
Case Management; Community Health Services; Cost-Benefit Analysis; Delivery of Health Care /economics; Great Britain; Humans; Job Satisfaction; Mental Disorders; Mentally Ill Persons; Patient Care Team /organization & administration