Residential care for mentally ill people in Andalusia and London: a comparison of care environments, users' attitudes and cost of care


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 health intervention examined in the study was residential care for mentally ill people.

Type of intervention
Residential home care.

Economic study type
Cost-effectiveness analysis.

Study population
The study population comprised psychiatric patients aged between 18 and 65 years with a diagnosis of functional psychotic illness (including cases of dual diagnosis), with a length of hospitalisation exceeding one year before placement in community residential facilities.

Setting
The setting was residential home care. The economic study was carried out in the London area (UK) and in Andalusia (Spain).

Dates to which data relate
The dates for the effectiveness and resource use data were not reported. The price year was 1997.

Source of effectiveness data
The effectiveness evidence was derived from a single study.

Link between effectiveness and cost data
The costing was performed prospectively on the same patient sample as that used in the effectiveness study.

Study sample
Power calculations to determine the sample size were not performed. An overall sample of 136 patients was included in the analysis. The Spanish group comprised 77 patients with a mean age of 49 years, of which 62% were men and 80% were single. The total time in hospital was 10 years and 88% of the patients were diagnosed as schizophrenics. The English group consisted of 59 patients with a mean age of 53 years, of which 54% were men and 74% were single. The total time in hospital was 20 years and 88% of the patients were diagnosed as schizophrenics. The patients in the English group were extracted from TAPS data. They were then matched with those in the Spanish group in terms of age, gender, total length of stay in hospital, diagnosis, total Basis of Everyday Living Schedule score, and total Social
Behaviour Schedule score.

Study design
This was a prospective case-control study. The Spanish patients were selected from 18 care homes in Granada and Seville, while the English patients were from 12 care homes in the London area. The length of follow-up was not reported. It seems that there was no loss to follow-up.

Analysis of effectiveness
All of the patients included in the initial study sample were taken into consideration when estimating effectiveness. The primary health outcomes used in the analysis were:

- a description of the facilities;
- the qualifications of the care staff;
- the environmental index (EI), which assessed the levels of restrictiveness and amenities; and
- the residents' attitudes, as measured using the Patient Attitude Questionnaire. This assessed whether the patients wanted to leave the hospital or liked house better than hospital, if life was different from hospital, if they liked to live there permanently, noticed change for better, liked the company, liked the regime, and if medication, organised indoor and outside activities were helpful.

All of the assessment tools used in the analysis were of established psychometric properties and were used during Team for the Assessment of Psychiatric Services (TAPS) research projects. The comparability of the study groups was determined at baseline, as the English patients were matched with Spanish patients.

Effectiveness results
In terms of a description of the facilities, residential homes were generally privately owned (two thirds of the cases) in Spain and managed by voluntary organisations (41% of the cases) in England.

The average living space per person was 17 m² in Spain and 26 m² in England.

The mean staff-per-resident ratio was 0.2 (range: 0 - 0.9) in Spain and 1.1 (range: 0.6 - 2.1) in England.

The EI-restrictiveness score (maximum value 55; low scores reflect a relatively non-restrictive environment) was 19.5 (+/- 11.9) in Spain and 6.2 (+/- 5.6) in England. The difference in the mean values was 13.3 (95% confidence interval, CI: 6.7 - 19.8, p<0.001).

The EI-amenities score (maximum value 28; low scores reflect relatively, readily-accessible amenities available locally) was 4.7 (+/- 1.1) in Spain and 11.2 (+/- 5.7) in England. The difference in the mean values was -6.5 (95% CI: -9.8 - -3.2, p<0.001).

In terms of the patient attitude questionnaire, 63% of the patients in the Spanish group wanted to leave the hospital, compared with 65% in the English group, (non significant);

78% of the Spanish patients and 65% of the English patients liked the house better than the hospital, (non significant);

life was different from hospital for 71% of the Spanish patients and 83% of the English patients, (non significant);

40% of the Spanish patients and 48% of the English patients liked to live there permanently, (non significant);

54% of the Spanish patients and 24% of the English patients noticed a change for the better, (p<0.01);
36% of the Spanish patients and 12% of the English patients liked the company, (p<0.01);

49% of the Spanish patients and 29% of the English patients liked the regime, (p<0.05);

medication was helpful for 82% of the Spanish patients and 63% of the English patients, (non significant);

organised indoor activities were helpful for 88% of the Spanish patients and 32% of the English patients, (p<0.01); and

outside activities were helpful for 64% of the Spanish patients and 26% of the English patients, (p<0.05).

Clinical conclusions
The effectiveness analysis showed that the Spanish environment was generally more restrictive, but offered more amenities than the English facilities. Patients in the Spanish group appear to have been more satisfied with the care received than the English patients.

Measure of benefits used in the economic analysis
The health outcomes were left disaggregated and no summary benefit measure was used. A cost-consequences analysis was therefore conducted.

Direct costs
Discounting was irrelevant since the costs were incurred over a short time period. The unit costs were not reported separately from the quantities of resources, and there was no detailed breakdown of the costs. The economic evaluation considered accommodation and the community resources used by the residents. The cost/resource boundary adopted in the analysis was not stated. The resource consumption was estimated from actual data, recorded using the Client Service Receipt Interview. In the Spanish group, rent was used as a proxy for the capital costs as the values of property were unavailable. Each manager provided the costs of the corresponding residential home. The price year was 1997.

Statistical analysis of costs
The costs were treated deterministically.

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

Currency
UK pounds sterling (€).

Sensitivity analysis
No sensitivity analyses were conducted.

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

Cost results
The mean, non accommodation costs were 49 in the Spanish group and 66 in the English group.

The accommodation costs were 84 in the Spanish group and 674 in the English group.
The mean total costs were 134 in the Spanish group and 808 in the English group.

**Synthesis of costs and benefits**
Not relevant as a cost-consequences analysis was conducted.

**Authors’ conclusions**
The striking differential in the costs of care provided in residential homes for mentally ill people was mainly determined by a quantitative difference in staff number (high in the English sample and quite low in the Spanish group), and by differences in property prices. Physical conditions were superior in England, as suggested by greater living space and a less restrictive environment. Differences in satisfaction with local aspects of care (such as indoor and outside activities) was likely to have reflected cultural attitudes.

**CRD COMMENTARY - Selection of comparators**
The authors did not justify the reasons for the comparison between residential care in Spain and England. In addition, they did not report the main characteristics of the services provided. You should decide whether the residential care delivered in Spain and/or England represents widely used approaches in your own setting.

**Validity of estimate of measure of effectiveness**
The analysis of the effectiveness used a prospective case-control study, which seemed appropriate for the study question. The study sample was representative of the study population. The study groups were matched at baseline. Hence, they were comparable in terms of their demographic and disease conditions. The authors stated that all assessment tools had been validated previously and a pilot study was conducted to determine the validity of translating the questionnaires into Spanish. However, patient allocation to the study groups was not random, thus the issues of bias remain. No power calculations were performed to ensure a significant sample size was achieved. There was also no evidence that the initial study sample was appropriate for the study question.

**Validity of estimate of measure of benefit**
No summary benefit measure was used in the economic analysis. The analysis was therefore categorised as a cost-consequences study.

**Validity of estimate of costs**
Overall, only very limited details of the cost analysis were reported. The perspective adopted in the study was not stated, and the unit costs and the quantities of resources used were not reported separately. A detailed breakdown of the costs was not provided, and the costs and quantities were treated deterministically. The authors did not conduct any sensitivity analyses. The price year was reported.

**Other issues**
The authors compared their findings with those from other studies. However, the generalisability of the study results to other settings appears quite limited, as no sensitivity analyses were performed and details of the economic analysis were not reported. The authors commented that the conditions on which care is delivered (especially for the case of Andalusia) may not be representative of other areas. The authors also noted some limitations of their analysis. First, existing cross-cultural differences may have confounded the study results. Second, this was a direct comparison of costs estimated in two countries where living habits are different.

**Implications of the study**
The authors highlighted some implications of their analysis of residential care for mentally ill patients. In Spain, further training for residential staff and a more restrictive environment with more attention to patient privacy would be helpful.
In England, discussion on larger care homes and employment of professional qualified residential workers should be emphasised to make the service more cost-effective.

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None stated.

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