Dementia care costs and the patient’s quality of life (QoL) in Taiwan: home versus institutional care services
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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.

CRD summary
This study evaluated whether home or institutional care was more appropriate for patients with dementia. The authors concluded that institutional care was better for patients with high physical dependence, and home care was better for those with low physical dependence. The study was generally poorly reported. Its retrospective design introduced a high risk of bias in the results due to population and intervention factors. It is unclear if the authors’ conclusions were appropriate.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
This study aimed to identify whether home or institutional care was most appropriate for patients with dementia.

Interventions
Home care was compared with institutional care.

Location/setting
Taiwan/social care.

Methods
Analytical approach:
The cost-effectiveness analysis was based on a clinical study. The perspective was not stated.

Effectiveness data:
The main effectiveness outcome was quality of life, measured using the Chinese version of the EQ-5D. This was from the retrospective cohort study of 89 home care and 51 institutional care patients and their caregivers. Patients and their caregivers were recruited from two hospitals, over six months to May 2008, and from two institutes for dementia care. Information on the health status of the patients was from semi-structured questionnaires completed by their caregivers.

Monetary benefit and utility valuations:
The Chinese version of the EQ-5D was used to determine a utility value for the health state of each patient in the study.

Measure of benefit:
The measure of benefit was the utility score at the time of assessment.

Cost data:
The informal care costs were from the clinical study that assessed the patients’ quality of life. The costs included medical care, food and equipment, care services and transport. Indirect costs included the time of the patients and caregivers waiting for treatment, time spent in hospitals, and lost productivity. All costs were reported in Taiwan dollars (TWD).

Analysis of uncertainty:
For categorical variables, X² tests were conducted to assess the statistical significance of between-group differences. Students t-tests were used for continuous variables.
Results
The total direct cost was TWD 144,048 with home care, and TWD 464,193 with institutional care. The total direct and indirect cost was TWD 431,951 for home care, and TWD 499,858 for institutional care. The average EQ-5D score was 0.55 for home care and 0.32 for institutional care ($p<0.001$).

As dependence and type of care both significantly affected the costs, the costs and utility weights were calculated for home care and institutional care separately for low-dependency and high-dependency patients.

Low-dependency patients in home care had costs that were TWD 141,080 lower than those of institutional care patients, and an EQ-5D score that was 0.014 higher than institutional care patients.

High-dependency home care patients had a total cost that was TWD 135,871 higher, and a utility score that was 0.004 higher than those of institutional care patients.

Authors’ conclusions
The authors concluded that it was better for patients with dementia and high physical dependence to receive institutional care and for those with low physical dependence to be cared for at home.

CRD commentary
Interventions:
The comparators were not well described. They were simply stated to be home care and institutional care. This makes it impossible to assess if the interventions can be generalised to other settings.

Effectiveness/benefits:
The study methods were not well reported; it appears to have been a retrospective cohort study (home or institutional care were determined retrospectively). It was unclear if the patient characteristics differed between groups before receiving the intervention. This design has a high risk of bias due to confounding, and no efforts to control for this were reported. The health outcomes were not fully assessed as only the utility scores at one point in time were reported. A thorough evaluation would assess the differences in health change over a sufficient period of time. These points make it impossible to determine if any differences in quality of life and costs were due to patient characteristics or the intervention. It was unclear whether the quality of life measurements were retrospective, or measured the patients’ health states at that time. The quality of life of caregivers was not included in the analysis.

Costs:
The estimates of resource use and costs were from semi-structured interviews with caregivers. It was not clear to what extent this retrospective approach was affected by recall issues. The resource use and costs were from local sources, which was appropriate, but the sources for the unit costs were not reported. The perspective was not stated, but appears to have been societal. The price year was not reported, making it difficult to reproduce the results, but it was likely to have been 2008.

Analysis and results:
The analysis and results were adequately reported. The authors discussed the limitations of their analysis, the main ones being the retrospective nature of the study, the small sample, and the lack of evaluation of the care burden on caregivers.

Concluding remarks:
The study was generally poorly reported. Its retrospective design introduced a high risk of bias in the results due to population and intervention factors. It is unclear if the authors’ conclusions were appropriate.

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