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[Intervention Review]

Special care units for dementia individuals with behavioural problems

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ABSTRACT

Background

The behavioural problems of people with dementia are often considered as one of the most challenging issues in caring. Special Care Units (SCUs) have flourished since the 1980s with the aim of taking care of dementia patients, usually those with Alzheimer's disease, and in particular for those with behavioural problems. Although lacking a standard definition, SCUs are usually situated within nursing homes and commonly include the features of trained staffing, special programming, a modified physical environment, and family involvement. The costs of SCUs are commonly higher than for 'standard' nursing home care. However, evaluations of the outcomes of SCUs have yielded conflicting results. A systematic review of this evidence is therefore warranted.

Objectives

To evaluate the effect of SCUs on behavioural problems, mood, use of restraints and psychotropic medication in patients with dementia.

Search methods

The trials were identified from a search of the Specialized Register of the Cochrane Dementia and Cognitive Improvement Group (CDCIG), *The Cochrane Library*, MEDLINE, EMBASE, PsycINFO and CINAHL on 6 September 2007 using the search terms: Special Care Units or SCUs. The CDCIG Specialized Register contains records from major healthcare databases including MEDLINE, EMBASE, CINAHL, PsycINFO, CENTRAL, and LILACS as well as many ongoing trial databases and grey literature sources.

Selection criteria

All randomized controlled trials (RCTs) in which the outcomes of SCUs were compared against traditional nursing units (nursing homes, skilled nursing facilities) were included.

Data collection and analysis

Two reviewing authors independently read the full reports of the potentially eligible studies and selected those that met the inclusion criteria. Discrepancies were resolved by discussions among the two reviewing authors. Final consensus was reached with input from a third member of the team when necessary.

Main results

No RCTs meeting the selection criteria were identified. Since it is unlikely, for ethical and practical reasons that an RCT of SCUs will be conducted, a systematic review of non-RCTs using the same protocol and criteria was conducted. There were eight non-RCTs that fulfilled the criteria for inclusion. Only four studies had data which could be extracted for pooling in meta-analysis. Differences between comparator

groups in these nonRCTs ? for example in severity of dementia - were not adequately adjusted for and were common in the trial which accounted for almost all of the positive outcomes of SCUs (Nobili, 2006)

All of the results of the outcomes came only from single studies except for "physical restraint use" at 6 months, which included data from two studies. A small improvement in total Neuropsychiatric Inventory scores, favouring SCU was noted in one study at 6, 12 and 18 months.

The use of physical restraints was less common in SCUs at 6 and 12 months (OR= 0.46 (95% CI 0.27 to 0.80), $p=0.006$; and OR=0.49 (0.27 to 0.88), $p=0.02$ respectively). Patients in SCUs were less depressed at 3 months than those in traditional nursing home (WMD -6.30 (-7.88 to -4.72) Cornell points, $p<0.00001$). There was only one observation that favoured the control group: a small but significant effect favouring traditional nursing home care was observed at 6 months in the mean number of psychotropic medications used (WMD 0.20, CI 0.00 to 0.40, $z=1.96$, $P=0.05$).

Authors' conclusions

There are no identified RCTs investigating the effects of SCUs on behavioural symptoms in dementia, and no strong evidence of benefit from the available non-RCTs. It is probably more important to implement best practice than to provide a specialized care environment.

The routine collection of data on behaviour, restraint and psychotropic drug use across multiple nursing home settings offers the best modality for formal evaluation of the benefit or otherwise of SCUs.

PLAIN LANGUAGE SUMMARY

There is limited evidence to support the assumption that the care of people with dementia in special care units is superior to care in traditional nursing units.

There is limited evidence to support the assumption that the care of people with dementia in special care units (SCUs) is superior to care in traditional nursing units. No randomized controlled trials (RCTs) can be found comparing the effect of SCUs against traditional nursing units in managing agitated behaviours in people suffering from dementia. This review has examined the results of non-RCTs. The findings about the outcomes of this review arise just from one study except for the outcome of "physical restraint use" at 6 months, which includes data from two studies. Selection bias is a major problem in non-RCTs, and confounds the limited evidence that favoured SCU care with regard to a decrease in agitated behaviour and in the use of physical restraints. A convincing case for the benefits of SCU care cannot be made and further studies are necessary.