Efficacy of integrated interventions combining psychiatric care and nursing home care for nursing home residents: a review of the literature

Collet J, de Vugt ME, Verhey FR, Schols JM

CRD summary
This review found beneficial effects of a comprehensive, integrated multidisciplinary approach combining medical, psychiatric and environmental causes and teaching behavioural management skills to nurses for double care demanding patients in nursing homes. The possibility of missing studies and lack of statistical results mean that the authors' conclusions should be interpreted with caution.

Authors' objectives
To determine which integrated interventions combining both psychiatric and nursing home care in double care demanding nursing home residents were described in the research literature, and to determine which outcomes of these interventions were reported.

Searching
PubMed and PsycINFO were searched to January 2008. Search terms were reported. References of retrieved studies were screened to identify additional relevant studies. The review was restricted to studies published in English or Dutch that included an abstract.

Study selection
Studies of nursing home care in patients (aged 55 years or older) suffering from somatic illness or dementia combined with psychiatric disorders or severe behavioural problems were eligible for inclusion. Eligible inpatient interventions had to combine psychiatric care and nursing home care. Studies had to report quantitative data on the effects of the intervention.

All included studies assessed the effects of comprehensive interventions on severe problem behaviour in double care demanding nursing home patients. To be included in the intervention programmes, the patients' problem behaviour had to be threatening and require continuous observation and be unable to be successfully treated within the nursing home or on an outpatient basis. Most studies included patients with dementia, although some studies included patients with a somatic condition, as well as patients with dementia. On average, patients had three comorbid conditions, most commonly diabetes, cerebrovascular diseases and cardiovascular diseases; their mean age ranged from 70.6 to 82.9 years. The proportion of women participants ranged from 33 to 86%; one study was restricted to men.

Most interventions were administered in nursing homes, although three interventions took place in psychiatric or other hospitals. All of the included studies used individualised treatment plans with integrated tailored psycho-social nursing, medical and pharmacological interventions. Disciplines involved in the interventions included combinations of the following: (geriatric) psychiatrist, (Giro) psychologist, certified (psychiatric) nurses, activity therapist, social worker, neurologist, physician (geriatrician, internist, general), certified behaviour technician, registrar in psycho-geriatrics, and a pharmacist. Most studies were conducted in the USA; two studies were conducted in Australia and one in the UK.

Two reviewers independently assessed studies for inclusion, disagreements were resolved through discussion. One reviewer checked the final batch of papers with a second reviewer checking a random sample.

Assessment of study quality
Studies were assessed for methodological quality based on criteria developed by the Dutch Institute for Health Care Improvement (CBO). Randomised controlled trials (RCTs) were assigned a score out of 8 based on the following items: randomisation, allocation concealment, baseline comparability, blinding of participants/providers/outcome assessors, reporting of attrition rate, use of intent-to-treat analyses and the use of validated tools. Observational studies were assigned a score out of 6 based on the following: definition of study population, selection bias, follow-up/completeness of dataset, confounders, blinding and reliable results.
The authors did not state how many reviewers performed the quality assessment.

**Data extraction**
The authors did not state how many reviewers performed the data extraction or what statistical data were extracted.

**Methods of synthesis**
A narrative synthesis was used to combine studies.

**Results of the review**
Eight studies (n=623 patients, range 15 to 164) were included in the review, comprising four RCTs, one retrospective cohort study, and three prospective case-series. Duration of follow-up ranged from seven days to six months.

The RCTs scored 5 or 6 out of 8 on the quality assessment; all fulfilled the criteria for randomisation, baseline comparability, reporting of attrition rates and validation of tools. Allocation was adequately concealed and blinding of outcome assessors were adequate in three RCTs. None of the RCTs reported that participants were blinded.

The observational studies scored between 2 and 4 out of 6 on the quality assessment. All studies fulfilled criteria for defining the study population; two scored points for avoiding selection bias, adequate follow-up, controlling for confounders and reliable results. Only one study reported that outcome assessment was blinded.

Seven studies (including three of the RCTs) showed beneficial effects on reducing agitation and physical aggression at the last follow-up of the interventions. One RCT found no difference in levels of general psychiatric symptoms and improvement in global functioning between nursing home patients who received psychiatric services and patients who received usual care.

**Authors’ conclusions**
Important elements of a successful treatment strategy for double care demanding nursing home patients should include a thorough assessment of psychiatric, medical and environmental causes, as well as programmes for teaching behavioural management skills to nurses. Double care demanding nursing home patients were found to benefit from short-term psychiatric hospital admission.

**CRD commentary**
The review addressed a broad objective which did not include assessment of the effectiveness of the intervention, although this was assessed in the review and formed the basis of the conclusions. Inclusion criteria were clearly defined. The literature search was adequate, but restriction of the review to published studies in English and Dutch meant there was a possibility of language and publication bias. Appropriate steps were taken to minimise bias and errors when selecting studies for inclusion, but it was unclear whether such steps were taken for other stages of the review.

Study quality was formally assessed using appropriate criteria; the results of the assessment were clearly reported. A narrative synthesis was appropriate given the differences between studies, but the lack of numerical and statistical results made the findings difficult to interpret.

The authors’ conclusions are based on a small number of small studies with short duration of follow-up, and the possibility of missing studies and lack of statistical results mean that the conclusions should be interpreted with caution.

**Implications of the review for practice and research**

**Practice**: The authors did not state any implications for practice.

**Research**: The author stated that there is a need for more rigorously designed RCTs studies to assess the effects of a comprehensive integrated multidisciplinary approach towards double care demanding nursing home residents. Studies should include evaluation of cost-effectiveness, staff satisfaction and patients’ quality of life.
Funding
Not stated.

Bibliographic details

PubMedID
19513988

DOI
10.1002/gps.2307

Original Paper URL

Indexing Status
Subject indexing assigned by NLM

MeSH
Aged; Aged, 80 and over; Delivery of Health Care, Integrated /standards; Female; Health Services for the Aged /standards; Homes for the Aged; Humans; Male; Mental Disorders /nursing /prevention & control /therapy; Mental Health Services /standards; Nursing Homes

AccessionNumber
12010001652

Date bibliographic record published
28/07/2010

Date abstract record published
03/11/2010

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.