A systematic review of communication strategies for people with dementia in residential and nursing homes

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CRD summary
The authors concluded that care staff can improve communication with residents with dementia when strategies are embedded in daily care activities or interventions are single-task sessions at set times. There was limited meta-analysis and the conclusions relied mostly on narrative synthesis. This and the variable study quality and potential biases in the review processes, limits the reliability of the conclusions.

Authors' objectives
To study the effects of non-pharmacological interventions in residential and nursing homes on communication between residents with dementia and care staff and on the neurological symptoms of residents with dementia.

Searching
PubMed, PsycINFO, Web of Science and The Cochrane Library were searched from 1980 to February 2007 for articles written in English or Dutch. Search terms were reported. Reference lists of included trials were searched.

Study selection
Randomised controlled trials (RCTs) and non-randomised controlled trials of non-pharmacological interventions aimed at improved communication in people with dementia living in residential care homes or nursing homes and/or professional caregivers working in long-term care facilities with patients with dementia were eligible for inclusion. If groups of residents were mixed with non-residents, at least 80% had to be residents or the results had to be available separately. Communication was defined as any sharing of information by speaking, writing, body movements or signalling. Multi-component interventions were eligible for inclusion if they included a communication component. Relevant outcomes included those that addressed the quantity or quality of communication or the non-communication of participants. Reviews, pharmacological interventions and trials in which participants served as their own control group were excluded.

The included trials were RCTs, controlled trials or quasi-experimental controlled trials and included participants with predominantly moderate to severe dementia. Two distinct trial types were identified: set-time trials in which the intervention was given during a specific time; and daily-care trials in which the intervention was given during daily tasks. Interventions in the set-time trials included a walking programme combined with communication, group validation therapy, life review programmes, cognitive stimulation therapy and activity therapy. Interventions in the daily care trials included educational programmes for caregivers, memory programmes, nursing assistant educational programmes and other programmes aimed at training caregivers to provide better communication. Reported outcomes included eye contact, communication, apathy, various communication scales or checklists and neuropsychiatric outcomes.

Two authors independently undertook study selection.

Assessment of study quality
Quality assessment was undertaken by two reviewers independently using the Higgins and Green Checklist to assess nine quality factors: randomisation, allocation concealment, inclusion/exclusion criteria specified, similarity of baseline groups, assessors blinded, loss to follow-up described, intention-to-treat analysis, power calculation and outcomes measures valid. Scores were out of nine. Disagreements between reviewers were resolved by consensus.

Data extraction
Data that related to communication outcomes and neuropsychiatric outcomes were used to calculate standardised mean differences (SMDs) and 95% confidence intervals (CIs).
The authors did not state how many reviewers performed data extraction.

Methods of synthesis
The pooled SMDs, together with 95% CIs, were calculated using a fixed-effects or random-effects meta-analysis. Statistical heterogeneity was assessed using the $I^2$ statistic. Where trials could not be combined using meta-analysis, a narrative synthesis was presented. Trials were grouped according to type of outcome (communication or neuropsychiatric) and study type (set-time or daily-care).

Results of the review
Nineteen trials were included in the review: 10 set-time trials (n=662 residents and 15 care staff), and nine daily-care trials (n=809 residents and n=472 care staff, where reported). The number of residents who participated in the trials ranged from 22 to 201. Length of follow-up ranged from four to 52 weeks. Trial quality ranged from 2 to 8. Fourteen studies scored below 6. The quality of the set-time studies was better than the quality of the daily care intervention studies, although blinding of assessors, random allocation and allocation concealment was lacking in many of the studies.

Communication outcomes: Meta-analysis showed no statistical difference between intervention and control in five set-time studies (n=371 residents, $I^2=84\%$). Seven daily-care trials showed positive effects of communication interventions. Positive communication outcomes were seen in studies in which set-time interventions were single task sessions (such as one-on-one conversations) or when communication techniques were embedded in daily tasks.

Neuropsychiatric outcomes: Meta-analysis showed no statistical difference between intervention and control in four set-time studies (n=312 residents, $I^2=39\%$). Daily care trials showed divergent effects on neuropsychiatric outcomes.

Authors' conclusions
Care staff can improve their communication with residents with dementia when strategies are embedded in daily care activities or interventions are single-task sessions at set times.

CRD commentary
Inclusion criteria for the review were broadly defined and several relevant databases were searched. There was the potential for language bias as only English- or Dutch-language articles were eligible for inclusion. There was no reported assessment of publication bias. Attempts were made to minimise error and bias in the processes of study selection and quality assessment; the same could not be assumed for data extraction. Quality assessment indicated variable quality of the included trials, which the authors acknowledged. Adequate study details were provided. There was limited meta-analysis and the authors’ conclusions relied mostly on the narrative synthesis. This and the variable study quality and potential biases in the searching and review processes, limits the reliability of the conclusions.

Implications of the review for practice and research
Practice: The authors stated that staff training should include interactive learning, refresher sessions and time for personal feedback.

Research: The authors stated that further research was needed to study the effects of communication interventions on neuropsychiatric outcomes.

Funding
Not stated.

Bibliographic details
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.