
Systematic review of the effectiveness of non-pharmacological interventions to improve quality of life of people with dementia

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CRD summary

This review found coping strategy-based family carer interventions and tailored activities improved quality of life for the person with dementia living at home. There was a lack of definitive evidence for interventions to increase quality of life of people with dementia and further research was recommended. Despite some limitations in the review conduct, this recommendation appears to be appropriate.

Authors' objectives

To review the effectiveness of non-pharmacological interventions on quality of life of people with dementia

Searching

The authors searched PubMed, Web of Science and Cochrane Database of Systematic Reviews up to January 2011 for studies published in English. Search terms were reported. They searched the references of included papers and relevant systematic reviews and consulted experts in the field.

Study selection

Eligible studies were randomised controlled trials (RCTs) of non-pharmacological interventions for people with dementia. Trials needed to include quality of life or well-being as a quantitative outcome. Dissertations, meeting abstracts and trials that used only quality of life subscales were excluded.

Various quality of life measures were used. Most trials used a valid and reliable self-report measure completed by the person with dementia, their carer or both. None of the trials were designed specifically to detect a significant difference in the quality of life outcome. People living at home and those in care homes were included. Interventions included family carer interventions, activity programmes, group cognitive stimulation therapy, care management, discussion groups, individual cognitive rehabilitation, exercise and staff training and individualised resident care plans. Various control interventions were given and the most frequent was usual care.

It was not clear whether more than one reviewer was involved in study selection for the review.

Assessment of study quality

Two reviewers independently assessed study validity using the Critical Appraisal Skills Programme (CASP) tool for RCTs. This included assessment of randomisation, blinding, intention-to-treat, reliability and validity of quality of life measures, follow-up and study power. Trials assessed positively for blinding and measurement of quality of life were deemed to be of higher quality and were given higher priority in interpretation of results. Disagreements were resolved through a third reviewer.

Data extraction

Standardised mean differences between intervention and control groups at follow-up for quality of life outcomes were extracted, calculated or obtained from individual trial authors.

It was unclear whether more than one reviewer was involved in data extraction for the review.

Methods of synthesis

Trials were grouped into interventions for people with dementia living at home and those living in care homes. Pooled standardised effect sizes were calculated where appropriate with trials weighted by the inverse variance method. Publication bias was assessed through funnel plots and use of Egger's statistic.

Results of the review

Twenty trials were included in the review. Eighteen trials included 1,793 participants and two trials did not state

participant numbers as interventions were directed at residential homes or clinics rather than individuals. Sixteen trials were rated as high quality. There was no evidence of publication bias.

People with dementia living at home: Four high quality trials assessed family carer interventions. Individually the trials did not show statistically significant differences in quality of life between intervention and control group but the pooled result was statistically significant (standardised effect size 0.24, 95% CI 0.03 to 0.45; 420 participants) in favour of the interventions, which were diverse in nature. Two trials assessed combined activity and family carer coping strategies and the pooled result showed the superiority of this intervention (standardised effect size 0.84, 95% CI 0.54 to 1.14; 191 participants).

Two high quality trials found insufficient evidence to determine that group cognitive stimulation therapy (CST) improved quality of life in people with dementia and one lower quality trial found that individual CST did not improve quality of life. A higher quality trial found carer-rated quality of life improved in participants receiving a care management system. In a lower quality trial evidence was conflicting about whether discussion groups for people with dementia and their family carers improved quality of life. A higher quality trial found that individual cognitive rehabilitation did not improve patient or carer-rated quality of life. In one higher quality trial exercise did not improve patient or care-rated quality of life.

People with dementia living in care homes: In one trial, group CST improved quality of life. There was no evidence that individualised care plans increase quality of life (two higher quality trials and one lower quality). In lower quality trials aromatherapy with lemon balm and an non-standardised psychosocial intervention were associated with improved quality of life immediately post-intervention. Higher quality trials that evaluated the impact of reminiscence groups and kit-based activities did not report a statistically significant effect.

Authors' conclusions

Coping strategy-based family carer therapy with or without a patient activity intervention might improve quality of life in people with dementia. Tailored activities for people with dementia and their carers and a system of care management may improve quality of life of people with dementia living at home. However, there was a lack of definitive evidence for any intervention that increased quality of life or well-being of people with dementia. Further research was needed.

CRD commentary

This review was based on defined inclusion criteria. The authors used a range of searching methods. Studies not in English were ineligible. Study quality was assessed and used to highlight the better evidence. There were some limitations to the pooling of results (including diversity of interventions and source of quality of life ratings). It was unclear whether two reviewers were involved in the study selection and data extraction processes of the reviews.

The conclusions on the lack of evidence and need for further research appear to be appropriate.

Implications of the review for practice and research

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

Research: The authors stated that interventions to improve the quality of life in people with dementia without a family carer were needed. A trial of the long-term effects of group cognitive stimulation therapy for care home residents was required. Trials of quality of life of people with dementia in care homes should consider the possibility of harm as well as benefit. The authors recommended a trial of a modified coping strategy and activities-based intervention for paid carers. The authors highlighted a need for a greater consensus on the definition of quality of life and a need to investigate the cost-effectiveness of these types of intervention.

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