The use of aromatherapy to treat behavioural problems in dementia

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CRD summary
The authors concluded that the few studies that evaluated the effects of aromatherapy on behavioural and psychological symptoms in patients with dementia reported mixed results. The authors’ conclusions appeared to reflect the limited and mixed evidence, but lack of reporting of review methods and the limited quality assessment mean the conclusions should be interpreted with caution.

Authors' objectives
To evaluate the effects of aromatherapy on behavioural and psychological symptoms in dementia (BPSD).

Searching
MEDLINE, EMBASE, The Cochrane Library and reference lists of relevant papers were searched until March 2007 for English-language reports. Search terms were not reported.

Study selection
Randomised controlled trials (RCTs) that evaluated the effects of aromatherapy in BPSD were eligible for inclusion.

Most of the included studies evaluated lavender oil alone or as part of a blend predominantly delivered by touch, massage or diffuser; other studies evaluated lemon balm or combination of oils. Studies used a variety of methods to assess outcomes including validated scales, duration of sleep, time to administer medicines and opinions of family and staff. Most participants had severe dementia.

The authors stated neither how papers were selected for the review nor how many reviewers performed the selection.

Assessment of study quality
The authors did not report a formal assessment of validity, but commented on sample size, blinding and methods of data analysis.

Data extraction
The authors stated neither how data were extracted for the review nor how many reviewers performed the data extraction. For each study, results were generally extracted as text without accompanying data.

Methods of synthesis
The studies were combined in a narrative synthesis that tended to focus on study characteristics and methodological flaws rather than results.

Results of the review
Thirteen RCTs were included (298 patients). Study quality varied. Sample size ranged from seven to 72; eight studies had less than 25 patients. About half of the studies were placebo controlled. One was double blinded. Two appeared to be single blinded. Two studies that reported quantitative data did not use any statistical analysis. Oils were selected on an individual basis in only one study.

The largest study (72 patients) reported an improvement in agitation among patients receiving lemon balm compared to placebo (35% versus 11%). Other studies reported mixed results. There appeared to be no association between outcome and method of administration or delivery.

Studies did not systematically assess side effects.

Authors' conclusions
The few studies that evaluated the effects of aromatherapy on behavioural and psychological symptoms in patients with dementia reported mixed results.
CRD commentary
The review question was clearly stated and inclusion criteria were defined for participants, intervention and study design. Several relevant sources were searched, but search terms were not reported and no attempts were made to minimise publication and language biases. Only RCTs were included. Study validity was not formally assessed, but some methodological limitations were discussed. Methods used to select studies and extract data were not described and so it was unknown whether efforts were made to reduce reviewer errors and bias. In view of the diversity among studies, a narrative synthesis was appropriate; however, a more detailed summary of study outcomes would have been useful if at all possible given the limitations of the studies. The authors’ conclusions appeared to reflect the limited and mixed evidence, but lack of reporting of review methods and limited assessment of quality made it difficult to assess reliability.

Implications of the review for practice and research
Practice: The authors stated that, in view of the limitations of the evidence, clinicians should be cautious when recommending aromatherapy for patients with BPSD.

Research: The authors did not state any research implications of the review.

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