

Review: reality orientation improves cognitive functioning and behaviour in dementia

Spector A, Orrell M, Davies S, et al. *Reality orientation for dementia: a review of the evidence of effectiveness (Cochrane Review, latest version 23 April 1998)*. In: *Cochrane Library*. Oxford: Update Software.

Question

In elderly people with dementia, does reality orientation therapy improve behaviour and cognitive functioning?

Data sources

Studies were identified by searching Medline (1966–97), PsycLIT (1974–97), EMBASE/Excerpta Medica, the Cochrane Database of Systematic Reviews, OMNI, BIDS, Dissertation Abstracts International (1861–1997), and SIGLE using the terms reality orientation, dementia, controlled study, and trial; searching relevant internet sites (Healthweb, Medweb, Mental Health Infosource, American Psychiatric Association, Internet Mental Health, and NHS Confederation); handsearching 6 journals and the Alzheimer's Disease Society library; reviewing bibliographies of identified articles; and contacting experts.

Study selection

Studies were selected if they were randomised controlled trials evaluating the effectiveness of reality orientation in elderly people (mean age > 55 y) with a diagnosis of dementia according to *DSM-IV* or *ICD-10* criteria. A measure of cognitive functioning and/or behavioural disturbance and a completion rate of $\geq 60\%$ were also needed.

Data extraction

Data were extracted on study design features, patient characteristics, and change in cognitive functioning or behaviour. Investigators were contacted for missing data.

Main results

8 studies met the selection criteria, and 6 were used for the meta-analysis involving 125 patients (67 in the experimental groups and 58 in the control groups). A meta-analysis was done using a random effects model. Cognitive tests were used in all 6 studies and the pooled results favoured reality orientation (table). 3 of the 6 studies used behavioural outcome measures with a total of 48 patients (28 in the experimental groups and 20 in the control groups). All 3 showed statistically non-significant results but for each study the trend favoured treatment. The total behavioural result favoured treatment (table).

Conclusion

Reality orientation improves cognitive functioning and behaviour in elderly people with dementia.

Reality orientation v control group in elderly people with dementia (treatment duration, range 4 to 21 weeks)

Outcomes	Number of studies	Standardised mean difference (95% CI)	Proportion of control people with a worse outcome than the average score in the reality orientation group
Cognitive impairment	6	-0.59 (-0.95 to -0.22)	72%
Behavioural disturbance	3	-0.67 (-1.27 to -0.05)	75%

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Commentary

Reality orientation is a psychological therapy aimed at reducing confusion and inappropriate behaviours in people with dementia. It is usually applied in residential or inpatient settings.

Reality orientation has been divided into a 24 hour or informal format and a classroom or group format. The informal format depends on environmental cues and memory aids such as clocks, calendars, newspapers, door labels, and incidental conversations that reinforce orientating content. The classroom format involves groups of about 6 people with similar levels of cognitive function, meeting for 30–60 minutes, 3–5 times weekly, with 1 or 2 facilitators focusing on orientating tasks. The classic task is completing the reality orientation board which summarises reality orientating information such as the day, date, place, weather, next meal, and so on.

Practitioners sometimes have concerns that reality can be irrelevant and

distressing for people with dementia. Instead, validating their feelings (validation therapy) or facilitating their life review (reminiscence therapy) are currently preferred interventions.

Therefore this methodologically sound systematic review by Spector *et al* is timely. The results show that classroom reality orientation used for older people (> 55 y) with dementia, mainly living in residential settings (7 out of 8 studies), has a small but statistically significant beneficial effect on measures of cognition, and a small but statistically non-significant effect on measures of behavioural disturbance. These effects are independent of the control groups which in half the studies were untreated and in the other half were treated with social therapy. 2 studies looked at longer term effects; 1 showed sustained improvement 1 month after finishing reality orientation, the other showed worsening to below baseline after 10 weeks.

The authors highlight the need for further research. In particular, the need to identify the types of people most likely to benefit from reality orientation, the use of 24 hours versus classroom programmes, the application of reality orientation in other settings such as community day centres, and consideration of other outcome measures. Added to these should be the effects of reality orientation on affective components of mental state, its effect on interpersonal communications, and its benefits to formal and informal carers.

In some situations, reality orientation can be an effective psychological therapy for people with dementia. Further research is needed to define its precise role.

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