

Best Evidence Summaries of Topics in Mental Healthcare

BEST *in* **MH** *clinical question-answering service*

Question

“For people with dementia, how effective is cognitive stimulation therapy compared to any other treatment in achieving improved patient outcomes?”

Clarification of question using PICO structure

Patients: People with dementia
Intervention: Cognitive Stimulation Therapy
Comparator: Any other treatment
Outcome: Any patient outcomes

Clinical and research implications

The authors of a systematic review (SR) did not make specific clinical recommendations, but did state that the evidence base for the effectiveness of cognitive stimulation therapy for people with mild to moderate dementia in relation to cognitive function, as well as quality of life and communication, have been demonstrated. These benefits were over and above any medication effects.

Further research was recommended in a number of areas, but the authors emphasised a clear need to assess the potential benefits of longer term cognitive stimulation programmes and their clinical significance.

What does the evidence say?

Number of included studies/reviews (number of participants)

We identified one relevant systematic review (SR) that met the inclusion criteria (Wood et al. 2012). This SR included 15 randomised controlled trials (RCTs) with 718 participants. The aim of the review was to evaluate the effectiveness of cognitive stimulation interventions on improving cognition for people with dementia.

Main Findings

At the end of the treatment periods, there were significant statistical differences between cognitive stimulation and controls in favour of treatment for the following outcomes: cognitive function (n=658, 14 RCTs, SMD 0.41 [95% CI 0.25 to 0.57]), communication and social interaction (n=223, 4 RCTs, SMD 0.44 [95% CI 0.17 to 0.71]), and well-being and quality of life (using the Life Satisfaction Index and QoL-AD) (n=219, 4 RCTs, SMD 0.38 [95% CI 0.11 to 0.65]). No statistical differences between groups were observed for self-reported mood, staff reported mood, activities of daily living (ADL), behaviour problems, or general behaviour.

Authors Conclusions

The authors of the SR concluded that there was consistent evidence that cognitive stimulation programmes benefit cognition in people with mild to moderate dementia. They also noted, however, that the trials were of variable quality with small sample sizes.

Reliability of conclusions/Strength of evidence

The SR was well conducted, although it is not clear whether or not some of the studies should have been pooled due to clinical heterogeneity amongst the studies. Overall, the authors' conclusion reflects the results and was suitably cautious given the methodological limitations of the studies included in the SR.

What do guidelines say?

A SIGN guideline on managing patients with dementia recommends that cognitive stimulation should be offered to individuals with dementia. Cognitive stimulation training can be carried out at home by a caregiver, with no risk to the person with dementia and with minimal training/education of the carer.

The guideline also presented the following information:

Cognitive stimulation may occur informally through recreational activities, or formally through:

- a programme of memory provoking, problem-solving and conversational fluency activities
- the spaced retrieval method
- face name training

Formal cognitive stimulation produced a positive clinical impact on cognitive function in people with dementia. Although memory of specific pieces of information was improved it did not produce general benefits to memory function. These studies did not generalise to overall neuropsychological function and had short follow up. (1+ graded)

Date question received: 05/04/2012

Date searches conducted: 10/04/2012

Date answer completed: 13/04/2012

References

Systematic Reviews

Woods B, Aguirre E, Spector A E, Orrell M. Cognitive stimulation to improve cognitive functioning in people with dementia. Cochrane Database of Systematic Reviews 2012, Issue 2. Art. No.: CD005562. DOI: 10.1002/14651858.CD005562.pub2.

Guidelines

Scottish Intercollegiate Guideline Network (SIGN). Management of patients with dementia: A national clinical guideline. Edinburgh: SIGN; 2006 (SIGN publication no. 86)

<http://www.sign.ac.uk/pdf/sign86.pdf>

Results

Systematic Reviews

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Woods et al. (2012)	December 2011	<p><i>Studies:</i> RCTs, English language, published in peer review journals.</p> <p><i>Participants:</i> • Participants with a diagnosis of dementia. The main diagnostic categories that were included were Alzheimer's disease, vascular dementia or mixed Alzheimer's and vascular dementia. These diagnostic categories were considered together. Older studies, included from the previous review of RO, used other terms for this population but were included where the review authors were satisfied that the included population would now be described as having a dementia. Participants with mild cognitive impairment, where the extent of cognitive impairment or its effects on day-to-day function were insufficient to justify a dementia diagnosis, were not included.</p> <p>• Severity of dementia was indicated through group mean scores, range of scores, or individual scores on a standardised scale such as the Mini-Mental State Examination (MMSE) or Clinical Dementia Rating (CDR) All levels of</p>	15 studies (n=718)	<p>Cognitive stimulation vs. no cognitive stimulation*: (*no cognitive stimulation typically included treatment as usual [which may include medication], no treatment, watching TV, or pencil and paper tasks)</p> <p>There were significant statistical differences between groups in favour of cognitive stimulation for the following outcomes: cognition (n=658, 14 RCTs, SMD 0.41 [95% CI 0.25 to 0.57]); communication and social interaction (n=223, 4 RCTs, SMD 0.44 [95% CI 0.17 to 0.71]); well-being and quality of life (using the Life Satisfaction Index and QoL-AD) (n=219, 4 RCTs, SMD 0.38 [95% CI 0.11 to 0.65])</p> <p>There were no statistical differences between groups for the following outcomes: self-reported mood (n=201, 5 RCTs, SMD 0.22 [95% CI -0.09 to 0.53]) staff reported mood (n=239, 4 RCTs, SMD 0.05 [95% CI -0.21 to 0.31]); activities of daily living (ADL) (n=160, 4 RCTs,</p>	Low (the SR authors combined comparators together in the meta-analyses and it is not entirely clear if this was justified for all of the included studies)


	<p>severity were included.</p> <ul style="list-style-type: none"> • Qualifying participants received the intervention in a range of settings, including their own home, as outpatients and in daycare and residential settings. • No specific restrictions regarding age were applied. • Data from family caregivers were included where this was available and where the relationship between the caregiver and the person with dementia was specified, including whether they were co-resident. • The number of participants receiving concurrent treatment with acetylcholinesterase inhibitors was documented, where possible. <p><i>Intervention:</i> • Studies were considered for this review if they described a cognitive stimulation intervention targeting cognitive and social functioning. These interventions may also have been described as RO groups, sessions or classes.</p> <ul style="list-style-type: none"> • The definition of cognitive stimulation as proposed by Clare 2004 was adopted. This meant that some studies which described their intervention as 'cognitive stimulation' were excluded. Interventions needed to offer exposure to generalised cognitive activities rather than training in a specific modality. • Interventions were typically conducted in a group to enhance social functioning, or could involve family caregivers. 		<p>SMD 0.21 [95% CI -0.05 to 0.47]); behaviour problems (n=166, 3 RCTs, SMD -0.14 [95% CI -0.44 to 0.17]); general behaviour (n=416, 8 RCTs, SMD 0.13 [95% CI -0.07 to 0.32])</p> <p>Outcomes for family caregivers were also presented, but not data extracted for this summary</p>	
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	<ul style="list-style-type: none">• Studies were included if a comparison was made to 'no treatment', 'standard treatment' or placebo. Standard treatment was understood to be the treatment that was normally provided to patients with dementia in the study setting and could include provision of medication, clinic consultations, contact with a community mental health team, day care, or support from voluntary organisations. Placebo conditions could consist, for example, of an equivalent number of sessions in which general support, but no structured intervention, was offered.• The minimum duration of intervention for inclusion of a study was one month. There were no restrictions on the number of treatment sessions, although this was noted. <p><i>Outcome:</i> • Outcomes were considered in relation to the impact of the intervention on the person with dementia and on the primary family caregiver. Studies could present data in both these categories.</p> <ul style="list-style-type: none">• Short term (immediately after the intervention) and medium term (follow-up one month to one year after the intervention finished) outcomes were considered.• Outcomes for the person with dementia and the caregiver were considered where these were assessed using scores on standardised tests, rating scales and questionnaires.• Rates of attrition and reasons for participants dropping out from the study were noted.			
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		<p>Outcome measures for the person with dementia sought to identify whether changes were observed following the intervention. The following variables were considered as outcome measures for the person with dementia.</p> <ul style="list-style-type: none">• Performance on at least one test of cognitive functioning (including tests of memory and orientation).• Self-reported, clinically-rated or carer-reported measures for mood of the person with dementia.• Self-reported or carer-reported quality of life or well-being measures for the person with dementia.• Observer or carer ratings of everyday functioning (activities of daily living) of the person with dementia.• Carer ratings of the participant's behaviour.• Clinician or carer ratings of neuropsychiatric symptoms or behaviour problems of the person with dementia.• Clinician or carer ratings of the social engagement of the person with dementia. <p>'Carer' in this context included care staff as well as family caregivers.</p> <p>The outcomes for the family caregiver that were considered included any of the following.</p> <ul style="list-style-type: none">• Self-reported well-being, depression and anxiety.• Self-reported burden, strain and coping.			
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
Risk of Bias:

SRs

Author (year)	Risk of Bias				
	Inclusion criteria	Searches	Review Process	Quality assessment	Synthesis
Woods et al. (2012)					

 Low Risk

 High Risk

 Unclear Risk

Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
NICE	(cognitive stimulation therapy OR CST) AND (dementia)	34	1
Cochrane Library*	Cognitive Stimulation	9	1
Summary	NA	NA	1

*N.B. Because a high quality Systematic Review was found, that was published within the last 12 months, no further searches were conducted.

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