

# Best Evidence Summaries of Topics in Mental Healthcare

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

## Question

“In adults and older adults with memory difficulties (including mild cognitive impairment but excluding dementia), what is the most effective psychological intervention for improving patient outcomes?”

## Clarification of question using PICO structure

*Patients:* Adults and older adults with memory difficulties (including mild cognitive impairment but excluding dementia)  
*Intervention:* Any psychological intervention  
*Comparator:* Any  
*Outcome:* Any patient outcomes

## **Clinical and research implications**

There appeared to be some suggestion that various types of psychological interventions can improve outcomes in older adults with mild cognitive impairment. Although three SRS and 5 RCTs were identified, the evidence base was weak. The main limitation was failure to conduct an appropriate analysis that compared results between treatment groups; included SRs were also missing relevant studies. This made it difficult to draw conclusions. Most studies were small and of short duration. Further studies, or re-analysis of existing studies, using robust analysis methods that compare findings between treatment groups are required to be able to make firm recommendations.

### **What does the evidence say?**

#### ***Number of included studies/reviews (number of participants)***

Three systematic reviews (SRs) (26 studies) evaluated interventions for older adults with mild cognitive impairment. Two SRs were restricted to randomised controlled trials (RCTs) and controlled clinical trials (CCTs)(Cooper 2013, Reijnders 2013). In one SR the included study designs were unclear (Li 2011). There was some overlap in included studies between SRs; three studies were included in all three SRs and a further three in two SRs. We included an additional five randomised controlled trials (RCTs) (280 participants) not included in the SRs. A wide variety of interventions were evaluated including computer-assisted cognitive training, strategy training, memory strategy training, virtual reality memory training, lifestyle education, cognitive rehabilitation programmes, cognitive stimulation, attentional control training programme behavioural analysis, family psychological interventions, and individual psychological interventions.

#### ***Main Findings***

##### ***Computer assisted training***

One SR found that computer assisted cognitive training (3 studies) did not improve global cognition and there were no consistent beneficial effects for other secondary outcomes (Cooper 2013). A second SR (Reijnders 2013) also reported no beneficial effects of computer assisted training based on a single study that was also included in the previous review.

##### ***Long term (>6 months) group psychological interventions***

One SR found that memory training combined with cognitive stimulation/psychoeducation showed beneficial effects on global cognition in one trial but did not improve outcomes in a second trial(Cooper 2013). The second trial was also included in the other two SRs.

One RCT assessed a 6 month cognitive intervention programme. Results were difficult to interpret as only within group differences were reported and no indication was provided regarding whether reported increases/decreases suggested beneficial effects of the intervention (Rojas 2013). Participants in the intervention group showed no differences in the mini-mental state examination (MMSE), memory free recall (Mem-REC), phonological fluency (PhF), or clinical dementia (CD) ratings. They showed significant decreases in semantic fluency (SF) ( $p=0.04$ ) and the Boston naming test ( $p=0.004$ ). Participants in the control groups showed significant increases in MMSE, Mem-REC, SF and a significant decrease in CD. There were no differences in Boston ratings or PhF. Conversion to dementia was seen in four patients at 2-month follow-up, 1 in the intervention group and 3 in the control group.

### *Short term (<6 months) mem group psychological interventions*

One SR found no effect on memory but did find improvements of specific short term interventions to improve reasoning and processing speed (Cooper 2013). A second SR found that overall cognition showed a moderate improvement in patients with MCI who received cognitive interventions (SMD 0.41, 95% CI 0.21, 0.74, 15 studies 337 participants). (Li 2011) Beneficial effects were also found for episodic memory, executive function, visuo spatial ability, attention/processing speed, language and overall self-ratings. No effect was seen in the control group for any outcomes. However, between group comparisons were not reported. There were substantial differences between studies for most outcomes evaluated. The third SR found some beneficial effects of a cognitive behavioural programme, behavioural analysis and memory strategy training, and strategy training based on single studies. No beneficial effects of training in face-name recognition was found (Reijnders 2013).

One RCT that assessed an attentional control training programme found that performance on an arithmetic and visual detection task was improved (Gagnon 2012) for both the intervention group consisting of variable priority training and the control consisting of fixed priority training. A second RCT assessed memory training and found greater within group changes than were found in the control groups but no measure of the difference between groups was provided (Olchik 2013). An RCT of virtual reality memory training found greater improvements in cognitive abilities, verbal memory, executive functions and depression compared to music training. No differences between groups were found for visuospatial processing or activities of daily living. Effect sizes comparing differences between groups were not reported (Optale 2010). An RCT in which patients were randomised to take part in a "virtual week" board game with spaced retrieval compared to the same board game with standard retrieval found better performance among those in the spaced retrieval group (Ozgis 2008).

### *Family or individual psychological interventions*

One SR reported no effect of family or individual psychological interventions based on single studies (Cooper 2013).

### **Authors' Conclusions**

One SR of 14 RCTs concluded that there was no replicated evidence that any intervention was effective (Cooper 2013). An SR of 17 studies (designs unclear) concluded that cognitive interventions have the potential to enhance cognitive and functional abilities in persons with MCI. (Li 2011) The third SR which included only 6 RCTs and CCTs concluded that cognitive training can be effective in improving various aspects of objective cognitive functioning (Reijnders 2013).

Individual RCTs generally showed positive but cautious conclusions. Gagnon (2012) concluded that an attentional control training programme may improve attentional control in persons with MCI and an executive deficit. Olchik (2013) concluded that MT is a feasible non-pharmacological intervention which might bring positive performance change in older adults facing cognitive impairment. Ozgis (2008) concluded that spaced retrieval may be an effective means of helping cognitively impaired older adults maintain functional independence. Optale (2010) concluded that VRMT may improve memory function in elderly adults by enhancing focused attention. Rojas (2013) concluded that persons with MCI can improve their performance on cognitive and functional measures when provided with early cognitive training and it could persist in a long-term follow-up.

### **Reliability of conclusions/Strength of evidence**

The evidence base was weak and all included studies, both SRs and RCTs, had major methodological limitations. Two SRs (Reijnders 2013, Li 2011) and most of the RCTs did not conduct an appropriate analysis. They provided information only on the effect (mainly change from baseline) in the

intervention group with no information on how this compared to the control group; some studies provided no numerical results data. It was therefore not possible to draw firm conclusions regarding the effect of the intervention compared to the control intervention from these studies. The third SR did not use a sufficiently sensitive search to identify studies and so is also likely to have missed relevant studies; this is confirmed by the fact that studies included in other reviews and some of the additional RCTs that we found would have been eligible for this review but were not included.(Cooper 2013) None of the RCTs reported details on randomisation and concealment of treatment allocation, three studies reported that participants were not blinded and outcome data was incomplete in three studies.

### **What do guidelines say?**

Neither National Institute for Health and Care Excellence (NICE) nor Scottish Intercollegiate Guidelines Network (SIGN) guidelines comment upon the use of psychological interventions for treating individuals with memory impairment including MCI, but excluding dementia.

Date question received: 13/11/2014  
Date searches conducted: 09/12/2014  
Date answer completed: 20/01/2015

### **References**

#### **SRs**

Cooper, C., Li, R., Lyketsos, C., & Livingston, G. (2013). Treatment for mild cognitive impairment: systematic review. *The British Journal of Psychiatry*, 203(4), 255-264.

Li, H., Li, J., Li, N., Li, B., Wang, P., & Zhou, T. (2011). Cognitive intervention for persons with mild cognitive impairment: A meta-analysis. *Ageing Research Reviews*, 10(2), 285-296.

Reijnders, J., van Heugten, C., & van Boxtel, M. (2013). Cognitive interventions in healthy older adults and people with mild cognitive impairment: a systematic review. *Ageing Research Reviews*, 12(1), 263-275.

#### **RCTs**

Gagnon, L. G., & Belleville, S. (2012). Training of attentional control in mild cognitive impairment with executive deficits: Results from a double-blind randomised controlled study. *Neuropsychological Rehabilitation*, 22(6), 809-835.

Olchik, M. R., Farina, J., Steibel, N., Teixeira, A. R., & Yassuda, M. S. (2013). Memory training (MT) in mild cognitive impairment (MCI) generates change in cognitive performance. *Archives of Gerontology and Geriatrics*, 56(3), 442-447.

Optale, G., Urgesi, C., Busato, V., Marin, S., Piron, L., Priftis, K., ... & Bordin, A. (2010). Controlling memory impairment in elderly adults using virtual reality memory training: a randomized controlled pilot study. *Neurorehabilitation and Neural Repair*, 24(4), 348-357.

Ozgis, S., Rendell, P. G., & Henry, J. D. (2008). Spaced retrieval significantly improves prospective memory performance of cognitively impaired older adults. *Gerontology, 55*(2), 229-232.

Rojas, G. J., Villar, V., Iturry, M., Harris, P., Serrano, C. M., Herrera, J. A., & Allegri, R. F. (2013). Efficacy of a cognitive intervention program in patients with mild cognitive impairment. *International Psychogeriatrics, 25*(05), 825-831.

## Results

### Systematic Reviews

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Cooper et al. (2013)	06/2012	<p><i>Participants:</i> Patients with mild cognitive impairment.</p> <p><i>Intervention:</i> Any pharmacological or non-pharmacological intervention; only non-pharmacological interventions considered here. These included computer-assisted cognitive training, family psychological interventions, and individual psychological interventions.</p> <p><i>Comparator:</i> Any.</p> <p><i>Outcome:</i> Cognition, conversion to dementia, functioning, behaviour, quality of life.</p> <p><i>Study design:</i> RCTs.</p>	14	<p>Computer assisted cognitive training (3 trials) did not improve global cognition (2 trials) and there no consistent beneficial effects for other secondary outcomes.</p> <p>Longer term (6 months) psychological interventions (2 trials) based on memory training showed beneficial effects on global cognition in one trial but did not improve outcomes in a second trial.</p> <p>Two small short term studies found no effect on memory but did find improvements of specific intervention to improve reasoning and processing speed.</p> <p>There was no effect of family (1 study) or individual (1 study) psychological interventions.</p> <p>Group exercise (2 studies) showed beneficial effects on within group measures of cognitive function in one study but showed no effect in a second high quality study. Individual exercise (3 studies) showed mixed effects but studies were of low quality.</p>	High

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Li et al. (2011)	09/2009	<p><i>Participants:</i> Patients with mild cognitive impairment.</p> <p><i>Intervention:</i> Cognitive interventions (e.g., cognitive stimulation or cognitive rehabilitation interventions)</p> <p><i>Comparator:</i> No comparators were specified</p> <p><i>Outcome:</i> Memory (episodic and semantic), executive functioning, attention/processing speed, visuo-spatial ability, general cognition, emotional state (depression and anxiety), activities of daily living, quality of life.</p> <p><i>Study design:</i> Studies that provided pre- and post-test data for the intervention group. Case studies were excluded. Details on included study designs were lacking.</p>	17	<p>Overall cognition showed a moderate improvement in patients with MCI who received cognitive interventions (SMD 0.41, 95% CI 0.21, 0.74, 15 studies 337 participants). Beneficial effects were also found for episodic memory, executive function, visuo-spatial ability, attention/processing speed, language and overall self-ratings. No effect was seen in the control group for any outcomes. However, between group comparisons were not reported. There were substantial differences between studies for most outcomes evaluated.</p>	High

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Reijnders et al. (2013)	02/2012	<p><i>Participants:</i> Healthy older adults and patients with mild cognitive impairment.</p> <p><i>Intervention:</i> Any cognitive interventions. Interventions evaluated included computer based auditory processing speed training, training in face name associations, strategy training, and memory strategies training and lifestyle education, cognitive rehabilitation program, and behavioural analysis and memory strategy training.</p> <p><i>Comparator:</i> Any.</p> <p><i>Outcome:</i> Objective memory measures, executive functioning, attention, general cognitive functioning, subjective cognition measures, daily functioning.</p> <p><i>Study design:</i> RCTs and clinical trials</p>	35 (6 in patients with MCI)	<p>No numerical results were reported; only an indication of whether a significant within group effect of the intervention was found was provided. Two studies (one of computer-based auditory processing speed and one of training in face-name associations) showed no effect of the intervention. Two studies (one of a cognitive behavioural programme and one of behavioural analysis and memory strategy training) showed beneficial effects in the intervention group for most outcomes assessed. Two further trials (one of strategy training and one of memory strategies training and lifestyle education) reported beneficial effects for some but not all outcomes assessed.</p>	High

## RCTs

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Gagnon et al. (2012)	<p><i>Participants:</i> Older adults with mild cognitive impairment with executive deficits, recruited from memory clinics. Exclusions: fulfilled criteria for dementia, alcoholism, general anaesthesia in previous 6 months, presence or history of severe psychiatric disorders, traumatic brain injury, neurological disorders, stroke.</p> <p><i>Intervention:</i> Attentional control training programme (a computer-based training programme involving Variable Priority (VP) coordination of both components of a dual task, to which was added a self-regulatory strategy designed to augment meta-cognition).</p> <p><i>Comparator:</i> Active control (Fixed Priority (FP) training – rote practice of the same dual task involving a visual detection task combined with an alpha-arithmetic task).</p> <p><i>Outcome:</i> Focused attention task, divided attention task, Test of Everyday Attention (TEA), Trails A and B, Divided Attention Questionnaire (DAQ), Wellbeing Scale (WBS).</p>	26	Performance improved (accuracy and reaction time) on the alpha-arithmetic task and the visual detection task in both intervention groups. Only participants receiving VP training significantly improved their dual-task cost in accuracy for the visual detection task.	High Strange data

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Olchik et al. (2013)	<p><i>Participants:</i> Healthy adults and adults with mild cognitive impairment, aged 60 years and above.</p> <p><i>Intervention 1:</i> Memory training group – 8 sessions, 90 minutes, twice a week</p> <p><i>Intervention 2:</i> educational intervention group - 8 sessions, 90 minutes, twice a week</p> <p><i>Comparator:</i> No intervention.</p> <p><i>Outcome:</i> Memory and cognition (MMSE; FAS Verbal Fluency Test, FVT; Verbal Fluency animal category, VF; Rey Auditory Verbal Learning Test, RAVLT; Rivermead Behavioural Memory Test, RBMT).</p>	142 (results data for 112)	<p>Memory training was associated with greater within group changes than the educational intervention or no treatment control. However, there was no evidence of a difference between intervention groups for measures of VF, FAS, RAVLT (learning, immediate, delayed recall), or RBMT (screening, immediate story, delayed story) outcomes. All showed significant difference between healthy adults and those with MCI.</p>	High

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Optale et al. (2010)	<p><i>Participants:</i> Older adults (<math>\geq 65</math> years) with memory deficits (<math>&lt; 15.76</math> on verbal Story Recall Test), recruited from a single care facility.</p> <p><i>Exclusions:</i> serious sensorimotor deficits, psychiatric disorders, participation in previous cognitive training, serious medical conditions.</p> <p><i>Intervention:</i> Virtual reality (VR) memory training (3 sessions per week, over 3 months) consisting of auditory and VR experiences. This involved moving along paths and paying attention to what was experienced along the way.</p> <p><i>Comparator:</i> Face-to-face training sessions involving music (3 sessions per week, for 3 months).</p> <p><i>Outcome:</i> General cognitive ability (MMSE; Mental Status in Neurology, MSN), short-term memory (Digit Span Test), executive function (Phonemic Verbal Fluency, PVF; Dual Task Performance Test, DTP; Cognitive Estimation Test, CET), visuospatial processing (Clock Drawing Test, CDT), daily-life functioning (Activities of Daily Living Functions and Mobility, ADLF and ADLM; Instrumental Activities of Daily Living, IADL), depression (Geriatric Depression Scale, GDS).</p>	36 (31 included in analyses)	<p>General cognitive abilities (MMSE), verbal memory (digit span test and verbal story recall), executive functions (phonemic verbal fluency, dual task performance, cognitive estimate test), and depression (geriatric depression scale) showed significantly greater improvements in the intervention group compared to control (<math>p &lt; 0.01</math>). There was no significant difference between groups for visuospatial processing (clock drawing test) or activities of daily living (ADL) (ADL-functions and ADL-mobility). Effect sizes were only reported for change from baseline to post-treatment and post-booster for the experimental group not for the control group or for differences between groups. These generally suggested moderate effects of training (effect sizes ranged from 0.12-0.75) and small effects of booster sessions (effect sizes ranged from 0.05 to 0.4).</p>	High Within group differences and only for experimental group

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Ozgis et al. (2008)	<p><i>Participants:</i> Older adults living independently in the community with mild cognitive impairment (&lt;27 on mini mental state examination) A matched health control group was also included and separately randomised to each intervention.</p> <p><i>Intervention:</i> Spaced retrieval. Participants took part in 'Virtual Week', a board game which requires making choices about daily activities and remembering to carry out activities. Activities could be regular (e.g., taking medication at a certain time of day, every day) and irregular (making a phone call at a certain time on a certain day). Participants were tested by having to correctly recall aloud the tasks they performed in the game at 5-, 10-, 20-, 40, and 60-second intervals.</p> <p><i>Comparator:</i> Standard retrieval. The same task as above, but participants were tested by having to correctly recall aloud three times each of the tasks they performed in the game</p> <p><i>Outcome:</i> Prospective memory (correct recall responses of tasks carried out in the game for each of the two conditions) for regular and irregular tasks.</p>	30	<p>Patients randomised to the standard rehearsal groups showed worse performance than those randomised to spaced retrieval for both regular and irregular activities. Numerical between group results were not reported. Participants in the spaced retrieval group showed similar performance to healthy controls while those in the standard rehearsal group showed much worse performance than healthy controls.</p>	<p>Unclear No numerical data.</p>

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Rojas et al. (2013)	<p><i>Participants:</i> Older adults with mild cognitive impairment (Petersen's criteria), living in the community. Exclusions: other neurologic disease or major psychiatric diagnoses, drug/alcohol abuse/dependence, treated with cholinesterase inhibitors or memantine.</p> <p><i>Intervention:</i> Cognitive intervention programme (teaching cognitive strategies, cognitive training, and use of external aids). Two hours, twice per week for six months. This occurred alongside routine treatment.</p> <p><i>Comparator:</i> Routine treatment without cognitive intervention.</p> <p><i>Outcome:</i> Cognition (MMSE; memory free recall, Mem-REC; Clinical Dementia Rating Scale, CDRS; Boston Naming Task, BNT; block design task; phonological fluency, PhF; semantic fluency task).</p>	46	<p>Participants in the trained group showed no differences in the mini-mental state examination (MMSE), memory free recall (Mem-REC), phonological fluency (PhF), or clinical dementia (CDRS) ratings. They showed significant decreases in semantic fluency (SF) (<math>p=0.04</math>) and Boston naming test (<math>p=0.004</math>).</p> <p>Participants in the control groups showed significant increase in MMSE, Mem-REC, SF and a significant decrease in CDRS. There were no differences in Boston ratings or PhF.</p> <p>Conversion to dementia was seen in four patients at 2-month follow-up, 1 in the intervention group and 3 in the control group.</p> <p>No indication of whether a decrease was good or bad was provided.</p> <p>Between group differences were not reported.</p>	High  Within group data only

**Risk of Bias:**

**SRs**

Author (year)	RISK OF BIAS				
	Inclusion criteria	Searches	Review Process	Quality assessment	Synthesis
Cooper et al. (2013)					
Li et al. (2011)					
Reijnders et al. (2013)					

**RCTs**

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
Gagnon et al. (2012)						
Olchik et al. (2013)						
Optale et al. (2010)						
Ozgis et al. (2008)						
Rojas et al. (2013)						

 Low Risk

 High Risk

 Unclear Risk

## Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
<b>SRs and Guidelines</b>			
NICE	memory impairment (46) mild cognitive impairment (86)	86	0
DARE	1 ((psycholog* adj2 therap*) OR CBT OR (cognit* adj2 behavio*) OR psychoeducat* OR psychotherap*) IN DARE 1806 Delete 2 MeSH DESCRIPTOR Behavior Therapy EXPLODE ALL TREES 1230 Delete 3 MeSH DESCRIPTOR Psychotherapy EXPLODE ALL TREES 1957 Delete 4 MeSH DESCRIPTOR Psychotherapy, Brief EXPLODE ALL TREES 60 Delete 5 MeSH DESCRIPTOR Psychotherapy, Group EXPLODE ALL TREES 206 Delete 6 #1 OR #2 OR #3 OR #4 OR #5 2738 Delete 7 (MCI or "mild cognitive impairment*" OR memory OR memories) IN DARE 302 Delete 8 MeSH DESCRIPTOR Mild Cognitive Impairment EXPLODE ALL TREES 28 Delete 9 MeSH DESCRIPTOR Memory Disorders EXPLODE ALL TREES 36 Delete 10 #7 OR #8 OR #9 312 Delete 11 #6 AND #10 64 Delete	64	4
<b>Primary studies</b>			
CENTRAL	ID Search Hits #1 MeSH descriptor: [Psychotherapy] explode all trees 15901 #2 psychotherap* or (psychological adj2 interven*) or (psychological adj2 therap*) 9574 #3 #1 or #2 20273 #4 MeSH descriptor: [Mild Cognitive Impairment] explode all trees 135 #5 MeSH descriptor: [Memory Disorders] explode all trees 914 #6 "mild cognitive impairment" or MCI or "memory disorder*" 1935	91	5

	#7 #4 or #5 or #6 2159 #8 #3 and #7		
PsycINFO	<p>36. PsycINFO; exp PSYCHOTHERAPY/; 179755 results.</p> <p>37. PsycINFO; (psychotherap* OR (psychological adj2 interven*) OR (psychological adj2 therap*)).ti,ab; 95587 results.</p> <p>38. PsycINFO; 36 OR 37; 216087 results.</p> <p>39. PsycINFO; MILD COGNITIVE IMPAIRMENT/; 0 results.</p> <p>40. PsycINFO; "mild cognitive impairment".ti,ab; 5486 results.</p> <p>41. PsycINFO; "memory deficit*".ti,ab; 5428 results.</p> <p>42. PsycINFO; "memory impair*".ti,ab; 6211 results.</p> <p>43. PsycINFO; "memory disorder*".ti,ab; 1179 results.</p> <p>44. PsycINFO; 39 OR 40 OR 25 OR 41 OR 42 OR 43; 17794 results.</p> <p>45. PsycINFO; (dementia OR alzheimer*).ti,ab; 68039 results.</p> <p>46. PsycINFO; DEMENTIA/ OR FRONTAL VARIANT FRONTOTEMPORAL DEMENTIA/ OR FRONTOTEMPORAL DEMENTIA/ OR HIV ASSOCIATED DEMENTIA/ OR MIXED DEPRESSION AND DEMENTIA/ OR MULTIINFARCT DEMENTIA/ OR PICK PRESENILE DEMENTIA/ OR PRESENILE DEMENTIA/ OR SEMANTIC DEMENTIA/ OR SENILE DEMENTIA/; 26664 results.</p> <p>47. PsycINFO; ALZHEIMER DISEASE/; 32822 results.</p> <p>48. PsycINFO; 45 OR 46 OR 47; 69814 results.</p> <p>51. PsycINFO; COGNITIVE IMPAIRMENT/; 23724 results.</p> <p>52. PsycINFO; 44 OR 51; 35419 results.</p> <p>53. PsycINFO; 52 not 48; 23253 results.</p> <p>54. PsycINFO; 38 AND 53; 360 results.</p> <p>55. PsycINFO; CLINICAL TRIALS/ [Limit to: Publication Year 1860-2014]; 8137 results.</p> <p>56. PsycINFO; random*.ti,ab [Limit to: Publication Year 1860-2014]; 135791 results.</p> <p>57. PsycINFO; (doubl* adj3 blind*).ti,ab [Limit to: Publication Year 1860-2014]; 18771 results.</p> <p>58. PsycINFO; (singl* adj3 blind*).ti,ab [Limit to: Publication Year 1860-2014]; 1716</p>	16	0

	<p>results.</p> <p>59. PsycINFO; EXPERIMENTAL DESIGN/ [Limit to: Publication Year 1860-2014]; 9375 results.</p> <p>60. PsycINFO; controlled.ti,ab [Limit to: Publication Year 1860-2014]; 84087 results.</p> <p>61. PsycINFO; (clinical adj3 study).ti,ab [Limit to: Publication Year 1860-2014]; 8229 results.</p> <p>62. PsycINFO; trial.ti,ab [Limit to: Publication Year 1860-2014]; 71361 results.</p> <p>63. PsycINFO; "treatment outcome clinical trial".md [Limit to: Publication Year 1860-2014]; 28342 results.</p> <p>64. PsycINFO; 54 AND 63 [Limit to: Publication Year 1860-2014]; 16 results.</p>		
Embase	<p>4. EMBASE; exp PSYCHOTHERAPY/; 183387 results.</p> <p>5. EMBASE; (psychotherap* OR (psychological adj2 interven*) OR (psychological adj2 therap*)).ti,ab; 50617 results.</p> <p>6. EMBASE; 4 OR 5; 195043 results.</p> <p>7. EMBASE; MILD COGNITIVE IMPAIRMENT/; 10699 results.</p> <p>8. EMBASE; "mild cognitive impairment".ti,ab; 12069 results.</p> <p>9. EMBASE; MEMORY DEFECT/ OR MEMORY DEFICIT/ OR MEMORY DISORDER/ OR MEMORY DISORDERS/ OR MEMORY IMPAIRMENT/; 45603 results.</p> <p>10. EMBASE; "memory deficit*".ti,ab; 8892 results.</p> <p>11. EMBASE; "memory impair*".ti,ab; 10716 results.</p> <p>12. EMBASE; "memory disorder*".ti,ab; 1761 results.</p> <p>13. EMBASE; 7 OR 8 OR 9 OR 10 OR 11 OR 12; 63499 results.</p> <p>14. EMBASE; (dementia OR alzheimer*).ti,ab; 178092 results.</p> <p>15. EMBASE; DEMENTIA/ OR FRONTAL VARIANT FRONTOTEMPORAL DEMENTIA/ OR FRONTOTEMPORAL DEMENTIA/ OR HIV ASSOCIATED DEMENTIA/ OR MIXED DEPRESSION AND DEMENTIA/ OR MULTIINFARCT DEMENTIA/ OR PICK PRESENILE DEMENTIA/ OR PRESENILE DEMENTIA/ OR SEMANTIC DEMENTIA/ OR SENILE DEMENTIA/; 94576 results.</p> <p>16. EMBASE; ALZHEIMER DISEASE/; 127752 results.</p>	378	0

	<p>17. EMBASE; 14 OR 15 OR 16; 221448 results.</p> <p>18. EMBASE; 13 not 17; 40249 results.</p> <p>19. EMBASE; 6 AND 18; 1263 results.</p> <p>20. EMBASE; CLINICAL TRIAL/; 836216 results.</p> <p>21. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 354249 results.</p> <p>22. EMBASE; RANDOMIZATION/; 63989 results.</p> <p>23. EMBASE; SINGLE BLIND PROCEDURE/; 19104 results.</p> <p>24. EMBASE; DOUBLE BLIND PROCEDURE/; 116296 results.</p> <p>25. EMBASE; CROSSOVER PROCEDURE/; 40719 results.</p> <p>26. EMBASE; "Randomi?ed controlled trial\$.ti,ab; 106011 results.</p> <p>27. EMBASE; rct.ti,ab; 15325 results.</p> <p>28. EMBASE; "Random allocation".ti,ab; 1344 results.</p> <p>29. EMBASE; "Randomly allocated".ti,ab; 21147 results.</p> <p>30. EMBASE; ((allocated adj2 random)).ti,ab; 718 results.</p> <p>31. EMBASE; "Single blind\$.ti,ab; 14918 results.</p> <p>32. EMBASE; "Double blind\$.ti,ab; 144977 results.</p> <p>33. EMBASE; (treble ADJ blind\$.ti,ab; 0 results.</p> <p>34. EMBASE; (triple ADJ blind\$.ti,ab; 405 results.</p> <p>35. EMBASE; Placebo\$.ti,ab; 204644 results.</p> <p>36. EMBASE; PROSPECTIVE STUDY/; 267679 results.</p> <p>37. EMBASE; 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 47 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36; 1399682 results.</p> <p>38. EMBASE; "case report".ti,ab; 268685 results.</p> <p>39. EMBASE; ABSTRACT REPORT/; 71426 results.</p> <p>40. EMBASE; LETTER/; 834798 results.</p> <p>41. EMBASE; 60 OR 38 OR 39 OR 40; 1198013 results.</p> <p>42. EMBASE; 37 not 41; 1361439 results.</p> <p>43. EMBASE; 19 AND 42; 378 results.</p>		
Cinahl	55. CINAHL; exp PSYCHOTHERAPY/; 88439 results.	143	0

	<p>56. CINAHL; (psychotherap* OR (psychological adj2 interven*) OR (psychological adj2 therap*)).ti,ab; 6625 results.</p> <p>57. CINAHL; 55 OR 56; 91070 results.</p> <p>58. CINAHL; MILD COGNITIVE IMPAIRMENT/; 0 results.</p> <p>59. CINAHL; "mild cognitive impairment".ti,ab; 1697 results.</p> <p>60. CINAHL; "memory deficit*".ti,ab; 534 results.</p> <p>61. CINAHL; "memory impair*".ti,ab; 764 results.</p> <p>62. CINAHL; "memory disorder*".ti,ab; 177 results.</p> <p>63. CINAHL; 58 OR 59 OR 25 OR 60 OR 61 OR 62; 4972 results.</p> <p>64. CINAHL; (dementia OR alzheimer*).ti,ab; 28495 results.</p> <p>65. CINAHL; DEMENTIA/ OR FRONTAL VARIANT FRONTOTEMPORAL DEMENTIA/ OR FRONTOTEMPORAL DEMENTIA/ OR HIV ASSOCIATED DEMENTIA/ OR MIXED DEPRESSION AND DEMENTIA/ OR MULTIINFARCT DEMENTIA/ OR PICK PRESENILE DEMENTIA/ OR PRESENILE DEMENTIA/ OR SEMANTIC DEMENTIA/ OR SENILE DEMENTIA/; 20614 results.</p> <p>66. CINAHL; ALZHEIMER DISEASE/; 0 results.</p> <p>67. CINAHL; 64 OR 65 OR 66; 34815 results.</p> <p>68. CINAHL; COGNITIVE IMPAIRMENT/; 0 results.</p> <p>69. CINAHL; 63 OR 68; 4972 results.</p> <p>70. CINAHL; 69 not 67; 2857 results.</p> <p>71. CINAHL; 57 AND 70; 143 results.</p>		
Medline	<p>20. MEDLINE; exp PSYCHOTHERAPY/; 157341 results.</p> <p>21. MEDLINE; (psychotherap* OR (psychological adj2 interven*) OR (psychological adj2 therap*)).ti,ab; 37068 results.</p> <p>22. MEDLINE; 20 OR 21; 168585 results.</p> <p>23. MEDLINE; MILD COGNITIVE IMPAIRMENT/; 2781 results.</p> <p>24. MEDLINE; "mild cognitive impairment".ti,ab; 8760 results.</p> <p>25. MEDLINE; MEMORY DEFECT/ OR MEMORY DEFICIT/ OR MEMORY DISORDER/ OR MEMORY DISORDERS/ OR MEMORY IMPAIRMENT/; 16655 results.</p> <p>26. MEDLINE; "memory deficit*".ti,ab; 7496 results.</p> <p>27. MEDLINE; "memory impair*".ti,ab; 8787 results.</p> <p>28. MEDLINE; "memory disorder*".ti,ab; 1366 results.</p>	91	0

29. MEDLINE; 23 OR 24 OR 25 OR 26 OR 27 OR 28; 35446 results.

30. MEDLINE; (dementia OR alzheimer\*).ti,ab; 145488 results.

31. MEDLINE; DEMENTIA/ OR FRONTAL VARIANT FRONTOTEMPORAL DEMENTIA/ OR FRONTOTEMPORAL DEMENTIA/ OR HIV ASSOCIATED DEMENTIA/ OR MIXED DEPRESSION AND DEMENTIA/ OR MULTIINFARCT DEMENTIA/ OR PICK PRESENILE DEMENTIA/ OR PRESENILE DEMENTIA/ OR SEMANTIC DEMENTIA/ OR SENILE DEMENTIA/; 106437 results.

32. MEDLINE; ALZHEIMER DISEASE/; 72955 results.

33. MEDLINE; 30 OR 31 OR 32; 162868 results.

34. MEDLINE; 29 not 33; 21185 results.

35. MEDLINE; 22 AND 34; 426 results.

36. MEDLINE; RANDOMIZED CONTROLLED TRIALS AS TOPIC/; 100107 results.

37. MEDLINE; RANDOMIZED CONTROLLED TRIAL/; 401553 results.

38. MEDLINE; RANDOM ALLOCATION/; 84222 results.

39. MEDLINE; DOUBLE-BLIND METHOD/; 132775 results.

40. MEDLINE; SINGLE-BLIND METHOD/; 20696 results.

41. MEDLINE; CLINICAL TRIAL/; 501893 results.

42. MEDLINE; "clinical trial, phase i".pt; 15392 results.

43. MEDLINE; "clinical trial, phase ii".pt; 24644 results.

44. MEDLINE; "clinical trial, phase iii".pt; 10102 results.

45. MEDLINE; "clinical trial, phase iv".pt; 1040 results.

46. MEDLINE; "controlled clinical trial".pt; 90822 results.

47. MEDLINE; "randomized controlled trial".pt; 401553 results.

48. MEDLINE; "clinical trial".pt; 501893 results.

49. MEDLINE; exp CLINICAL TRIALS AS TOPIC/; 295658 results.

50. MEDLINE; (single\$ ADJ blind\$).ti,ab; 12463 results.

51. MEDLINE; (doubl\$ ADJ blind\$).ti,ab; 123193 results.

52. MEDLINE; (treb\$ ADJ blind\$).ti,ab; 0 results.

53. MEDLINE; (trip\$ ADJ blind\$).ti,ab; 370 results.

54. MEDLINE; (single\$ ADJ mask\$).ti,ab; 337 results.

55. MEDLINE; (doub\$ ADJ mask\$).ti,ab; 2812 results.

56. MEDLINE; (treb\$ ADJ mask\$).ti,ab; 0 results.

	<p>57. MEDLINE; (trip\$ ADJ mask\$).ti,ab; 43 results.</p> <p>58. MEDLINE; PLACEBOS/; 34060 results.</p> <p>59. MEDLINE; placebo\$.ti,ab; 170227 results.</p> <p>60. MEDLINE; "randomly allocated".ti,ab; 18395 results.</p> <p>61. MEDLINE; (allocated adj2 random\$).ti,ab; 21079 results.</p> <p>62. MEDLINE; 36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43 OR 44 OR 45 OR 46 OR 47 OR 48 OR 49; 998635 results.</p> <p>63. MEDLINE; 50 OR 51 OR 52 OR 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60 OR 61; 251411 results.</p> <p>64. MEDLINE; 62 OR 63; 1048414 results.</p> <p>65. MEDLINE; "case report".ti,ab; 217029 results.</p> <p>66. MEDLINE; LETTER/; 888995 results.</p> <p>67. MEDLINE; HISTORICAL ARTICLE/; 313126 results.</p> <p>68. MEDLINE; 65 OR 66 OR 67; 1406900 results.</p> <p>69. MEDLINE; 64 not 68; 1019657 results.</p> <p>70. MEDLINE; 35 AND 69; 91 results.</p>		
<b>Summary</b>	<b>NA</b>	<b>NA</b>	

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