



# Cognitive interventions

## DEMENTIA CARE

This evidence theme on cognitive interventions is a summary of one of the key topics identified by a scoping review of dementia research.

### Key points

- Cognitive training and cognitive stimulation therapy are two cognitive interventions designed to delay the loss of cognitive ability associated with dementia.
- Cognitive stimulation therapy appears to improve overall cognitive function, especially memory, and reduce apathy at least in people in aged care.
- Cognitive training had mixed results in improving cognitive function although the analysis was based on a small number of studies with a small number of participants.

### What are cognitive interventions?

People with dementia experience a gradual decline in cognitive function which can have an impact on their ability to perform daily activities. [1] Researchers have tested a range of cognitive approaches for delaying the loss of cognitive ability associated with dementia. This includes cognitive training and cognitive stimulation. [2]

It is thought that these approaches can help people adapt to cognitive losses or compensate for them. This might then lead to improvements in self-care abilities, autonomy, and sense of personhood. [3]

The two types of cognitive interventions serve different purposes: [2]

- Cognitive training uses repeated practice on standardised tasks targeting problem areas such as impaired memory, attention, problem-solving and executive function. [3] Training can be one-to-one or in a group and led by a health professional or trained family carer. [4] It might be computer or paper based.
- Cognitive stimulation therapy is a psychological approach. It aims to stimulate the individual's intellectual and social abilities through activities and discussions, usually in a group setting. [3] Cognitive stimulation overlaps with reality orientation therapy. This form of therapy involves care workers or family members repeating the date, time of day, and location to the person living with dementia to help them connect with their surroundings. [5] This may be best suited to people with mild to moderate dementia.

## Are cognitive interventions effective?

We found six reviews that assessed the effectiveness of cognitive interventions on cognitive function. The most promising interventions appear to be those based on cognitive stimulation. Cognitive stimulation studies showed:

- Improved overall cognitive skills and general memory in people with dementia living in residential care. [6]
- Decreased apathy levels and a small effect on responsive behaviours in people with dementia living in residential care. [6, 7]
- Increased verbal memory, verbal fluency, attention, and problem-solving in carer-led interventions in the home setting. [3]
- Longer-term cognitive stimulation therapy appears to be more effective in improving cognitive function than short-term therapy. [8]
- Reality orientation therapy improves cognitive function but not responsive behaviours and depression. [5]

Findings were inconclusive for cognitive training. A review found cognitive training improved overall cognitive function and memory. [9] Another review with fewer studies and fewer participants did not find any conclusive evidence that cognitive training had an impact on cognitive function. [10]

## Evidence limitations

The reviews on cognitive interventions raised several concerns between them as to the methods used in some of the studies. This reduces the degree of certainty we might have about the benefits of cognitive interventions. These include:

- Involving participants of different ages and at different levels of cognitive functioning.
- Comparing interventions of different types delivered by people with differing levels of training and supervision.

- The variable frequency and length of each intervention.
- High participant dropout rates. [3]

## What can an individual do?

- Consider reading more about cognitive stimulation and cognitive training programs.
- If delivering reality orientation therapy to orient a person to their present situation, it is important to do so sensitively in a non-confrontational way.

## What can the organisation do?

- Consider trialling some group activities in the workplace. They do not appear to have any adverse effects and some people may enjoy them.
- Find out more about cognitive stimulation therapy, training requirements, and costs involved at the [International Cognitive Stimulation Therapy Centre, UK](#).

## References

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Cite as: ARIIA Knowledge & Implementation Hub. Cognitive interventions : Dementia care. Evidence Theme. Adelaide, SA: ARIIA; 2022 [updated 2023 Jul].

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