

MODEM

modelling outcome and cost impacts
of interventions for dementia

Cognitive Stimulation Therapy

Cognitive skills are the skills the brain uses to think, learn, remember, problem solve and communicate. There are a number of approaches (we call them interventions) to help people with dementia improve their memory and thinking skills and to cope with memory loss, one of these is Cognitive Stimulation Therapy (CST). CST has been developed by reviewing the best available research on approaches to improve cognitive skills for people with dementia. There is a training manual and DVD with information on how the therapy sessions should be carried out.

Key points:

- CST helps the memory and thinking (cognitive) skills of people with mild to moderate dementia
- people with dementia who took part in CST said that there was an improvement in the quality of their daily life
- CST offers value for money (is cost effective)
- National Institute for Health and Care Excellence (NICE) and Social Care Institute for Excellence (SCIE) guidance (2006) recommends that people with mild to moderate dementia should be given the opportunity to take part in a CST programme.

What is Cognitive Stimulation Therapy (CST)?

Cognitive Stimulation Therapy involves 14 sessions of structured 45 minute group therapy sessions. The sessions run over 7 weeks and each one covers a different topic. To make sure that there is continuity between the sessions they include some activities which are the same such as the warm-up activity, a song and a 'reality orientation board' which has information on the group, details

including date, time, place, weather.

Members give their group a name and sessions cover a range of activities to stimulate thinking, memory and to connect with others such as by:

- discussing current news stories
- listening to music or singing
- playing word games
- doing a practical activity such as baking which involves measuring ingredients and following a recipe.

The sessions are intended for people with mild to moderate dementia. They are designed to be relaxed, fun and to create opportunities for people to learn, express their views and work with others in a sociable setting.

A training manual and DVD (3) has been developed with guidance on how to plan and run the sessions and different ways to check progress. This has been translated and adapted for other countries. (4)

There is a longer version of CST called 'maintenance CST' (MCST) and this is covered [in a separate summary](#)

Why is Cognitive Stimulation Therapy important for people with dementia?

Many people with dementia want to find ways improve their memory and thinking skills and cope with memory loss. While there are some drugs that help people in some stages of Alzheimer's disease, they are not suitable for everybody and only have a limited effect.

CST is important because, as well as stimulating the mind, the group sessions offer an opportunity to share experiences and talk with other people with dementia in a relaxed and supportive environment. Being part of the group helps to their build self esteem so they feel better about themselves and more confident to join in conversations and activities. (12)

Does Cognitive Stimulation Therapy (CST) work?

Improved cognitive skills and quality of life

CST has been found to significantly benefit the memory and thinking skills of most people with mild to moderate dementia. (2,5) People with dementia who took part in the therapy programme said that

there was an improvement in the quality of their daily life. (13) Some carers and relatives said that there was an improvement in language and the willingness of people with dementia to join in conversations. (12)

These findings are based on two studies, in the first one, a [randomised controlled trial](#) (RCT) (2) the people taking part were put into two groups by a computer. The first group took part in CST in addition to being given their normal care. The second group were given their normal care. In this trial most of the people with dementia were living in care homes. Its findings were confirmed by a second study (5) where half of the people were living in their own home and half in care homes. The first trial (2) found that CST worked as well as drugs commonly prescribed for mild to moderate Alzheimer's disease (usually donepezil) and the second study (5) that CST had benefits for people in addition to the benefits from taking the medication.

Smaller pilot studies of adapted versions of CST in Chile and Japan have also reported benefits in memory and thinking skills and quality of life. (6, 7).

These findings are supported in the [Cochrane review on cognitive stimulation](#) that was carried out in 2012. (1)

Is Cognitive Stimulation Therapy (CST) cost-effective?

Research has shown that CST offers value for money (we call this cost effective). It is not an expensive programme and it has significant benefits to the thinking and memory skills of the people who take part in it.

A study, based on the first trial, looked into whether CST is cost-effective. (8) The health and social care costs of those taking part in CST were slightly higher than the costs of the group having their normal care. The additional cost was £20 per person over 8 weeks, which included the costs of CST itself.

Researchers compared this cost to the improvement CST made to the thinking, memory and quality of life of people with dementia. To measure the benefit they used [questionnaires](#) commonly used to assess the progression of dementia. The cost of achieving a one point improvement in thinking and memory, using a thirty point scale called the [mini-mental state examination \(MMSE\)](#), was £90.

The cost of achieving one point improvement in quality of life (using a thirteen point scale called QoI-AD) was £27. The researchers concluded that CST is cost effective.

The cost of CST for the NHS (at 2016 prices) In the trial CST cost, on average, £241.90 per person over 8 weeks (£30.49 a week). In the trial CST was delivered by researchers, whereas in practice it is usually delivered by trained care staff, which would reduce the cost. However it is not known if this would make any difference to the benefits of CST.

Further information

England

The NICE-SCIE guidelines published in 2006 (9) recommend that people with mild to moderate dementia should have the opportunity to take part in a group CST programme.

CST is now offered in some areas of England through the NHS, often in memory clinics. (10) Your GP will be able to provide you with more information on memory clinics in your area.

Some care homes also provide CST and in a recent study networking and offering support to care homes was found to be effective in increasing the number interested in the programme. (11)

The team who developed CST have [a website](#) with:

- information on CST
- examples of where it is being offered in England
- details of the cost of the manual and DVD and where they can be purchased
- dates for training courses

International

The international CST centre has information on adapted versions of CST in over 24 countries along with dates of training events and conferences.

<http://www.ucl.ac.uk/international-cognitive-stimulation-therapy>

Resources

Reviews, reports and guidance:

[Cochrane Review \(2012\): Can cognitive stimulation benefit people with dementia?](#)

[Cognitive Stimulation Therapy \(CST\) website - http://www.cstdementia.com](http://www.cstdementia.com)

Organisations:

Find out more about organisations that have information or offer support to people with dementia and their families - <http://toolkit.modem-dementia.org.uk/further-support-and-information/>.

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The Evidence Table Key

Does it work?

- ✓ Worked well
- ✓= Worked well in some studies and made no difference in others
- ✓=X Mixed results it worked well in some studies, made no difference in others and some found negative impacts
- = Made no difference
- =X Made no difference in some studies and others found negative impacts
- X Negative impact

Is it cost effective?

- ✓ It was cost effective
- ✓X It was found to be cost effective in some studies and not in others
- X It was not cost effective

What is the strength of evidence?

This rating will depend on a range of factors such as the type of research for example if it was a Randomised Controlled Trial (RCT) and the number of people who participated in the study.

- ✓✓ High Quality
- ✓✓ Moderate quality
- ✓ Low quality

Overall Findings for CST

Does it work for the person with Dementia?	Does it work for family and carers?	Is it cost-effective?	Strength of evidence	Implemented in the UK?
Cognition ✓		Cognition ✓	✓✓✓	✓
Quality of Life ✓		Quality of Life ✓		

Findings of individual studies

Study	Does it work for the person with Dementia?	Does it work for family and carers?	Is it cost-effective?	Strength of evidence
<p>Spector et al, 2003</p> <p>RCT, 201 participants, UK</p>	<p>Cognition ✓</p> <p>Quality of Life ✓</p> <p>Communication =</p> <p>Behaviour =</p> <p>Depression =</p> <p>Anxiety =</p>			✓✓✓

Findings of Individual Studies (continued)

Study	Does it work for the person with Dementia?	Does it work for family and carers?	Is it cost-effective?	Strength of evidence
<p>Knapp et al, 2006</p> <p>Relates to Spector, 2003</p>			<p>Cognition ✓</p> <p>Quality of Life ✓</p>	✓✓✓
<p>Aguirre et al, 2012</p> <p>Before and after study, 272 participants, UK</p>	<p>Cognition ✓</p> <p>Quality of Life ✓=</p>			✓✓
<p>Miranda Castillo et al 2013</p> <p>Pilot study, 22 participants, Chile</p>	<p>Cognition ✓</p> <p>Quality of Life ✓</p>			✓✓
<p>Yamanaka et al 2013</p> <p>Before and after study, 272 participants, UK</p>	<p>Cognition ✓</p> <p>Quality of Life ✓=</p>			✓✓

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