

ESSENCE SUMMARY 6

Cognitive stimulation therapy: economic evidence

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BACKGROUND

Currently, 850,000 individuals live with dementia in the UK. Of this population, around 400,000 are unknown to the health and social care system. Even though dementia is among the leading causes of mortality in high-income countries, such as England, no cure exists. Alongside medication, therapeutic interventions enable people living with dementia to better cope with memory loss, which

can improve their quality of life and possibly delay disease progression. Cognitive stimulation therapy is the most researched intervention for people living with dementia and has consistently shown promising results. In fact, recent guidelines from the National Institute for Health and Care Excellence (NICE) recommend the scaling-up of cognitive stimulation therapy.

KEY POINTS

- Cognitive stimulation therapy (CST) helps memory and cognition of people living with dementia. It involves structured group therapy sessions with themed activities. Those are typically provided over 14 sessions in seven weeks.
- Maintenance CST involves 24 additional sessions after the initial seven weeks that follow the same principles as regular cognitive stimulation therapy sessions.
- People using CST are likely to experience improvements in memory, cognition, and overall quality of life (although improvements in quality of life are less easy to establish).
- Both (standard) CST and maintenance CST for people with mild-to-moderate dementia can be cost-effective; this is particular so when offered in combination with dementia medication.
- Whilst provision of CST is recommended by NICE, and rolled out more widely, current provision remains patchy.

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CONTEXT

The Prime Minister's Challenge on Dementia 2020 (1) set out a strategy for improving access to diagnosis, assessment and support for people living with dementia, such as cognitive stimulation therapy (CST). The National Institute for Health and Care Excellence (NICE) and Social Care Institute for Excellence guidelines (2) recommend CST for people with mild-to-moderate dementia. Cognitive stimulation therapy is seen as part of the

solution to address this challenge. However, overall provision is still patchy, and it is not well known how many people living dementia are offered CST.

This case summary presents the economic evidence from two randomised controlled trials and an economic modelling study carried out by NICE on CST and maintenance CST.

WHAT IS COGNITIVE STIMULATION THERAPY?

CST involves 14 sessions, twice a week over seven weeks. It typically consists of structured 45-minute group therapy sessions involving themed activities. Members give their group a name, and each session has the same structure to ensure continuity. For example, sessions typically include a warm-up activity, a song and a 'reality orientation board' at the beginning of every session. This board has information on the group and details including date, time, place and weather. 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 (e.g. baking)

The sessions 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 have been developed with guidance on how to plan and run the sessions and different ways to check progress (3). The manual has been translated and adapted for a number of other cultures and countries (4).

There is a maintenance programme of CST that can be followed after the initial seven weeks of the cognitive stimulation programme. This is referred to as maintenance CST, which involves an additional 24 weekly sessions that follow the same structure and principles as the cognitive stimulation programme.

IS CST EFFECTIVE?

CST can improve the memory and thinking skills of people with mild-to-moderate dementia and possibly increase their quality of life (6–8). Some carers and relatives of people living with dementia report that people living with dementia show improvements in language and the willingness to join in conversations (9).

A randomised control trial (RCT) evaluated CST (6) for people living with dementia in care homes. The study (5) found that CST worked as well as

standard anti-dementia medication. Another randomised control trial (7) in which half of the people living with dementia were in the community and the other half in care homes, found that CST had benefits for people in addition to those from the anti-dementia medication they were taking.

Maintenance CST has also been evaluated in randomized controlled trial. All people in the study had already participated in the original 14 sessions of CST, and were now participating in the

additional 24 sessions. This study showed that maintenance CST helped improve the quality of life of participants. It also showed that maintenance CST improves cognition for people on dementia medication. However, for those not

on medication there were no additional improvements in cognition over and above the improvements already made during the original 14 sessions of CST.

WHAT DO PEOPLE SAY ABOUT COGNITIVE STIMULATION THERAPY?

When asked for their views on the cognitive stimulation programme (8), people living with dementia who took part in the group sessions thought:

- ‘First thing it was fun, because nobody, well it was serious but it was enjoyable, yes it was enjoyable... There was an awful lot of laughing.’
- ‘It’s made me a bit more confident, you know at the beginning I was a bit hesitant to say much, well you just think well if I’ve got something to say then I’ll say.’

- ‘Yes you get other people’s point of view. If you are by yourself at home all the time you haven’t got anyone to discuss anything with. Well its better than stagnating at home saying nothing to anyone all day isn’t it.’

People living with dementia also reported that improvements in concentration and memory. They also felt that the action of talking in the group helped them to remember. One participant claimed:

‘It always makes a change when you have to concentrate on something it’s more helpful for your memory. ... I think it makes you concentrate more in everything you’re doing really.’

IS CST COST-EFFECTIVE?

An economic evaluation of CST (10) (carried out alongside the previously mentioned randomised control trial (6)) found that there was a high probability that CST is cost-effective (10). Whilst health and social care costs for people who received CST were slightly higher than for the usual care group (about £20 (10)), improvements in cognition and quality of life were large enough to suggest that the intervention was good value of money: The cost of achieving a 1-point difference in cognition (measured by Mini-Mental State Examination) was £90, and the cost of achieving a 1-point difference in quality of life (measured by the Quality of Life in Alzheimer’s Disease) was £27 (both costs inflated to today’s prices). The cost of providing CST averaged £238 per individual over the 7-week period (£30 per week).

NICE conducted – as part of their recent guideline for dementia interventions – an economic analysis

of CST using modelling techniques (1). They concluded that the intervention had a 50% to 70% probability of being cost-effective: CST achieved a benefit of 0.033 quality-adjusted life years compared to standard care, at an additional cost of £653. The resulting cost-effectiveness ratio was just under £20,000 per QALY – so this means at the lower end of the cost per QALY thresholds that NICE typically applies (which ranges from £20,000–£30,000). The modelling was based on outcomes data from their own meta-analysis of different randomised control trial studies, and their cost data were based on data from an economic evaluation (9). In their study they assumed a cost of providing CST of £653 per individual, which is much above the one used the single economic evaluation.

There is also economic evidence on the maintenance CST. An economic evaluation

(carried out alongside the above mentioned randomized control trial) (11) found maintenance CST was likely to be cost-effective when looking at self-rated quality of life as the main outcome. In addition, it was likely to be cost-effective for those on dementia medication when cognition was the main outcome. The combination of anti-dementia medication and maintenance CST was more cost-effective than medication alone. This was according to number of indicators, including cost per QALY. In terms of change in health and social care use and costs, those were slightly lower for

the maintenance CST group (about £134 over 6 months) compared to the usual care group. However, the difference was not statistically significant. The cost of maintenance CST averaged £634 per individual over the 6-month period (£24 per week).

In summary, both CST and maintenance CST are likely to be cost-effective for people with mild-to-moderate dementia; this is particularly so if those are offered in combination with dementia medication.

WHAT IS THE NATURE OF EVIDENCE ON CST?

There are a number of challenges to evaluate interventions for this population, which need to be taken into account when interpreting findings. For example, it is not easy to develop outcome measures that can be completed by people living with dementia or their carers, and that produce reliable results. Partly in an attempt to address this challenge, studies often use a wide range of outcome measures, which can make it difficult to compare findings between studies, or to come to final conclusions about whether an intervention is effective or cost-effective.

There have been also challenges in understanding how differences in outcomes measured with clinical scales translate into meaningful changes for people living with dementia as this is likely to strongly vary between individuals. In addition, the nature of dementia makes measuring quality of life for people living with dementia difficult. All of those challenges suggest that it is important to use some caution in interpreting findings.

HOW IS CST IMPLEMENTED?

The importance of addressing the dementia challenge in practice is well recognised. At the 2013 G8 Dementia Summit (14) health and science ministers called for “greater innovation to improve the quality of life for people living with dementia and their carers while reducing emotional and financial burden.” Likewise, the Prime Minister’s Challenge on Dementia 2020 (15) set out a strategy for improving access to diagnosis, assessment and support for people living with dementia, such as CST.

CST is seen as part of the solution to address this challenge. Recently, there has been a large scaling up of CST in memory clinics – 80% of UK memory services currently offer CST (12). In addition,

around 2-3% of care homes currently offer the intervention. A small number of day and community centres offer CST as well. However, overall provision is still patchy, and it is not well known how many people living dementia are offered the intervention.

In practice, CST is often implemented as part of routine activities, rather than a full course programme. As such, costs of providing CST are most likely lower than those estimated in cost-effectiveness studies. A less rigid implementation of CST might also lead to less strong effects on outcomes. However, low-intensity interventions are more likely to be cost-effective than more costly, high-intensity interventions (1).

OTHER INFORMATION

The team who developed cognitive stimulation therapy in England have links to a selection of NHS Trusts offering the programme on their website (13).

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