Can training improve memory, thinking abilities in older adults with cognitive impairment?

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Cognition is the ability to think and make decisions. Medication-free treatments that maintain cognitive health as we age are attracting the attention of medical experts. Maintaining the ability to think clearly and make decisions is crucial to older adults' well-being and vitality.

Mild cognitive impairment (MCI) is a condition that affects people who are in the early stages of dementia or Alzheimer's disease. People with MCI may have mild memory loss or other difficulties completing tasks that involve cognitive abilities. MCI may eventually develop into dementia or Alzheimer's disease. Depression and anxiety also can accompany MCI. Having these conditions can increase the risk of mental decline as people age.

A new, first-of-its-kind study was published in the *Journal of the American Geriatrics Society* by scientists from research centers in Montreal and Quebec City, Canada. They designed a study to learn whether cognitive training, a medication-free treatment, could improve MCI. Studies show that activities that stimulate your brain, such as cognitive training, can protect against a decline in your mental abilities. Even older adults who have MCI can still learn and use new mental skills.

For their study, researchers recruited 145 older adults around the age of 72 from Canadian memory clinics. The participants had been diagnosed
with MCI, and were assigned to one of three groups. Each group included four or five participants, and met for eight weekly sessions for 120 minutes.

The three groups were:

- Cognitive training group. Members of this group participated in the MEMO program (MEMO stands for a French phrase that translates to "training method for optimal memory"). They received special training to improve their memory and attention span.
- Psycho-social group. Participants in this group were encouraged to improve their general well-being. They learned to focus on the positive aspects of their lives and find ways to increase positive situations.
- Control group. Participants had no contact with researchers and didn't follow a program.

During the time the training sessions took place, 128 of the participants completed the project. After six months, 104 completed all the sessions they were assigned.

People in the MEMO group increased their memory scores by 35 to 40 percent, said Sylvie Belleville, PhD, a senior author of the study. "Most importantly, they maintained their scores over a six-month period."

What's more, the improvement was the largest for older adults with "delayed recall." This means memory for words measured just 10 minutes after people have studied them. Because delayed memory is one of the earliest signs of Alzheimer's disease, this was a key finding.

Those who participated in the MEMO group said they used the training they learned in their daily lives. The training gave them different ways to
remember things. For example, they learned to use visual images to remember names of new people, and to use associations to remember shopping lists. These lessons allowed them to continue maintaining their memory improvements after the study ended.

The people in the psycho-social group and the control group didn't experience memory benefits or improvement in their mood.


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