

Comparing Five Activities to Improve Quality of Life for Patients with Mild Cognitive Impairment

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What was the research about?

Patients with mild cognitive impairment, or MCI, have problems with memory, language, and thinking. These problems differ from the usual problems caused by aging. Doctors sometimes recommend activities to improve patients' memory and ability to perform daily tasks.

In this study, the research team looked at combinations of five activities and their effect on quality of life for patients with MCI:

- **Training about reminders.** Patients learned to use a combined calendar, to-do list, and journaling tool to help them remember tasks and events.
- **Brain training app.** Patients and partners did activities on tablet computers to improve thinking.
- **Physical exercise.** Patients and their partners took yoga classes from trained instructors. Classes included breathing exercises and meditation.
- **Support groups.** Patients met in groups to talk about how MCI affected their lives. Patients' partners met to talk about caregiving.
- **Health classes.** Patients and their partners attended group classes. Topics included sleep health, nutrition, exercise, and healthy brain aging.

The research team compared five groups of patients with MCI. Each group completed four of the five

activities. For example, one group did all activities except exercise. Another group did all activities except the brain training app.

What were the results?

After one year, patients in the five groups had similar improvement in

- Quality of life
- Confidence in managing MCI
- How well they could do daily activities requiring memory

Compared with all patients, patients who didn't receive health classes reported worse mood. Patients who didn't use brain training apps reported better mood.

Who was in the study?

The study included 272 patients with MCI and their partners. All received care at one of four clinics in Minnesota, Florida, Arizona, and Washington State. The average age was 75, and all patients were white and non-Hispanic. Patients had an average of 16 years of schooling.

What did the research team do?

The research team assigned patients by chance to one of the five groups. Patients did the activities for four hours each day for 10 days over two weeks.

Patients filled out a survey before they started the activities, right after the activities, and again one year later. At the same times, patients' partners filled out a survey on how well patients could do daily activities requiring memory.

Patients and partners of patients with MCI helped design the study.

What were the limits of the study?

Patients in the study were white and well educated. Results may differ for patients of other backgrounds. Because the study didn't include a group of patients

who did not receive activities, the research team can't be sure that the improvements were a result of the activities and not something else.

Future research could continue to examine ways to improve quality of life for patients with MCI.

How can people use the results?

Patients with MCI, their partners, and doctors can use the results when considering how to improve patient quality of life.

To learn more about this project, visit www.pcori.org/Smith012.