

Games, puzzles and reading can slow cognitive decline in the elderly—even in those with mild cognitive impairment

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The aging process can lead to diminished cognitive functioning for older adults. In addition, about 10 percent of people previously diagnosed with mild cognitive impairment develop Alzheimer's disease or other forms of dementia every year.

Although a few studies have found that activities such as putting together jigsaw puzzles can protect against <u>cognitive aging</u>, the benefits of these activities in preventing or postponing cognitive decline are still largely unknown.

Now, findings from a new <u>study</u> from the Texas A&M University School of Public Health suggest that older people with mild cognitive impairment who engage in high levels of activities such as word games and hobbies have better memory, working memory, attention and processing speed than those who do not.

"Today, nearly <u>six million people</u> in the United States have dementia, and this number is projected to grow to about 14 million by 2060—with <u>minority populations</u> affected the most," said Dr. Junhyoung "Paul" Kim, an associate professor of health behavior at Texas A&M. "We sought to help fill the gap in our understanding of <u>cognitive decline</u>."

For the study, published in the *Journal of Cognitive Enhancement*, Kim, along with researchers from the University of Southern Mississippi and Indiana University, analyzed data on 5,932 people who were at least 50 years old in 2012, had mild cognitive impairment and were part of the Health and Retirement Study (HRS) from 2012 to 2020.

The HRS collects data through self-reported paper-and-pencil surveys and in-depth phone interviews. For this study, the researchers analyzed the answers to seven questions about how often participants engaged in cognitively stimulating activities such as reading, game playing and hobbies. Next, they divided the participation levels in the categories of



low, mid and high based on criteria used in previous studies and conducted repeated-measured multivariate analysis of covariance.

"In short, the high-level participation group consistently exhibited higher cognitive function levels during the study period and maintained a similar level of cognitive functions compared to the other groups," Kim said.

Those in the high-level category had higher levels of memory, working memory, and attention and processing speed than those in the mid- and low-level groups. In addition, those in the mid-level category had higher levels of working memory and attention and processing speed than those in the low-level participation group.

"We also found significant differences in all three cognitive functions between years with a declining slope, but the differences between 2014 and the other years of the data set that were examined were not significant," Kim said.

Kim and the others are hopeful that these findings will lead health care providers to recommend that older people with <u>mild cognitive</u> <u>impairment</u> play games, read or engage in similarly stimulating activities at least three to four times a week.

"In addition, we hope that barriers to doing this, such as inadequate caregiver support and financial constraints, could be overcome through stronger public care services and community support networks," Kim said

More information: Jungjoo Lee et al, A Longitudinal Analysis of the Relationship Between Different Levels of Cognitively Stimulating Leisure Activity and Cognitive Function Among Older Adults with MCI, *Journal of Cognitive Enhancement* (2024). DOI:



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