Socializing may improve older adults' cognitive function in daily life
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Socializing with others is important for mental health and well-being, and it may help improve cognition, as well—especially for older adults, according to new research.

In a study led by Ruixue Zhaoyang, assistant research professor of the Center for Healthy Aging at Penn State, the researchers found that when adults between the ages of 70 and 90 reported more frequent, pleasant social interactions, they also had better cognitive performance on that day and the following two.

Zhaoyang said the findings—recently published in the journal *PLOS ONE*—may have special relevance now due to social distancing mitigation measures throughout the COVID-19 pandemic.

"Our study is one of the first to show that whether you have social interactions on one day can immediately affect your cognitive performance that same day and also on the following days," Zhaoyang said. "The fact that we found that the cognitive benefits of having pleasant social interactions could manifest over such a short time period was a happy surprise and could be a promising area for future intervention studies."

According to the Alzheimer's Association, more than six million Americans are currently living with Alzheimer's disease, and that number is expected to rise to almost 13 million by 2050. Additionally, deaths from Alzheimer's disease and other dementias have risen by 16% during the COVID-19 pandemic.

Zhaoyang said that without reliable drug therapies, it's critical to find ways to help prevent these conditions before they reach the clinical stage.

"Alzheimer's disease and other dementias impose substantial burdens on patients as well as their family and caregivers," Zhaoyang said. "It's important to find modifiable risk factors for cognitive decline before they progress to the clinical stages of Alzheimer's disease. Social isolation later in life is one risk factor for dementia, and also one we have some control over."

The researchers used data collected by smartphones over 16 days on 312 older adults for the study. The participants were prompted five times throughout the day to report how many social interactions they'd had, who they interacted with, and whether it was a positive or negative experience. Digital interactions like talking by phone or texting were counted as well as in-person ones.

In addition, participants completed three mobile cognitive tests after each check-in. One was designed to measure processing speed and attention, one measured spatial working memory, and the last measured intra-item feature memory binding.

The researchers found that when older adults interacted more frequently with people they were close to—especially their friends—they performed
better on these cognitive tests than those who interacted less frequently with close partners.

They also found that when older adults weren't typically experiencing certain types of social contact, they performed better cognitively on days when they had the type of contact they'd been lacking. For example, if a person usually didn't have much contact with family, they experienced a boost in cognition on days they had more than usual contact with their family.

Zhaoyang said that while the study suggests that a lack of socializing can have negative effects on cognition, it also shows an opportunity for future interventions.

"Our findings suggest that the lack of positive social interactions in daily life could be a critical risk factor for declining cognitive function later in life," Zhaoyang said. "Older adults who are relatively more deprived in certain social interaction experiences could potentially benefit the most from interventions that help to 'boost' their usual levels of social interactions in daily life."


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