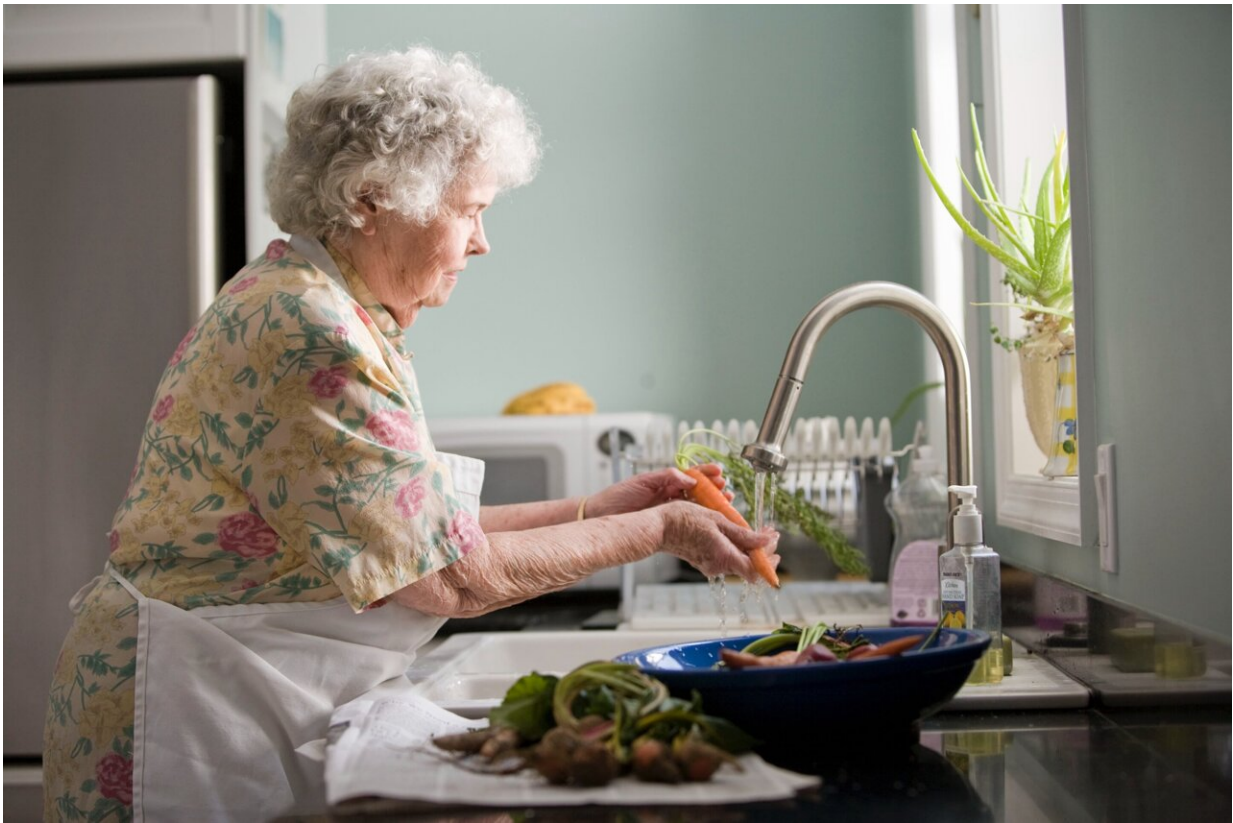


Food insecurity may increase cognitive decline in older adults

February 17 2023



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Older adults living with food insecurity are more likely to experience malnutrition, depression and physical limitations that affect how they live. The Supplemental Nutrition Assistance Program (SNAP) is the

largest federally funded nutrition-assistance program in the United States, and research has shown that SNAP has reduced hunger and food insecurity in the general population.

Little evidence is available, however, on how SNAP may impact brain aging in [older adults](#). To bridge this knowledge gap, Muzi Na, assistant professor of nutritional sciences at Penn State, led a team of researchers who investigated the relationship between [food insecurity](#), SNAP and cognitive decline. They found that food sufficiency and participation in SNAP may help protect against accelerated cognitive decline in older adults.

In a [new article](#) published in *The Journal of Nutrition*, the researchers analyzed a representative sample of 4,578 older adults in the United States using data from the National Health and Aging Trends Study, 2012-20. Participants reported their experiences with food insecurity and were classified as food sufficient or food insufficient. The SNAP status was defined as SNAP participants, SNAP-eligible nonparticipants and SNAP-ineligible nonparticipants. The researchers found that food insecure adults experienced cognitive declines more rapidly than their food secure peers.

The researchers identified different trajectories of cognitive decline using food insufficiency status or SNAP status. Rates of cognitive decline were similar in SNAP participants and SNAP-ineligible nonparticipants, both of which were slower than the rate of SNAP-eligible nonparticipants. The greater cognitive decline rate observed in the food insecure group was equivalent to being 3.8 years older, whereas the greater [cognitive decline](#) rate observed in the SNAP-eligible nonparticipant group was equivalent to being 4.5 years older.

"For an [aging population](#), roughly four years of brain aging can be very significant," Na explained. "These results really point to the importance

of food security for people as they age and the value that SNAP can have in improving people's cognitive health as they age. We need to make sure that people have access to—and encourage them to use—the SNAP program as they age."

Future studies are warranted to investigate the impact of addressing food insecurity and promoting SNAP participation on cognitive health in older adults, said Na.

Nan Dou of Penn State, Monique Brown of University of South Carolina, Lenis Chen-Edinboro of University of North Carolina Wilmington, Loretta Anderson of University of Maryland School of Medicine, and Alexandra Wennberg of Karolinska Institutet in Stockholm all contributed to this research.

More information: Muzi Na et al, Food Insufficiency, Supplemental Nutrition Assistance Program (SNAP) Status, and 9-Year Trajectory of Cognitive Function in Older Adults: The Longitudinal National Health and Aging Trends Study, 2012–2020, *The Journal of Nutrition* (2022). [DOI: 10.1016/j.tjnut.2022.12.012](https://doi.org/10.1016/j.tjnut.2022.12.012)

Provided by Pennsylvania State University

Citation: Food insecurity may increase cognitive decline in older adults (2023, February 17) retrieved 8 April 2023 from <https://medicalxpress.com/news/2023-02-food-insecurity-cognitive-decline-older.html>

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