MIND diet linked with better focus in school-aged children

Researchers Naiman Khan and Shelby Keye from the University of Illinois Urbana-Champaign found that the MIND diet was positively linked with children's performance on a task assessing attentional inhibition.
Credit: L. Brian Stauffer, University of Illinois Urbana-Champaign

A diet originally designed to help ward off cognitive decline in adults might also help improve attention in pre-adolescents, according to a new study. The findings could help inform future dietary interventions aimed at improving cognition in children.

The new study examined two diets: the Healthy Eating Index—2015 (HEI-2015), which is based on the Dietary Guidelines for Americans, and the Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet, which combines the Mediterranean diet with the heart-healthy Dietary Approaches to Stop Hypertension (DASH) diet to create a dietary pattern that focuses on brain health.

"We assessed how adherence to these diets was associated with children's attentional inhibition—the ability to resist distracting stimuli—and found that only the MIND diet was positively linked with children's performance on a task assessing attentional inhibition," said Shelby Keye, Ph.D., who performed the work as a doctoral student in the Department of Kinesiology and Community Health at the University of Illinois Urbana-Champaign and will be an assistant professor there this fall. "This suggests that the MIND diet could have the potential to improve children's cognitive development, which is important for success in school."

Keye will present the findings at NUTRITION 2023, the annual meeting of the American Society for Nutrition held July 22–25 in Boston.

Much like the DASH and Mediterranean diets on which it is based, the MIND diet emphasizes fresh fruit, vegetables, and legumes like beans, lentils, and peas. However, it also includes recommendations for specific foods, such as leafy greens and berries, which promote brain health. Although the MIND diet has been shown to have positive effects in adults, very few studies have been performed in children.

The new research used data collected in a previous cross-sectional study led by Naiman Khan, Ph.D., a professor of Kinesiology and Community Health at the University of Illinois Urbana-Champaign. The study's 85 participants ranged in age from seven to 11 years old and completed a seven-day diet record from which the researchers calculated HEI-2015 and MIND diet scores.

To assess attentional inhibition, participants also completed a task that requires spatial attention and executive control with their reaction time and accuracy recorded. Children with neurological disorders such as ADHD or autism were excluded from the study to reduce confounding factors.

The researchers found that MIND diet scores but not HEI-2015 scores were positively related to study participants' accuracy on the task, meaning that study participants who better adhered to the MIND diet performed better on the task. The researchers caution that although the study shows an association, an intervention study would be necessary to make any causal inferences.
Next, the researchers would like to study the relationship between the MIND diet and attention in younger children, including preschool age and toddlers, to determine if there are any differences based on age and whether a developmental effect is involved.
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