

Dietary Index For Gut Microbiota (DI-GM) And Cognitive Function: NHANES Findings And Validation In A Hong Kong Cohort With Metagenomic Data

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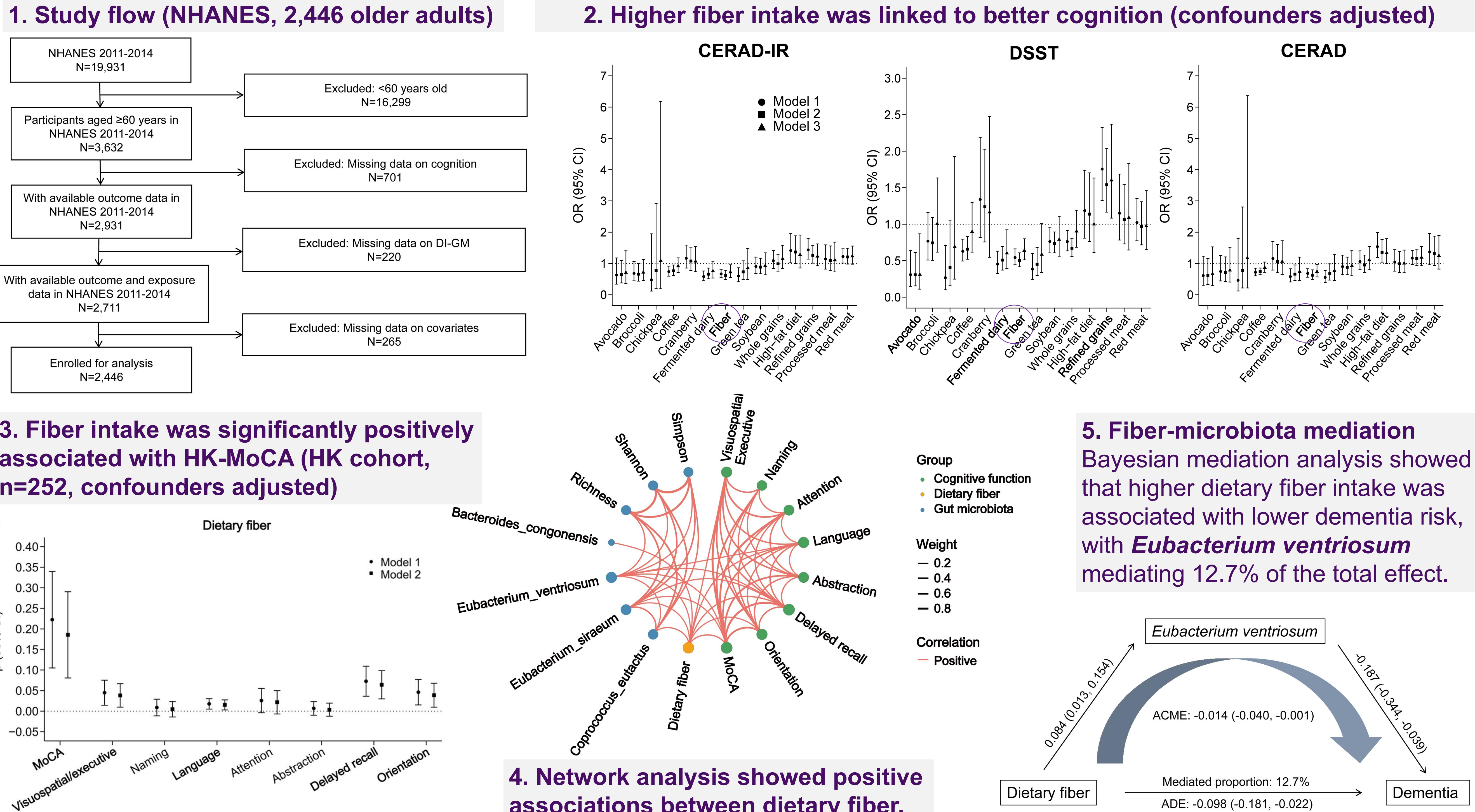
Take-home message: A fiber-rich, gut microbiota-friendly diet may help support cognitive health in older adults

Background and Method

- Background
- Diet-gut microbiota interactions may contribute to cognitive aging through the microbiota-gut-brain axis.
 - DI-GM is a gut microbiota-oriented dietary index reflecting beneficial and unfavorable dietary components.
 - Its association with cognitive function remains understudied, particularly with metagenomic validation.

- Method
- Discovery and validation cohorts: NHANES 2011-2014 and an independent Hong Kong cohort with fecal metagenomic data.
 - Key measures: DI-GM from 24-hour dietary recalls; cognition assessed by CERAD, AFT, DSST, and HK-MoCA.
 - Analyses: Weighted regression, RCS, correlation network, and Bayesian mediation analyses.

Results



Conclusions

- Gut microbiota-friendly dietary patterns may support cognitive health in older adults.
- Dietary fiber may be an important dietary target for maintaining cognition.
- Fermenting gut bacteria may partly explain the link between fiber intake and cognitive health.

Reference

Kase, Bezawit E et al. “The Development and Evaluation of a Literature-Based Dietary Index for Gut Microbiota.” Nutrients vol. 16,7 1045. 3 Apr. 2024, doi:10.3390/nu16071045

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