World-Wide FINGERS (WW-FINGERS)
– A global approach to risk reduction and prevention of dementia

The World-Wide FINGERS (WW-FINGERS) network of multidomain clinical trials (RCTs) for dementia prevention coordinates research that builds on the groundbreaking FINGER trial, which has shown that a multidomain intervention can prevent cognitive decline in older adults.

Initiated by Professor Miia Kivipelto, WW-FINGERS connects research teams globally, to adapt, test, and develop the FINGER model in different settings, and define effective dementia prevention strategies.

The network comprises 74 countries, including several low- and middle-income ones. WW-FINGERS is scientifically coordinated by the FINGERS Brain Health Institute's WW-FINGERS Global Scientific Coordinating Center, which supports research teams world-wide in the development, execution, and data analysis of clinical trials.

WW-FINGERS research around the world

Development of the FINGER model includes trials with participants across the continuum of Alzheimer's disease (AD) and dementia risk; from asymptomatic at-risk to mild cognitive impairment/prodromal AD.

Additional elements for the multidomain model are tested, with a new framework for dementia and AD prevention RCTs combining pharmacological and non-pharmacological interventions.

Digital solutions and tools are also being tested to support intervention delivery, monitoring adherence and efficacy, and facilitate scalability.

Achieving precision prevention in Alzheimer's disease and dementia via data sharing

- Prospective data harmonization, secure data sharing, and joint data analysis are crucial for the WW-FINGERS network to collaborate and generate evidence-based knowledge for dementia prevention, within the framework of precision medicine.
- The FINGERS Brain Health Institute (FBHI) works with the Alzheimer's Disease Data Initiative to enable data sharing and joint data analysis for WW-FINGERS trials, based on the AD Workbench platform.
- The federated database approach supported by the AD Workbench allows research teams to maintain datasets locally, while effortlessly making them available through secure and permissioned data access.

For the establishment of the federated databases for WW-FINGERS, FBHI has received funding from the AD Data Initiative. FBHI collaborates with the AD Data Initiative and the Finnish Institute of Health and Welfare (THL) on this project.

Unique research focused on multidomain lifestyle interventions

- The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) is an RCT with 1,260 participants, age 60-77y, at risk of dementia.
- FINGER tested a 2-year lifestyle-based multidomain intervention (healthy diet, exercise, cognitive training, social stimulation, management of cardio-metabolic risk) versus standard care. Post-intervention follow-ups have been done up to 11 years.
- The FINGER intervention produced cognitive benefits: improvement of 25% of overall cognition, 83% in executive function, 150% in processing speed, 40% in complex memory, and reduced risk of cognitive decline (versus control).
- FINGER had additional health benefits: reduced physical decline, and reduced risk of multimorbidity and cardiovascular diseases. The intervention was cost-effective.
- 28 RCTs have so far been successfully completed within the WW-FINGERS network, and 30 are in planning/ongoing stage (+20,000 participants).
- Implementation studies for the FINGER model are ongoing in different care settings.

To read more about FINGER, WW-FINGERS and FBHI, go to www.fbhi.se

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