

PREVENTION (NONPHARMACOLOGICAL)

A Multidomain Lifestyle Intervention in Dutch Older Adults to Prevent Cognitive Decline (FINGER-NL): from RCT to follow-up study

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Abstract

Background: FINGER-NL aims to investigate the effectiveness of a 2-year multidomain lifestyle intervention to maintain optimal cognitive functioning in Dutch at-risk older adults. Here we provide an update on the progress and follow-up of this study.

Methods: Embedded in the World-Wide FINGERS initiative and as part of the MOCIA research programme, FINGER-NL is a 24-month Dutch multi-center, randomized, controlled, multidomain lifestyle intervention trial among adults at risk for cognitive decline. Inclusion criteria are 60-80 years of age and presence of both modifiable (based on Lifestyle for BRAin health (LIBRA) score) and non-modifiable (positive family history of dementia or self-reported subjective cognitive decline) risk factors. Participants were randomized to either a high-intensity (personalized, supervised hybrid program with group meetings and individual sessions) or a low-intensity (digital information) lifestyle intervention group. Efforts are ongoing to expand and enrich FINGER-NL

Results: Between February 2022 and May 2023, we screened 2057 individuals and randomly assigned 1210 eligible individuals to the high-intensity ($n = 605$) or low-intensity group ($n = 605$). One-year follow-up assessments have been completed and carried out in 544 (90%) participants in the high-intensity group and 505 (83%) in

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the low-intensity group. Two-year follow-up assessments are ongoing, with currently 369 completed assessments in the high-intensity group (and $n = 52$ (12%) participants lost to follow-up) and 358 completed assessments in the low-intensity group (and $n = 92$ (20%) participants lost to follow-up). Using stored biomaterials, blood-based biomarker analyses and measurement of genetic variations are planned in 2025. Funding has been secured for additional follow-up measurements at three and four years after baseline to determine sustained effects on cognitive performance and lifestyle after completion of the intervention. Currently, 456 (74%) participants who completed the intervention consented to participate in the extension study.

Conclusion: FINGER-NL is progressing well. Point of attention is participant adherence, especially in the low-intensity group. There is high interest among participants to continue their participation with additional follow-up measurements after completion of the intervention. Extension of the project and (inter) national (joint) initiatives expand and enrich FINGER-NL, which enables and stimulates data sharing and joint analyses across WW-FINGER studies.