

Replication Of FINGER Results Among U.S. POINTER Participants Meeting FINGER Eligibility Criteria



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TAKEAWAY: The FINGER and U.S. POINTER randomized clinical trials enrolled overlapping but distinct cohorts. Analyzing the subsets of participants who likely meet eligibility criteria for both trials and those who do not replicates findings among intersecting individuals and extends benefits to non-overlapping cohorts.

Background

- The design of the U.S. Study to Protect Brain Health through Lifestyle Intervention to Reduce Risk (U.S. POINTER) randomized clinical trial was based on the successful Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) clinical trial. Both trials were designed to examine the relative impact of multidomain lifestyle interventions on cognitive function however the eligibility criteria and the comparators differed between trials. It is unclear whether the FINGER cognitive benefits have been replicated among the subset of U.S. POINTER participants meeting FINGER eligibility criteria.

Methods

The FINGER eligibility criteria were mapped onto the U.S. POINTER cohort. Differences between those meeting and not meeting FINGER criteria were assessed and the relative benefits of the U. S. POINTER interventions were compared between groups.

Methods

- Study Sample: U.S. POINTER enrolled 2,111 participants across 5 sites. The major eligibility criteria:
 - Age 60-79 years
 - Sedentary lifestyle
 - Suboptimal diet (MIND ≤ 9)
 - Family history of impairment
 - Elevated CVD risk
 - Risk score (race/ethnicity, sex, age)
 - No characteristics expected to limit adherence
- Major eligibility criteria of FINGER:
 - Age 60-77 years
 - CAIDE ≥ 6
 - CERAD Word list memory ≤ 19 and Word list recall $\leq 75\%$
 - MMSE ≤ 26
 - No characteristics expected to limit adherence
- The primary outcome for the U.S. POINTER trial was a composite measure of cognitive function.

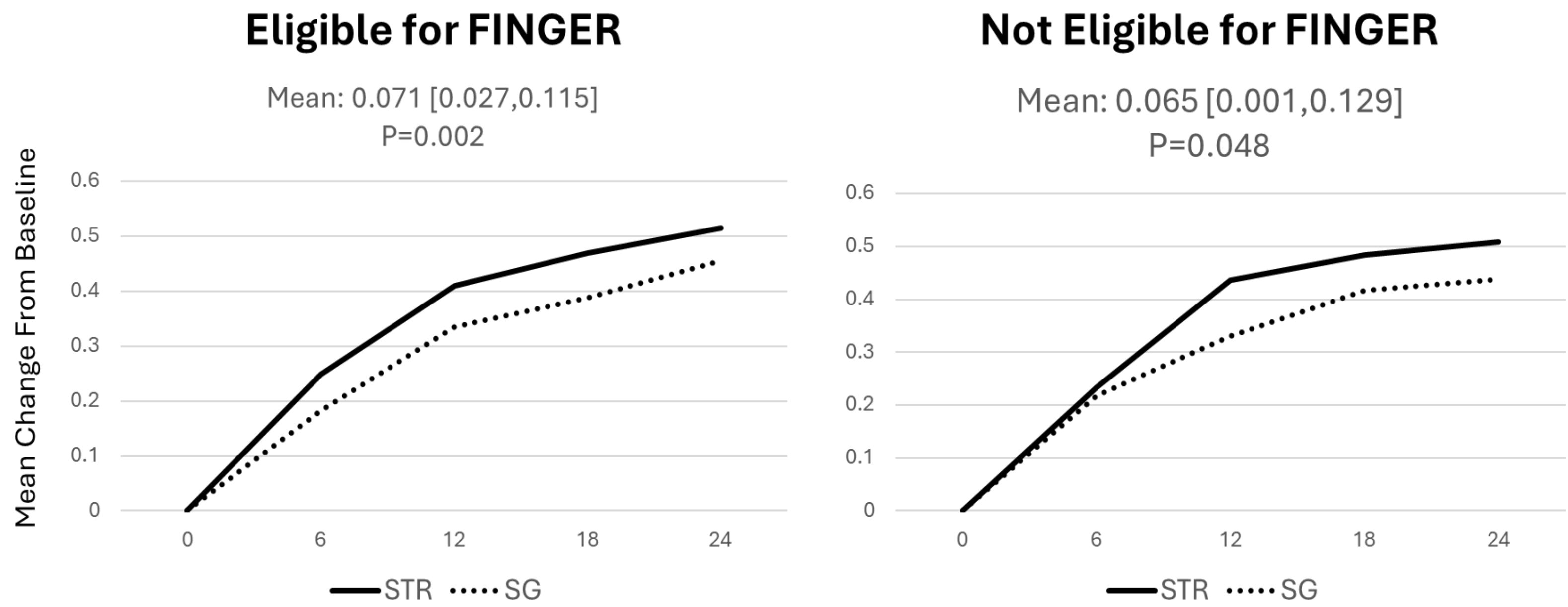
- Statistical Analysis: The relative differences in the cognitive benefits seen for the intensive (Structured) relative to the less intensive (Self-Guided) interventions were assessed using mixed effects models for repeated measures (MMRM).

Results

- N=1424 (67%) of U.S. POINTER participants were likely to meet eligibility criteria for FINGER.
- The major reason for the N=687 (33%) who would likely be excluded was too high of CAIDE scores.

Characteristics at Baseline	FINGER Eligible (N=1424)	Not FINGER Eligible (N=687)
Age, Mean	67.9	68.8
Female, %	60%	87%
Structured Intervention, %	51%	49%
BMI (kg/m ²), Mean	31.6	26.5
HbA1c (%), Mean	5.9	5.7
LDL (mg/dl), Mean	112	114
SPPB, Mean	11.1	11.2
MIND diet score, Mean	7.0	7.2
Apo-E, %	31%	32%
Composite Cognition, Mean	-0.05	0.11

Composite Cognitive Function By Intervention Assignment
Mixed Effects Models Controlling for Site and Age



Conclusions

- Multidomain lifestyle interventions can preserve cognitive function in different at-risk populations.
- Inclusion criteria in both trials appear to select individuals who benefit from lifestyle interventions, even though they only partially overlap.
- U.S. POINTER replicates the benefits seen in FINGER and extends these to individuals with lower CAIDE scores and to United States cohorts.
- Exploring the intersections among cohorts from Word Wide FINGERS trials informs the generalizability and comparability of results.

References

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- Baker LD, et al. *JAMA.* 2025;334(8):681-691.