

Hearing intervention versus health education control to reduce cognitive decline in older adults with hearing loss in the USA (ACHIEVE): a multicentre, randomised, controlled trial

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1 The study

Participants: Adults aged 70–84 years with untreated hearing loss and without substantial cognitive impairment recruited from two study populations: (1) older adults participating in the ARIC observational study of cardiovascular health (n=238), and (2) healthy de novo community volunteers (n=739)

Intervention: Hearing intervention (audiological counselling and provision of hearing aids)

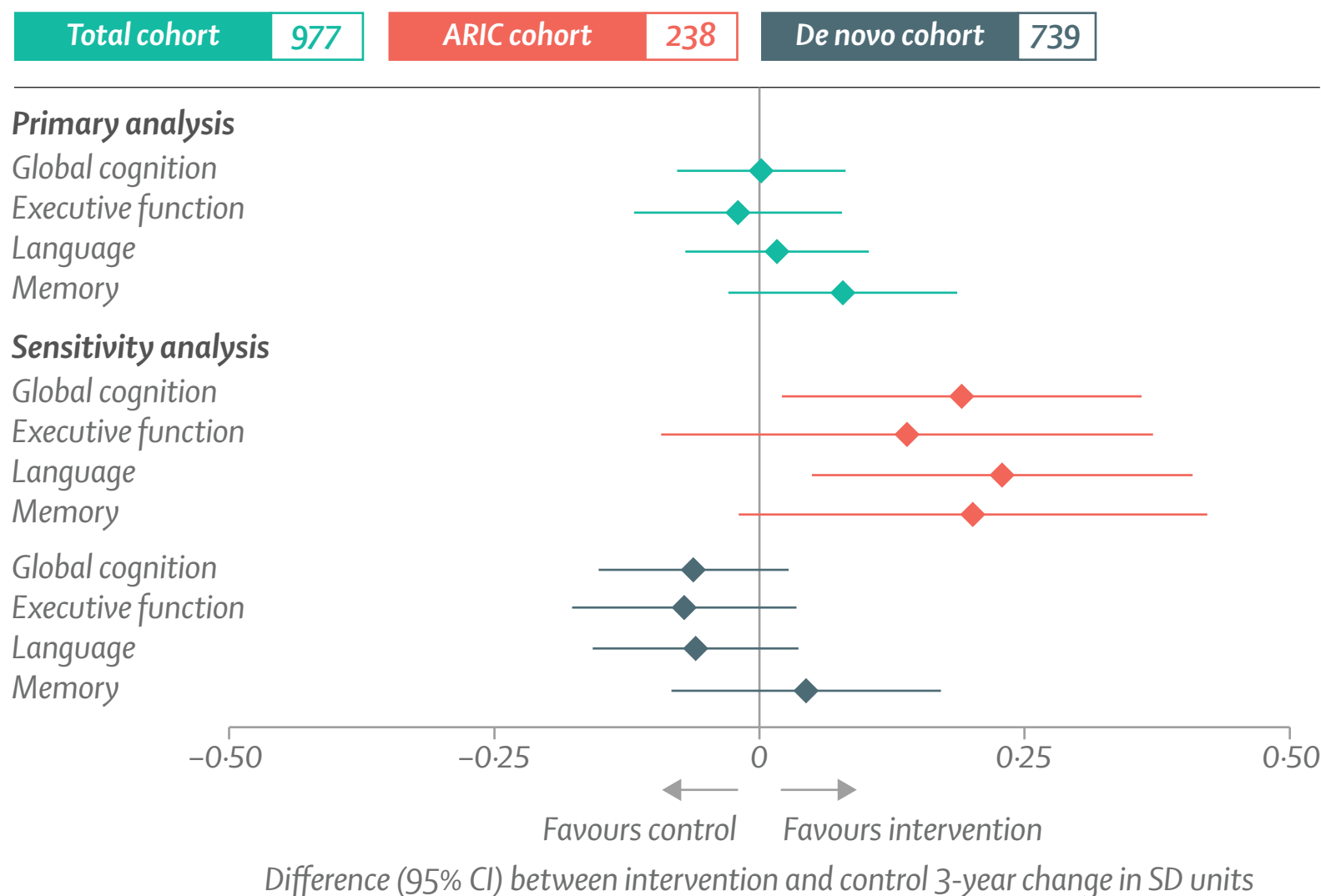
Comparator: Health education control

Primary outcome: 3-year change in a global cognition standardised factor score from a comprehensive neurocognitive battery

Key limitation: Understanding the possible effects of hearing intervention on cognition in populations at decreased risk for cognitive decline will require longer-term follow-up of the de novo cohort beyond 3 years (currently underway)

2 Findings

In older adults at increased risk for cognitive decline, hearing intervention slowed down loss of thinking and memory abilities by 48% over 3 years.



In the primary analysis combining the ARIC and de novo cohorts, 3-year cognitive change (in SD units) was not significantly different between the hearing intervention and control. However, a prespecified sensitivity analysis showed that in the ARIC cohort, which was at increased risk for cognitive decline, the hearing intervention was associated with a 48% reduction in 3-year cognitive change compared with control.

Sample size: Participants randomly assigned 1:1 to hearing intervention (n=490) or health education control (n=487)

3 Research in context

Before this study

The ability of hearing intervention to potentially reduce cognitive decline in older adults is unknown

Added value

Hearing intervention reduced 3-year cognitive change in the cohort of older adults at increased risk for cognitive decline

Implications

Results suggest that hearing intervention can reduce cognitive change within 3 years when implemented in older age for adults at increased risk for cognitive decline