ALZHEIMER'S ASSOCIATION®

STUDY RESULTS

Initial Findings from the U.S. Study to Protect Brain Health Through Lifestyle Intervention to Reduce Risk

1

OUR TIME TOGETHER

1. What we set out to learn
2. What we did
3. What we found
4. What this means
5. Where we go from here

U.S.POINTER
ALZHEIMER'S ASSOCIATION

2

1 What we set out to learn

The Growing Challenge
Dementia rates are rising, and prevention is more important than ever.

Early Findings
Studies targeting individual lifestyle factors have shown promising results.

Lifestyle and Risk
Certain lifestyle factors, like poor nutrition and lack of physical activity, are linked to higher risk of cognitive decline.

A New Direction
Research has shifted to focus on whether combining multiple lifestyle changes can better protect brain health.

U.S.POINTER ALZHEIMER'S ASSOCIATION

3

1 What we set out to learn

Following the Evidence:

01

Results Released: 2015

FINGER
The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) showed that a multidomain lifestyle intervention improved cognitive function

U.S.POINTER ALZHEIMER'S ASSOCIATION

4

1 What we set out to learn

Following the Evidence:

CALL TO ACTION

The FINGER results prompted the Alzheimer's Association to raise a key question: Can these lifestyle strategies protect brain health in older adults in other countries and settings?

Heather M. Snyder, PhD
Alzheimer's Association Senior Vice President, Medical & Scientific Relations

Maria C. Carrillo, PhD
Alzheimer's Association Chief Science Officer & Medical Affairs Lead

01 02

FINGER

The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) showed that a multidomain lifestyle intervention improved cognitive function

U.S.POINTER ALZHEIMER'S ASSOCIATION

5

1 What we set out to learn

Following the Evidence:

CALL TO ACTION

The FINGER results prompted the Alzheimer's Association to raise a key question: Can these lifestyle strategies protect brain health in older adults in other countries and settings ?

01 02 03

FINGER

The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) showed that a multidomain lifestyle intervention improved cognitive function

U.S. POINTER

U.S. POINTER adapted and expanded the FINGER approach for the United States—where older adults live, eat, and receive care in many different ways

U.S.POINTER ALZHEIMER'S ASSOCIATION

6

1 What we set out to learn

THE POINT OF POINTER

To understand whether lifestyle interventions can protect brain health and reduce risk of dementia in a large, diverse population of older adults in the United States—and whether varying levels of structure and support lead to different outcomes

U.S.POINTER
ALZHEIMER'S ASSOCIATION

7

2 What we did

U.S. POINTER LOCATIONS

5 Sites Across the United States

U.S.POINTER
ALZHEIMER'S ASSOCIATION

8

2 What we did

PARTICIPANT QUALIFICATIONS

At Risk for Cognitive Decline, but Without Dementia

- 60 - 79 years old
- \+
- Does Not Exercise Regularly
- \+
- Suboptimal Diet (MIND Diet Score)

+ two or more of the following:

- 70 + years old
- African American / Black or Native American Race; Hispanic Ethnicity
- Family History of Memory Impairment
- Cardiovascular Health Risk

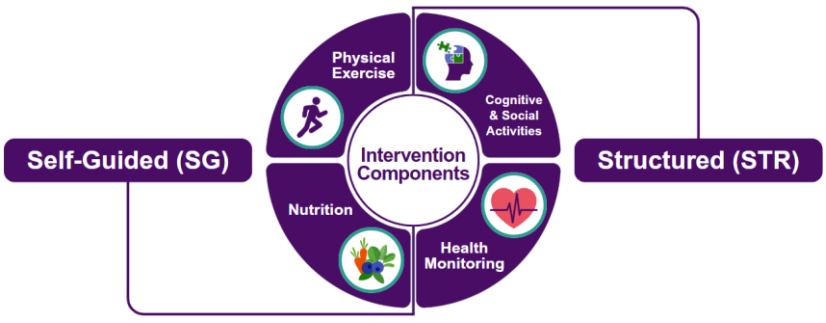
U.S.POINTER
ALZHEIMER'S ASSOCIATION

9

2 What we did

LIFESTYLE INTERVENTIONS

Participants Randomized into 2 Groups



U.S.POINTER
ALZHEIMER'S ASSOCIATION

10

2 What we did

SG 6 facilitated peer team meetings over 2 years with general support from study navigator

Education & General Support

Met with study navigator 3 times per year to receive:

- Healthy lifestyle education
- Tangible tools to facilitate self-guided plans
- General support to encourage physical activity, a healthy diet, and cognitive and social stimulation

Health Monitoring

Blood laboratory results and blood pressure measurements were provided at clinic assessment visits

STR 38 facilitated peer team meetings over 2 years, with education, goal-setting, accountability and support from study interventionist and navigator

Physical Exercise

Aerobic, resistance, and stretching & balance exercise primarily at a community facility

Nutrition

Encouragement to follow the MIND diet, with extra support through telephone contacts with the interventionist

Cognitive and Social Challenge

Home-based computer cognitive training and regular participation in intellectually & socially engaging activities

Guideline-Based Health Coaching

Medical advisor appointments every 6 months for goal-setting, and to review monthly blood pressure measurements and blood laboratory results provided at clinic visits

U.S.POINTER ALZHEIMER'S ASSOCIATION

11

2 What we did

POINTER Rx

Aerobic: 4 days/week, 30-35 min/session
Resistance: 2 days/week, 15-20 min/session
Stretch/Bal: 2 days/week, 10-15 min/session

MIND diet: Score ≥ 9.5

BrainHQ: 3 times/week, 15-20 min/session

Labs: Biannual review

STR 38 facilitated peer team meetings over 2 years, with education, goal-setting, accountability and support from study interventionist and navigator

Physical Exercise

Aerobic, resistance, and stretching & balance exercise primarily at a community facility

Nutrition

Encouragement to follow the MIND diet, with extra support through telephone contacts with the interventionist

Cognitive and Social Challenge

Home-based computer cognitive training and regular participation in intellectually & socially engaging activities

Guideline-Based Health Coaching

Medical advisor appointments every 6 months for goal-setting, and to review monthly blood pressure measurements and blood laboratory results provided at clinic visits

U.S.POINTER ALZHEIMER'S ASSOCIATION

12

2 What we did

PRIMARY OUTCOME

Change in Cognitive Function Over 2 Years

Each group followed the intervention for 2 years, and cognitive function was measured every 6 months using memory and other thinking tests

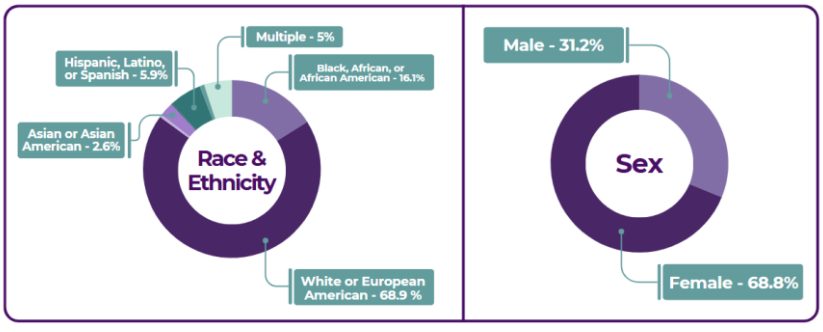
U.S.POINTER ALZHEIMER'S ASSOCIATION

13

2 What we did

PARTICIPANT CHARACTERISTICS

2111 Older Adults from Diverse Groups



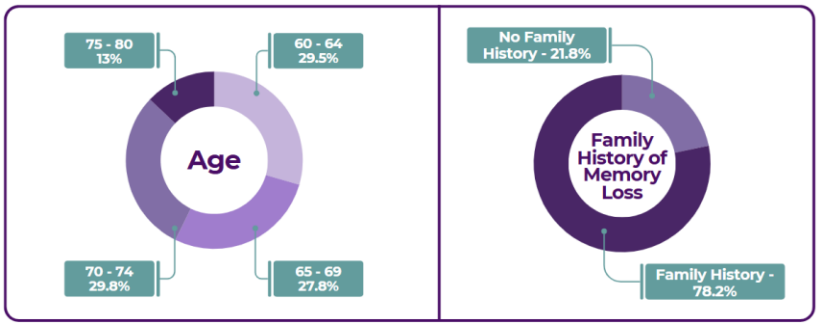
U.S.POINTER ALZHEIMER'S ASSOCIATION

14

2 What we did

PARTICIPANT CHARACTERISTICS

2111 Older Adults from Diverse Groups



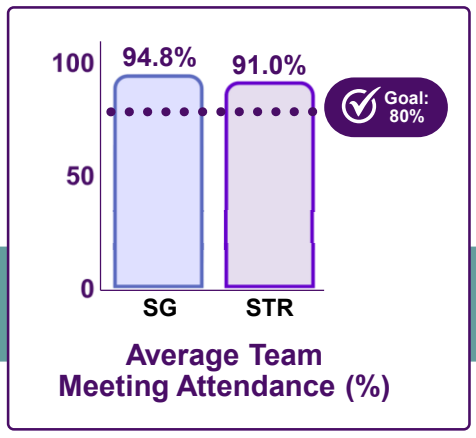
U.S.POINTER
ALZHEIMER'S ASSOCIATION

15

3 What we found

89% of all participants completed the last clinic assessment

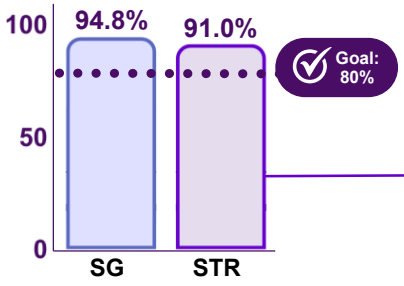
Both groups did well in following the POINTER interventions



U.S.POINTER
ALZHEIMER'S ASSOCIATION

16

3 What we found



Average Team Meeting Attendance (%)

For participants in the Structured intervention:

The average number of very active Fitbit minutes per week was 86 minutes (goal was 90 minutes)

The average MIND diet score was 11 out of 14 points (goal was ≥ 9.5)

U.S. POINTER ALZHEIMER'S ASSOCIATION

17

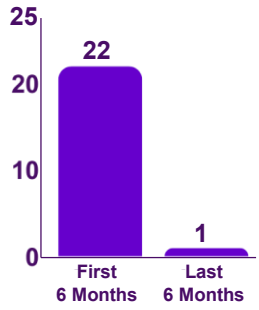
3 What we found

For the Structured group:

In the first 6 months, participants logged on to the cognitive training program (BrainHQ) for 23 of 24 weeks (on average).

In the last 6 months, participants logged on to the cognitive training program (BrainHQ) for 13 weeks of 24 weeks (on average).

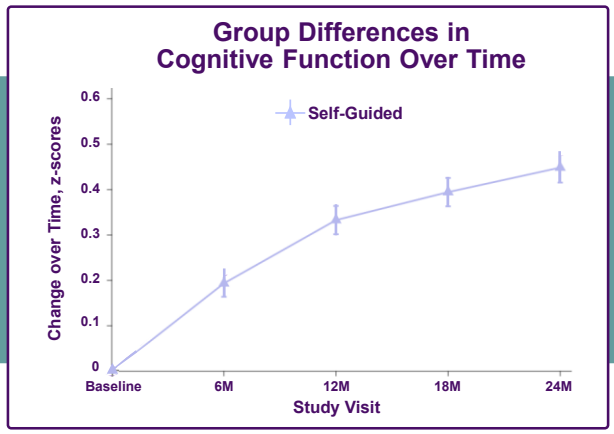
Average BrainHQ Levels Completed per Week



U.S. POINTER ALZHEIMER'S ASSOCIATION

18

3 What we found

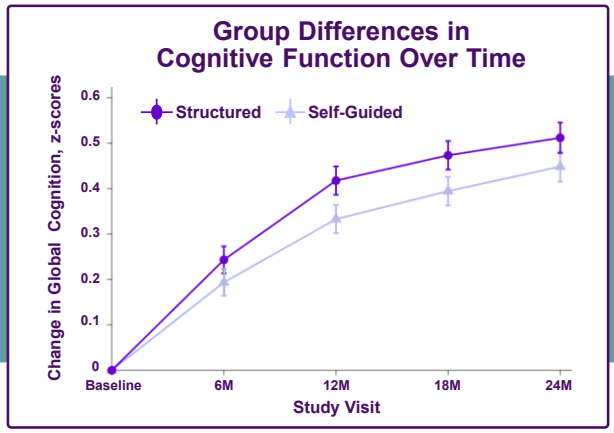


- The graph shows change over time in cognitive function during the study
- These scores are presented as 'z-scores'
- We use z-scores to report results, which allows us to use '0' as the starting point for all participants.
- Upward curves indicate improved performance (some of this is likely due to practice)

U.S.POINTER ALZHEIMER'S ASSOCIATION

19

3 What we found



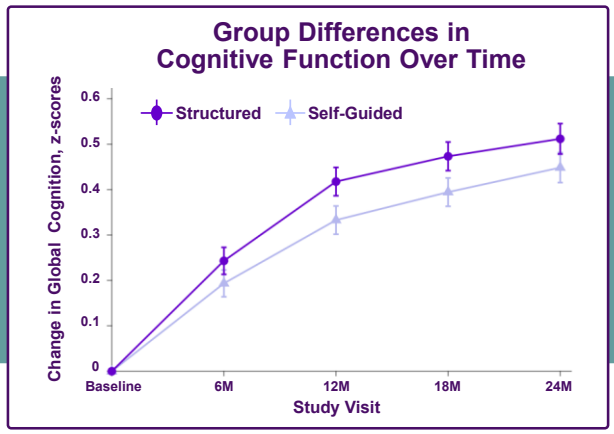
1 Cognitive function improved over time **for both groups***

**Some of this improvement is likely due to practice*

U.S.POINTER ALZHEIMER'S ASSOCIATION

20

3 What we found

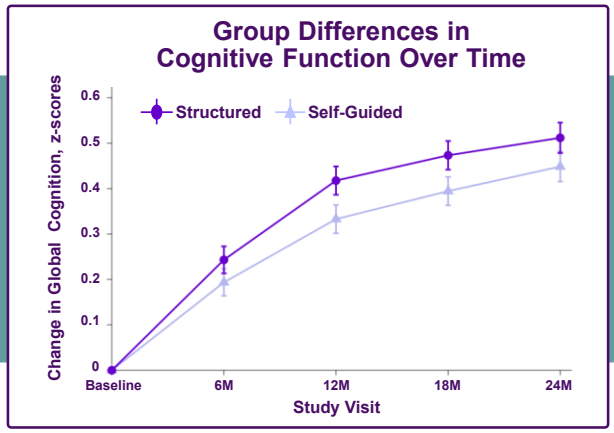


2 **The Structured intervention had a significantly greater benefit on cognitive function**

U.S.POINTER ALZHEIMER'S ASSOCIATION

21

3 What we found



3 **This extra benefit was the same** regardless of sex, age, race or ethnicity, ApoE4 genotype, and heart health

U.S.POINTER ALZHEIMER'S ASSOCIATION

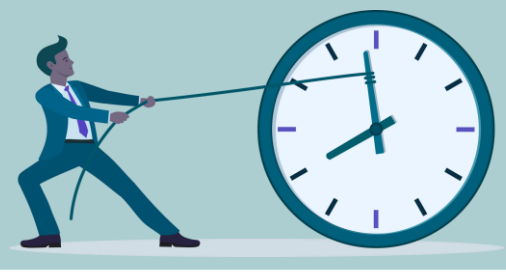
22

4 What this means

The structured group obtained scores that were similar to those that adults who are are 1 to 2 years younger might obtain.

That is, the structured intervention may slow the cognitive aging clock by an extra 1 to 2 years compared to the self-guided intervention.

This difference may provide additional protection against cognitive decline in the future.



U.S.POINTER ALZHEIMER'S ASSOCIATION

23

5 Where we go from here

OUR CONTINUED COMMITMENT TO BRAIN HEALTH

U.S.POINTER ALZHEIMER'S ASSOCIATION

24

WHAT THIS JOURNEY HAS MEANT TO OUR PARTICIPANTS

"I learned the importance of self-care. It will always be a part of my life now. I feel better!"

"I have become aware of how important it is to practice balance and stay flexible."

"I cannot believe how differently I am eating, and my mind feels sharper."

"This has been a life-changing 2 years... my husband has joined in and is doing the same things I am doing. I can see how much healthier he is, and he can see how much healthier I am... It is such a well ironed out program and my physical, mental, and social health has significantly improved."

"I'm doing physical exercise again for the first time in years."

"I feel stronger than most my age."

"This program has transformed not only my attitudes and behaviors toward brain health but also those of my daughter. Thanks to POINTER, my granddaughter won't have to make lifestyle changes later in life – the POINTER way will be her way from the beginning."

25

THANK YOU

U.S.POINTER
ALZHEIMER'S ASSOCIATION

26