Re-imagining our approach to brain health

Wellness Wednesday
Oct 13, 2021

Thomas J. Grabowski MD
Director, UW Memory and Brain Wellness Center
Director, Alzheimer Disease Research Center
University of Washington
AD: the only leading cause of death that is increasing

We all have a story about a loved one with Alzheimer’s
Messaging for urgent action


vs

Messaging for someone with memory loss (or worried about it)
Alzheimer’s disease
• Even though the total number of cases of dementia due to Alzheimer’s is increasing,

• The *rate* of Alzheimer’s disease among aging people has actually declined in U.S., Europe, Japan
  – Correlates with more education
  – Probably also reflects better primary care, notably better control of hypertension
Countering the narrative of loss:

... with a positive, scientifically grounded, forward-looking view of brain health
Four big ideas

- Understanding AD across all its stages
- Building resilience to Alzheimer’s disease
- Strengths-based reframing of AD
- Dementia-friendly community
What is normal cognitive aging?

- Slower thinking
- Less intense focusing of attention
- Occasional word-finding problems
- Concern about memory changes

but ...

Remembering important new material, communication, and daily living are not compromised
What is mild cognitive impairment?

- Concerns about memory
- Objective decline in memory or cognition
- Daily living capacity is not compromised

What is dementia?

- Objective decline in more than one domain
- Impairments of usual level of daily function
Six stages of Alzheimer’s disease
(Braak staging)
Six progressive stages of Alzheimer Disease

What is the plaque and tangle stage (1 to 6) of mild/earliest Alzheimer dementia?
What is the plaque and tangle stage (1 to 6) of mild/earliest memory loss?

Six progressive stages of Alzheimer Disease

- Pre-Symptomatic
- Amnestic MCI
- Dementia
Pre-Symptomatic | MCI | Dementia
---|---|---
15+ years? | 5+ years | 8-10 years
Medial Temporal | Limbic | Cortical
Reframing brain aging & Alzheimer disease

Understanding AD across all its stages

• It’s not possible to really separate healthy cognitive aging and preclinical Alzheimer’s (without expensive research tests).

• For every person with dementia there are two with earlier stage Alzheimer’s disease - up to 25% of 70 year-olds.

• There is a long preclinical period before symptoms happen.

• Therefore prevention of dementia is a realistic strategy.
Any of us may be walking this road
Four big ideas

• Understanding AD across all its stages
• Building resilience to Alzheimer’s disease
• Strengths-based reframing of AD
• Dementia-friendly community
What is “Resilience”? 

• An aspect of brain health
• How well your brain functions in spite of the challenge of Alzheimer’s changes
• Resilience is strongly related to lifestyle factors, over the long term
• For a given amount of brain atrophy, some people have better memory and thinking than others
• This is what we mean by “resilience” to AD
• Resilience is related to education level

- Resilience is also related to:
  a challenging job, regular exercise, lively cognitive habits, social connectedness
LEANING IN

THE RELATIONSHIP OF ALZHEIMER’S CHANGES TO SYMPTOMS IS MODIFIABLE

The point at which memory will tip can be delayed by years by lifestyle:

- Exercising the mind
- Social engagement
- Physical exercise
- Vascular health

These effects are likely to be additive with any effects of medicine in the future treatment of Alzheimer’s.
Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER)

- 1260 Finnish seniors
- Interventions:
  - diet,
  - exercise,
  - cognitive training,
  - vascular risk monitoring
Resilience and brain health

• The relationship of plaques and tangles to brain health is modifiable.
• A substantial amount of brain reserve is realistic to attain with good cognitive habits.
• Lifestyle choices can make years of difference in one’s “tipping point” to get memory loss
• We can all build and maintain brain reserve.
Four big ideas

• Understanding AD across all its stages
• Building resilience to Alzheimer’s disease
• Strengths-based reframing of AD
• Dementia-friendly community
STRENGTHS-BASED REFRAMING

... and the abilities that a person retains in the midst of them...

- Not all brain regions and systems are equally affected by degenerative changes
- Relatively spared systems are the basis for retained strengths
BRAIN REGIONS USED FOR LEARNING HABITS AND SKILLS

“PROCEDURAL MEMORY; MUSCLE MEMORY”

MEMORY FOR HOW VS. MEMORY FOR WHAT
Another retained strength: Creative impulse

THE ARTIST WITHIN – January 8 – February 26, Seattle City Hall Lobby and Anne Focke Galleries – Open M-F 7am – 6pm

THE ART of Alzheimer’s
Summary
Strengths-based reframing of dementia

Alzheimer disease tends to spare certain brain regions, which support “retained strengths”

– Motor and sensory abilities
– Learning new skills and habits
– Accessing memory from sensation, experiencing the world “in the moment”
– Creative impulse
– Learning in a social context
Four big ideas

• Understanding AD across all its stages
• Building resilience to Alzheimer’s disease
• Strengths-based reframing of AD
• Dementia-friendly community
The Memory Hub

A Place for Dementia-Friendly Community, Collaboration and Impact
What is the Memory Hub?

• A vibrant new place for dementia-friendly community, collaboration and impact, opening November 2021.

• Operated by UW Medicine on behalf of the wider memory loss community and aligned professionals

Marigrace Becker MSW  Kristoffer Rhoads PhD
Located on Seattle’s First Hill in a building owned by our partners the Frye Art Museum

1021 Columbia Avenue
Goal 1: Local Community of Support
Our wellness programs, like ADAPT
Gathering space, classrooms, art gallery, memory garden, library

Goal 2: Collaboration and Innovation
Alzheimer’s Association  Elderwise
Full Life Care  Project ECHO

Goal 3: Statewide Impact
Training programs, ZOOM room, annual symposium
Dementia
MCI
Subjective Memory Loss
Normal Cognition
Prevention
Living with Memory loss
MCI
Cognitive Reserve
Dementia
Engaging strengths
We envision a world in which people with memory loss live well within a community of support.
Questions?
depts.washington.edu/MBWC
Visit the Memory Hub and the Frye Art Museum
Contribute your ideas, talent, and support

Volunteer with The Memory Hub:
Contact Mari Becker, Program Manager of Community Education & Impact
(206) 744-2017, mbecker1@uw.edu

Clinical appointments – Memory and Brain Wellness Center at Harborview
(206) 520-5000 “First call appointing”

Participate in a research study:
Contact Jessica McDougall, ADRC Lead Research Coordinator
(206) 744-0588, uwadrc@uw.edu

Provide financial support: Help us do something special!
Contact Courtney Stringer, Director for Philanthropy
(206) 221-7526, stringce@uw.edu