

The Aging ADHD Brain

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Faculty/Presenter Disclosure

Faculty: Brandy Callahan

Relationships with commercial interests:

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Disclosure of Commercial Support

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Potential for conflict of interest:

Dr. Callahan has received funding from the Alzheimer's Association and the Canada Research Chairs program.



Mitigating Potential Bias

Content is not about the supporting organizations' products or services.

Content will not include personal recommendations and will include only information that is explicitly evidence-based.

Take-home messages

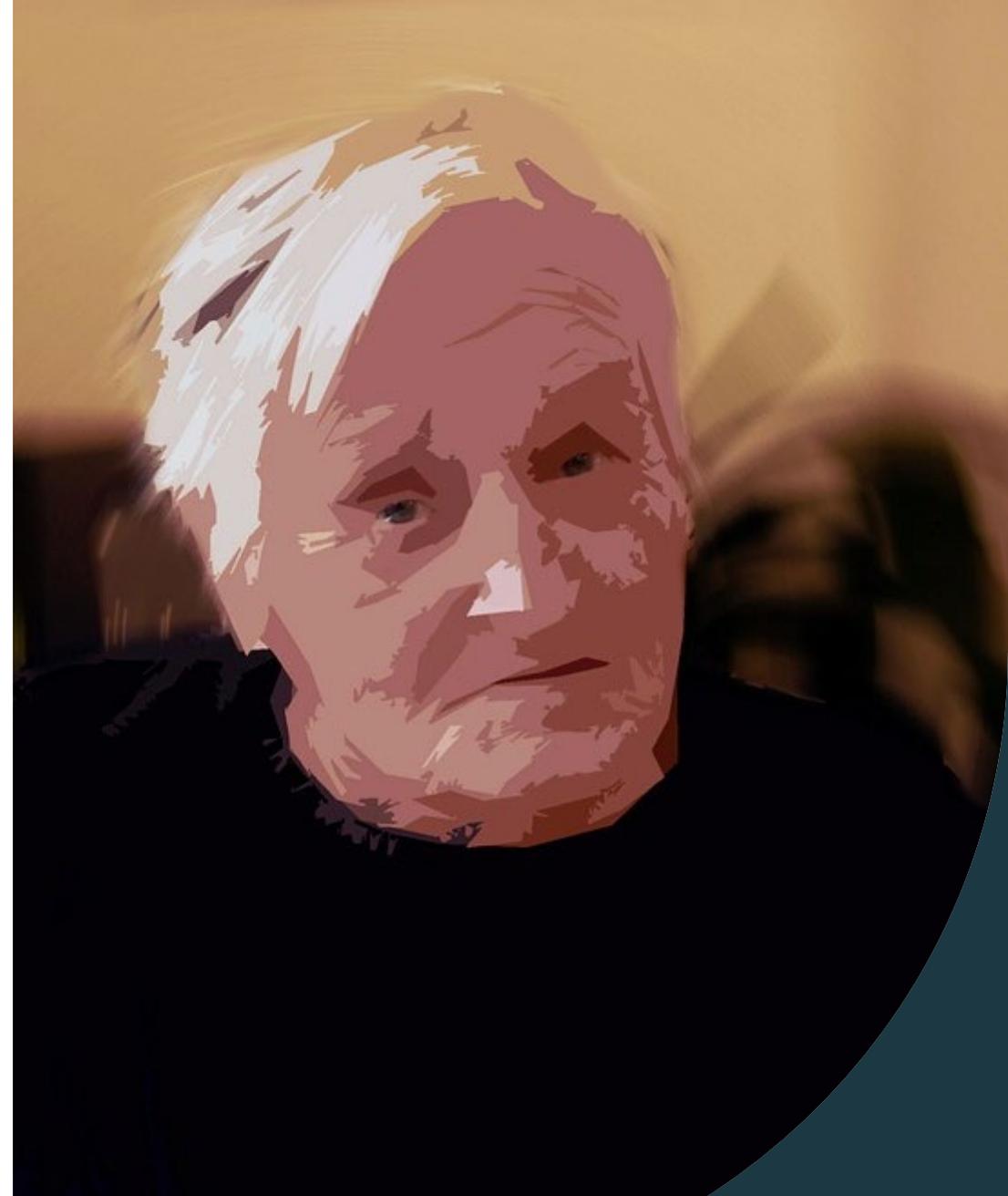
- ADHD is common in older adults
- It may be associated with MCI-like cognitive impairment
- It may increase risk for dementia

What is 'ADHD'?

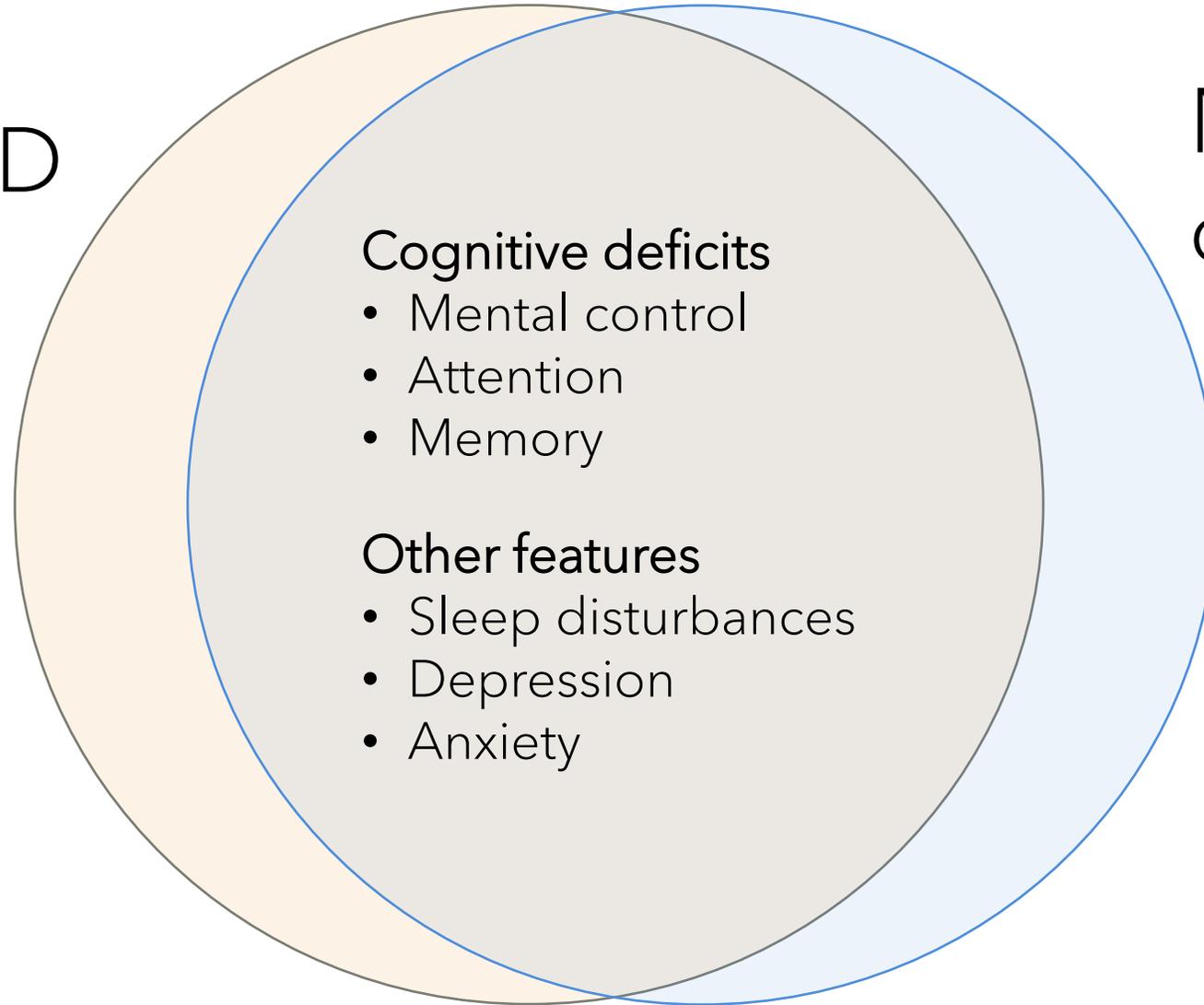
- Problems concentrating, significant forgetfulness
- Problems controlling impulsive behaviors, acting without thinking
- Always begins in early life (akin to 'personality traits')
- Usually chronic (but *type* of problems may change)
- Runs in families

Why is it important?

- Often unrecognized in older adults, yet relatively common (3%, or ~1 in 30)
- Associated with other medical, social, or financial problems
- Can look like early signs of dementia



ADHD



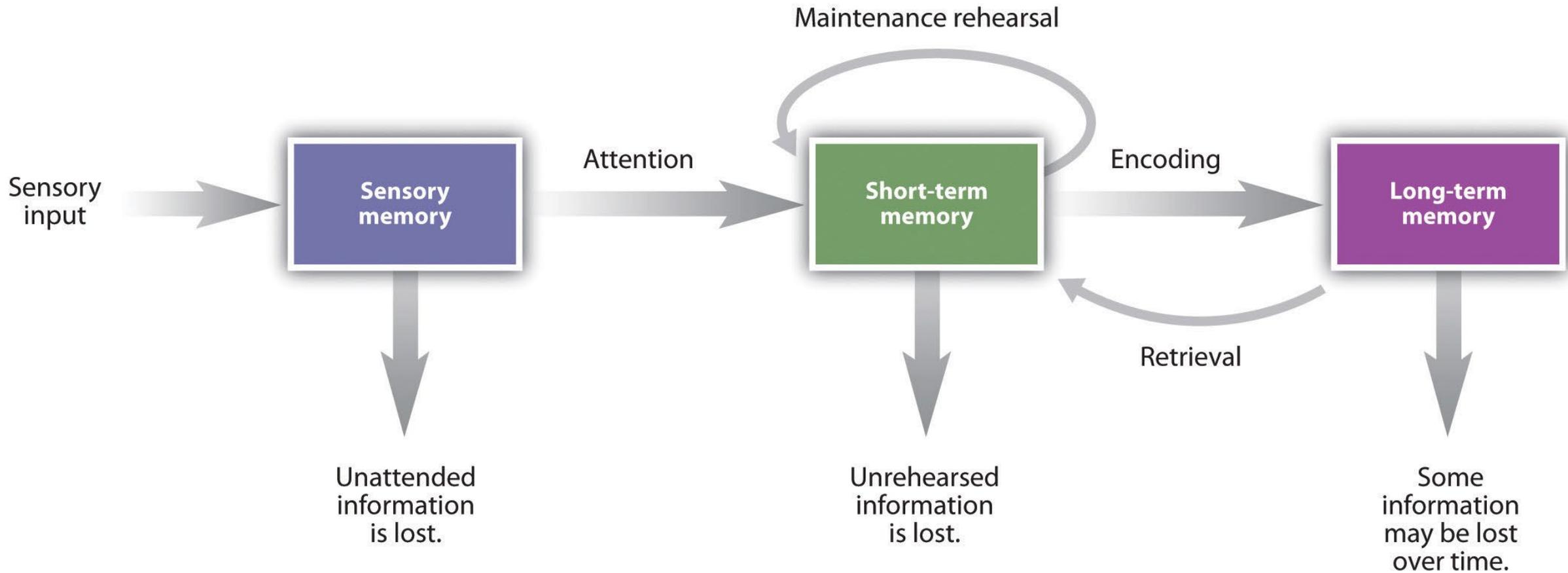
Many (early)
dementias

Cognitive deficits

- Mental control
- Attention
- Memory

Other features

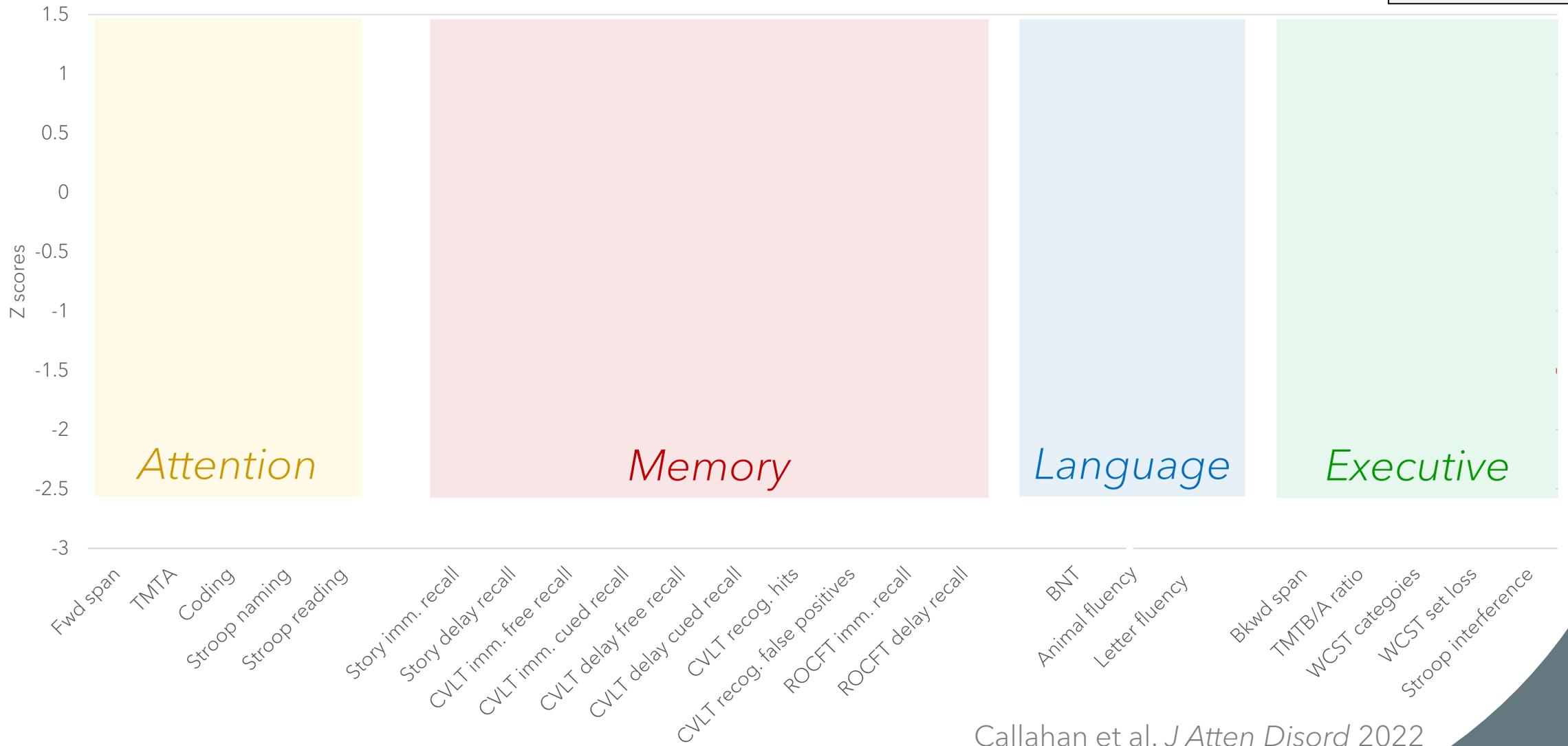
- Sleep disturbances
- Depression
- Anxiety



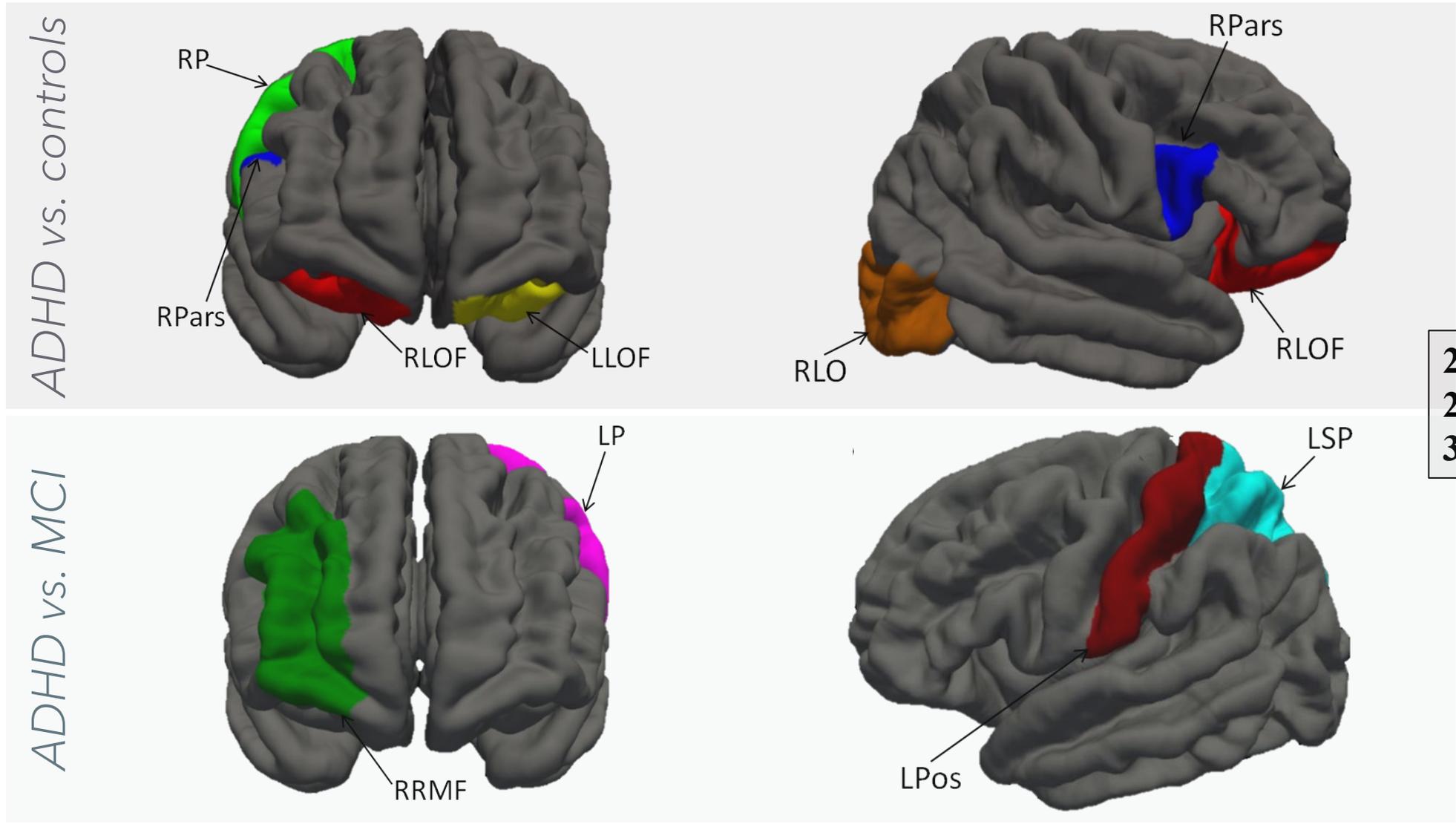
Walters, S. *Psychology: 1st Canadian Edition*; Atkinson & Shiffrin, 1968 (Used under CC BY-NC-SA 4.0)

■ 40 ADHD
 ■ 29 MCI
 ■ 37 Controls

*different from controls; §different from MCI

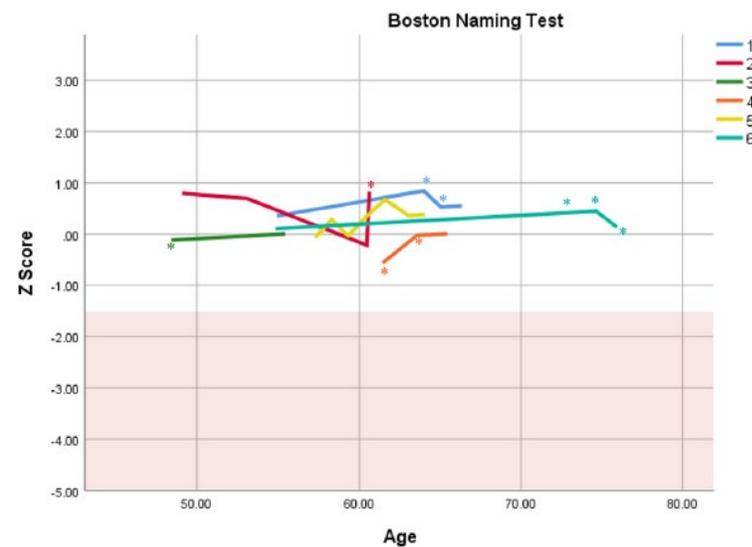
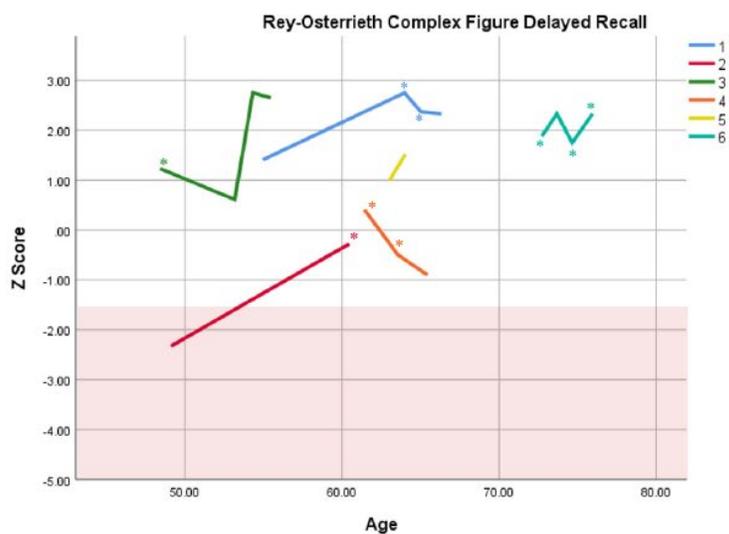
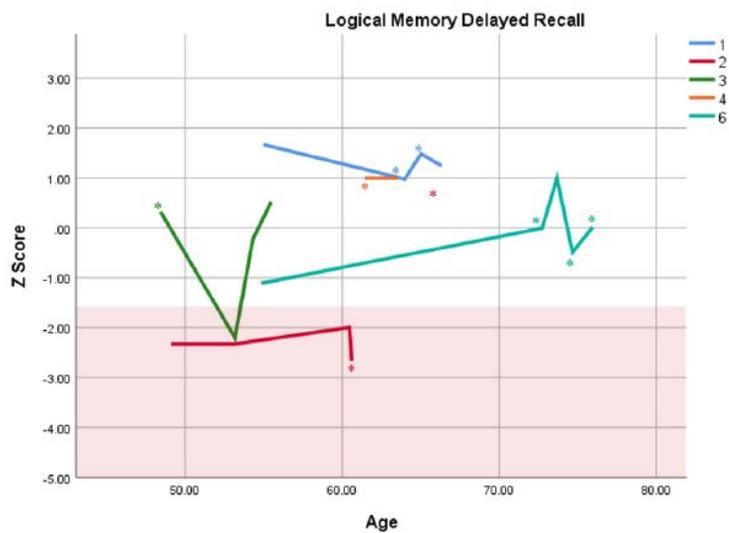
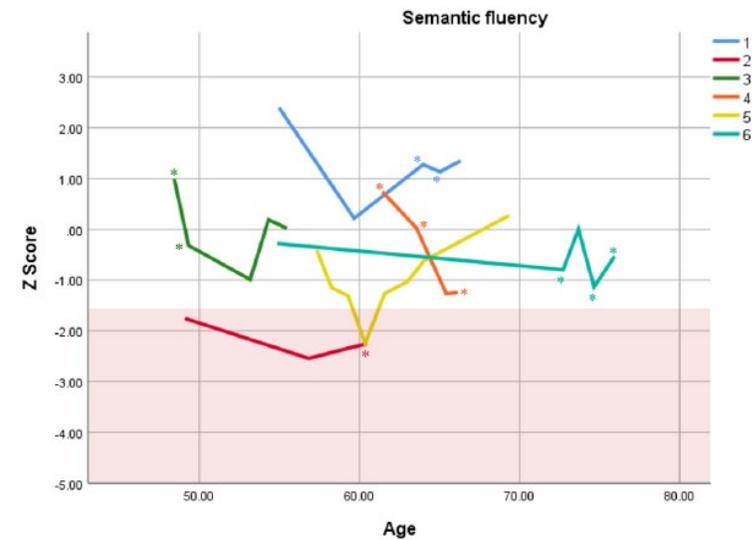
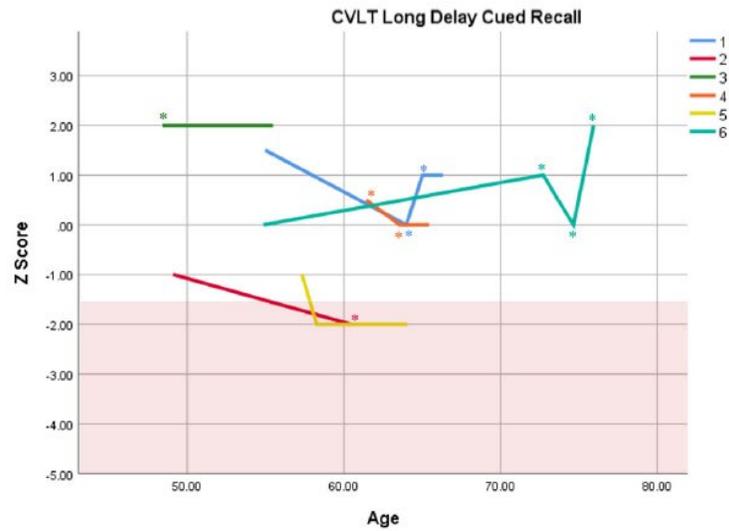
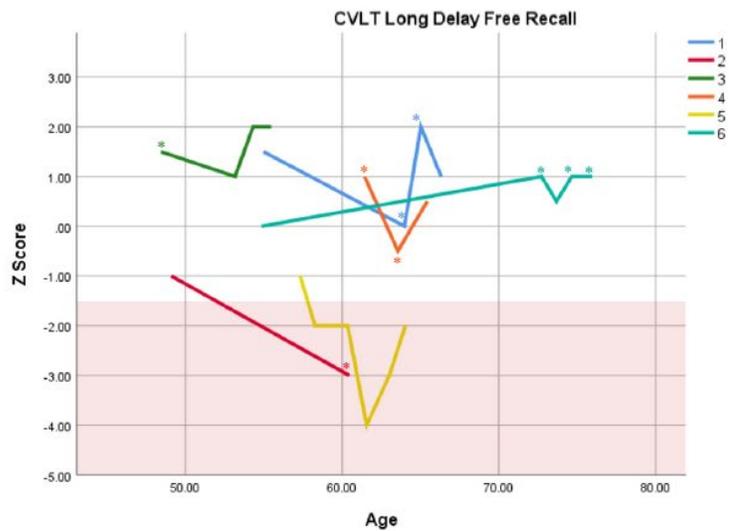


Callahan et al. *J Atten Disord* 2022



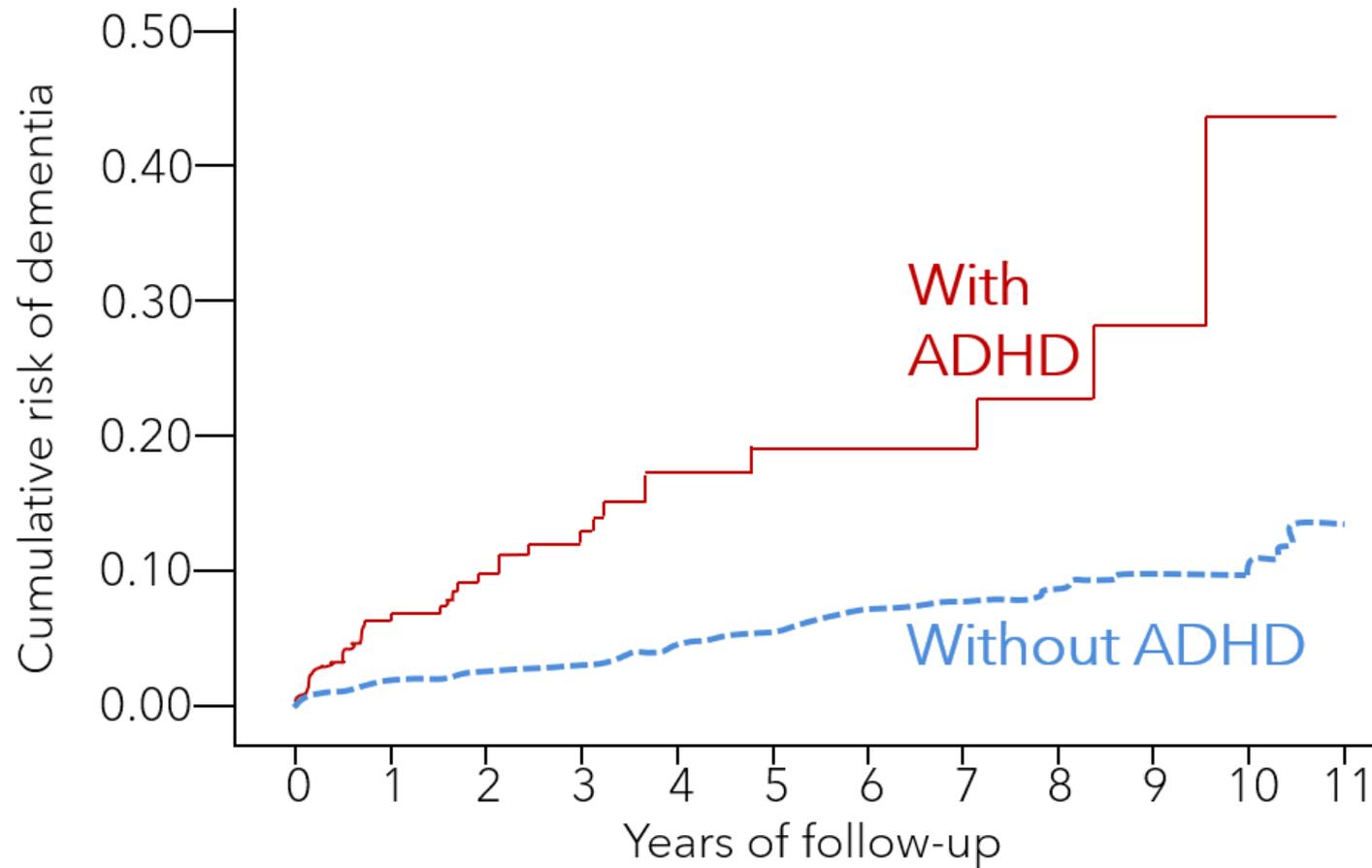
26 ADHD
21 MCI
33 Controls

Callahan et al. *J Atten Disord* 2022



Callahan et al. *Frontiers Aging Neurosci* 2022

Is it linked to dementia? Some evidence says yes.



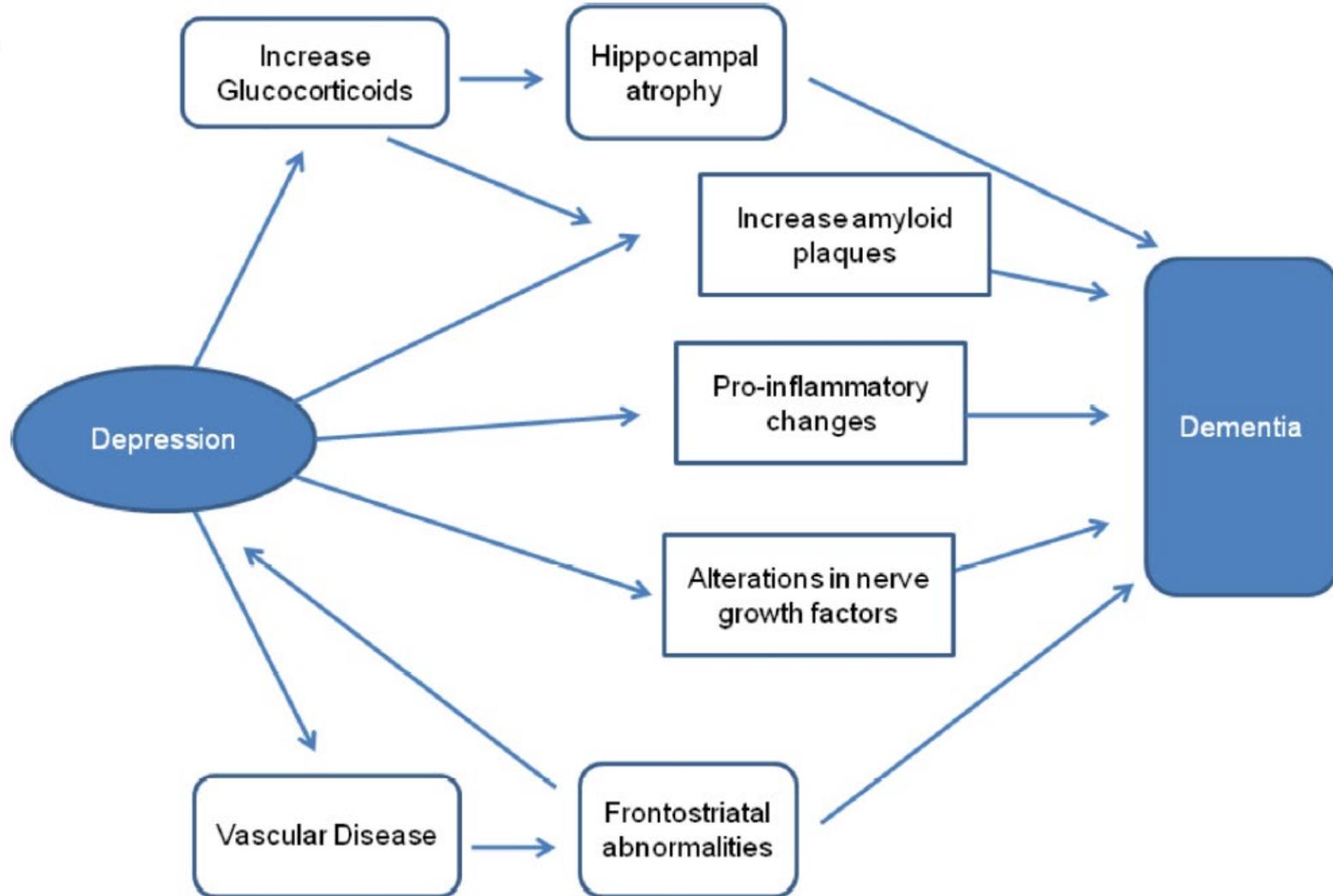
Tzeng et al. *J Atten Dis* 2017

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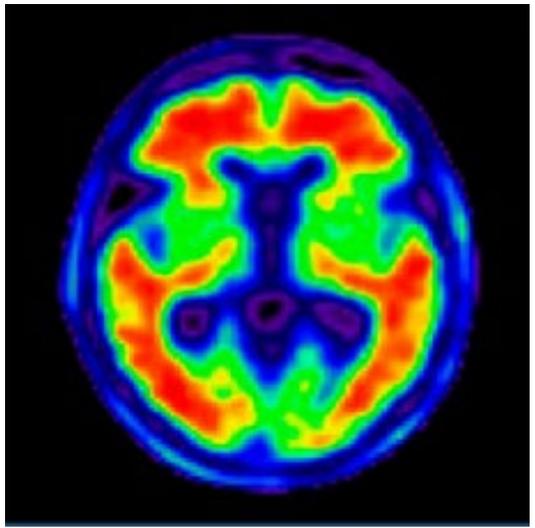
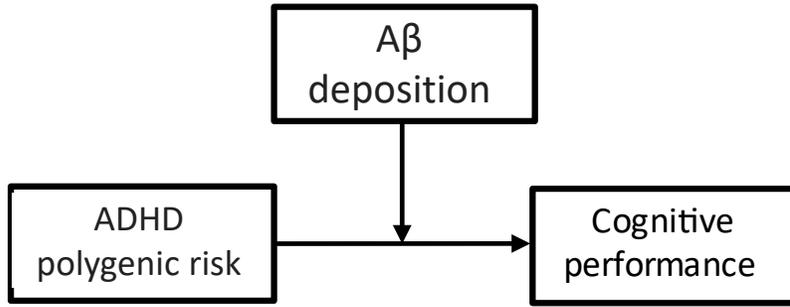
- All-cause dementia HR_a 0.98–4.01 (*Dobrosavljevic et al., Eur Psychiatry 2021; DuRietz et al., Lancet Psychiatry 2021; Tzeng et al., J Atten Disord 2019*)
- Alzheimer's dementia HR_a 0.52 (*Tzeng et al., J Atten Disord 2019*)
- Lewy body diseases OR_a 1.5 to HR_a 2.6 (*Curtin et al., Neuropsychopharm 2018; DuRietz et al., Lancet Psychiatry 2021*)
- Vascular dementia HR_a 6.3 (*Tzeng et al., J Atten Disord 2019*)
- Mild cognitive impairment HR_a 1.71 (*Dobrosavljevic et al., Eur Psychiatry 2021*)

Becker et al. *Frontiers Psychiatry* 2023

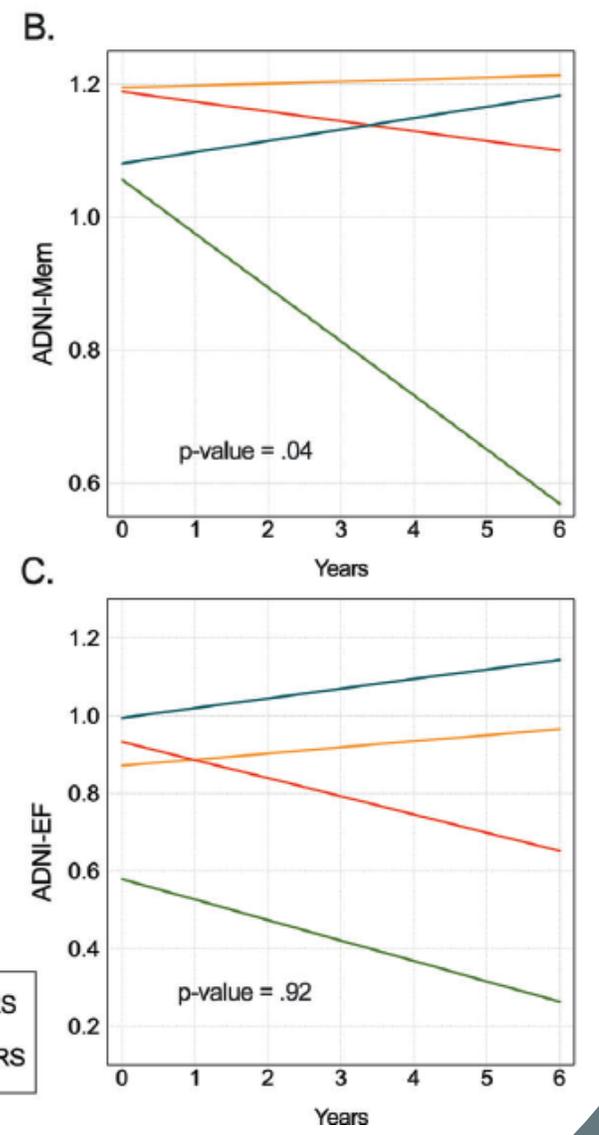
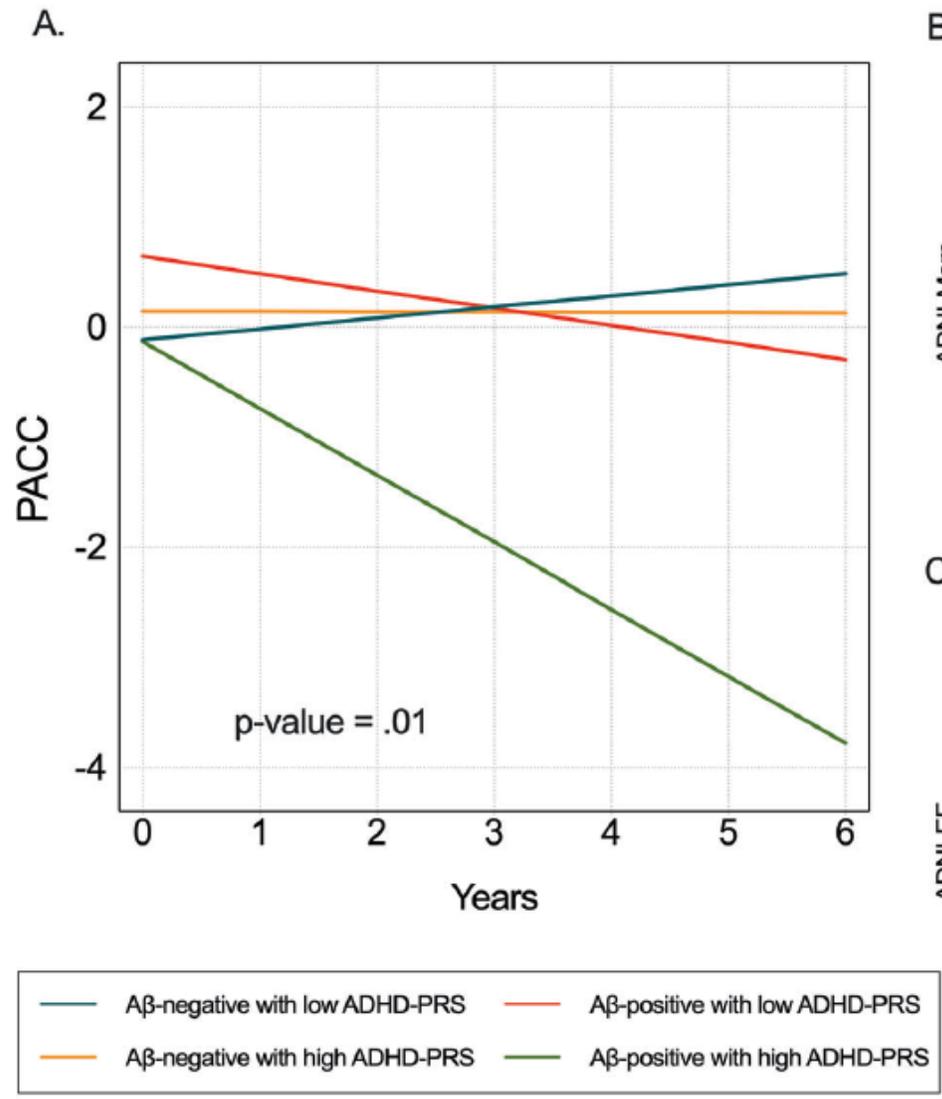
Why?



Byers & Yaffe, *Nat Rev Neurol* 2012



doi:10.1038/mp.2014.9



Leffa et al. *Mol Psychiatry* 2023

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