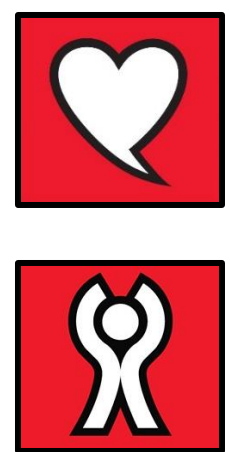


The Montreal Heart Institute Cognitive Health Program: An Innovative Intensive Approach to Preventing Cognitive Decline in At-Risk Individuals



Affiliations



Université de Montréal

Christine Gagnon, PsyD PhD, Anil Nigam, MD, Paolo Vitali, MD PhD, and Louis Bherer, PhD

Introduction

57 million individuals with **major neurocognitive disorder** worldwide [1].

No systematic approaches to manage cognitive deficits of individuals at risk of cognitive decline.

Lifestyle changes help reduce risk of cognitive decline in individuals at-risk or with mild cognitive impairment [2,3]

Objective

To present the **Montreal Heart Institute Cognitive Health Program**, a unique approach to manage cognitive deficits through the adoption of lifestyle habits that promotes cognitive health and risk factor management.

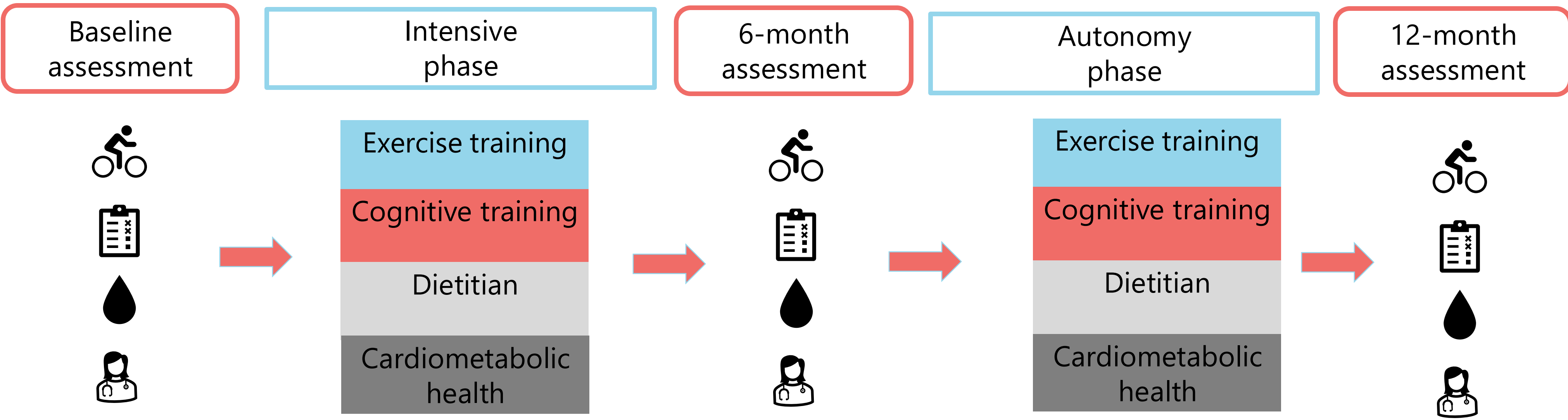
References

[1] WHO, Dementia Key Facts (2025).
[2] Livingston et al., (2024) The Lancet commission on dementia prevention, intervention and care.
[3] Montero-Odasso et al. (2023). Effects of Exercise Alone or Combined With Cognitive Training and Vitamin D Supplementation to Improve Cognition in Adults With Mild Cognitive Impairment: A Randomized Clinical Trial. JAMA Netw Open. 2023

Contact

Methods

- Patients**
- SCI or MCI
 - At-risk (genetic or CVD risk/disease)
- Multidisciplinary team**
- Neuropsychologists
 - Kinesiologists
 - Dietician
 - Nurse Practitioner
 - Cardiologist
 - Neurologist
 - Social Worker



Results

Mrs. D. "My memory worries me"

F 68yrs, high school, retired.
Medical conditions: Metabolic syndrome, insulin resistance.
Diagnosis: **subjective cognitive impairment**

40% cognitive training (IPad)
86% group memory training
82% physical training
4 meetings with dietitian

Figure 1. Pre and 6-month cognitive performances Mrs. D.

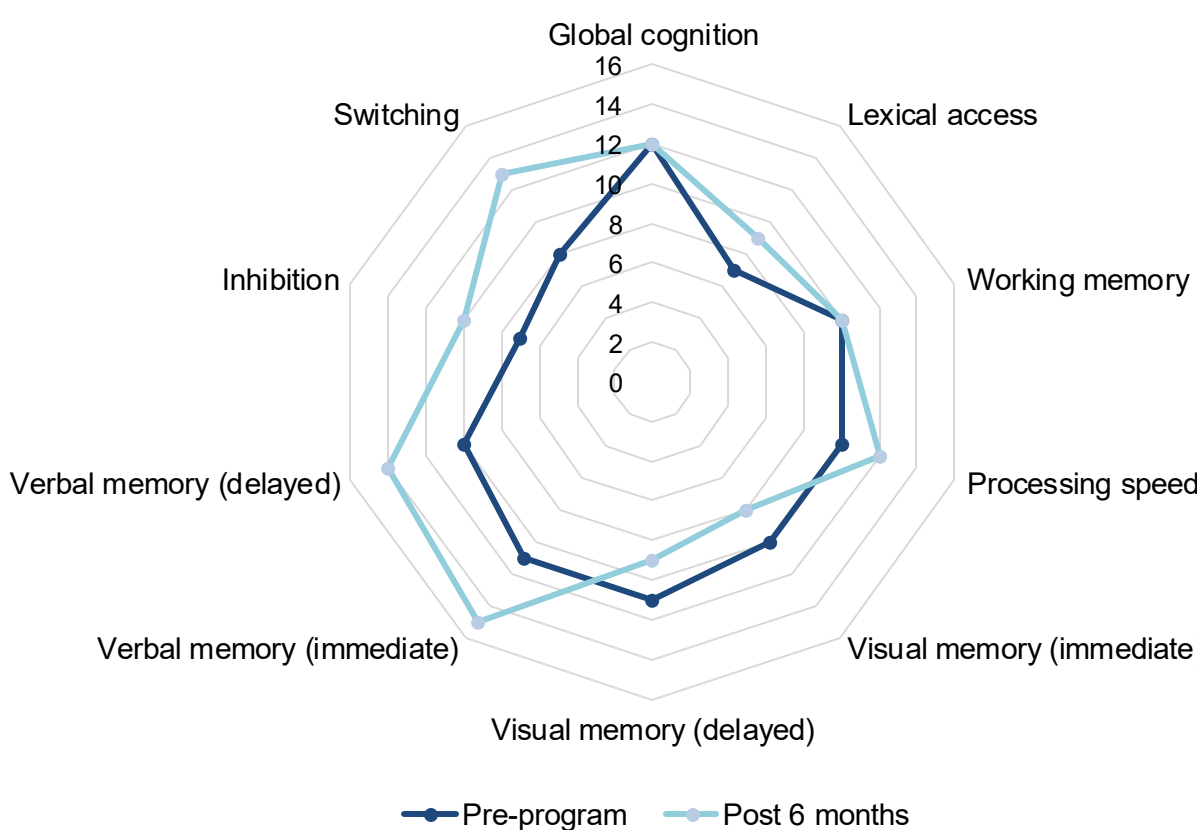
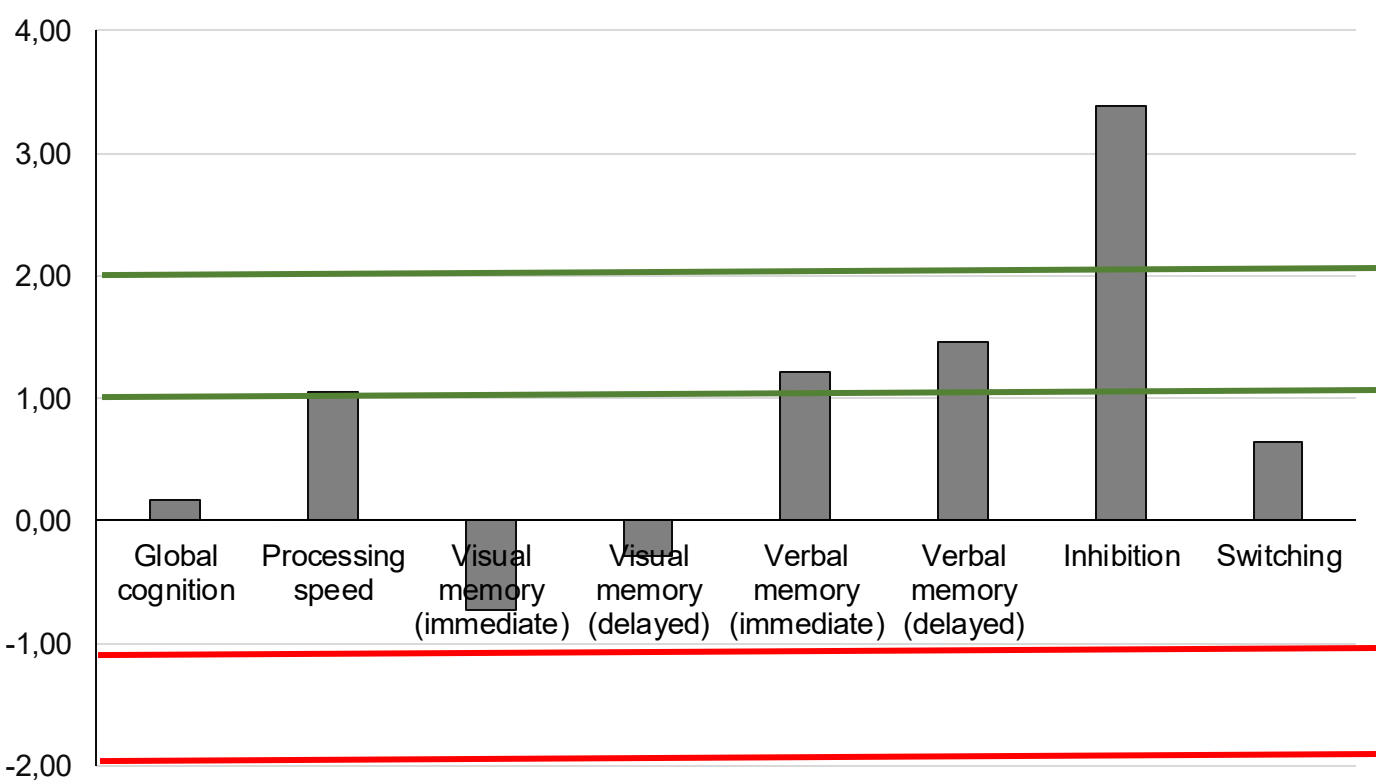


Figure 2. Reliable change index scores Mrs. D.



Mr. M. "My memory is fading away"

M 67yrs, high school, retired.
Medical conditions: Coronary heart disease, heart failure.
Diagnosis: **amnesic mild cognitive impairment + pTau-217**

94% cognitive training (IPad)
88% group memory training
70.5% physical training
4 meetings with dietitian

Figure 3. Pre and 6-month cognitive performances Mr. M.

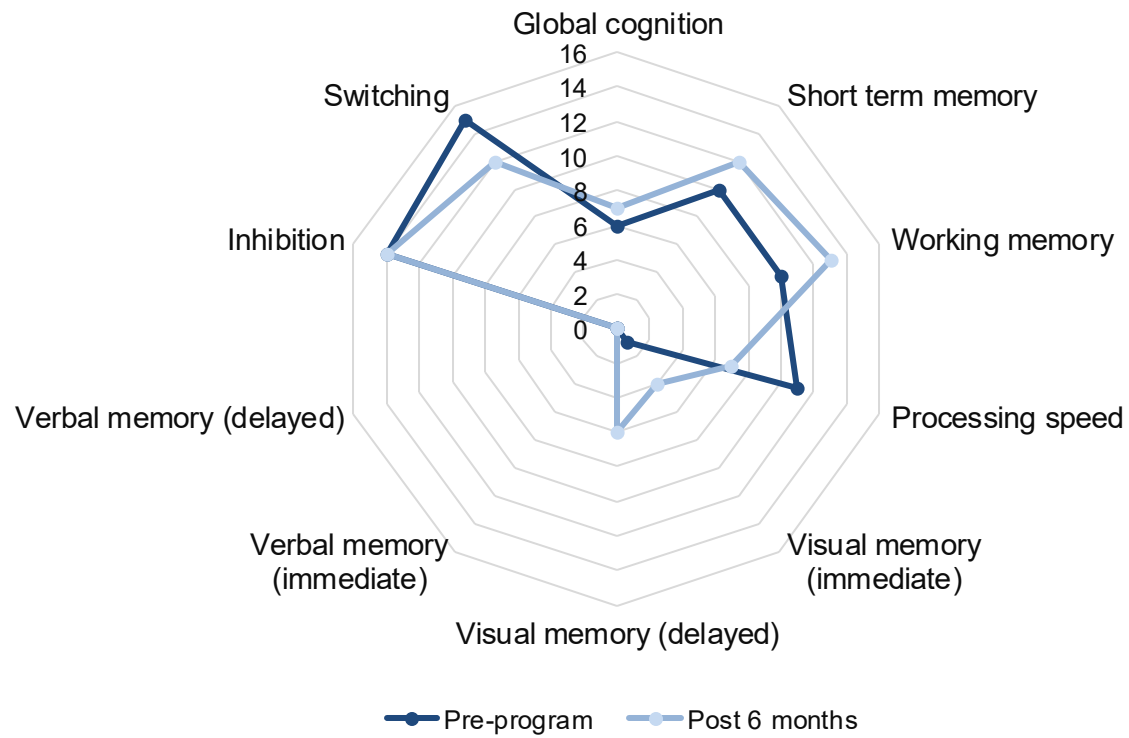
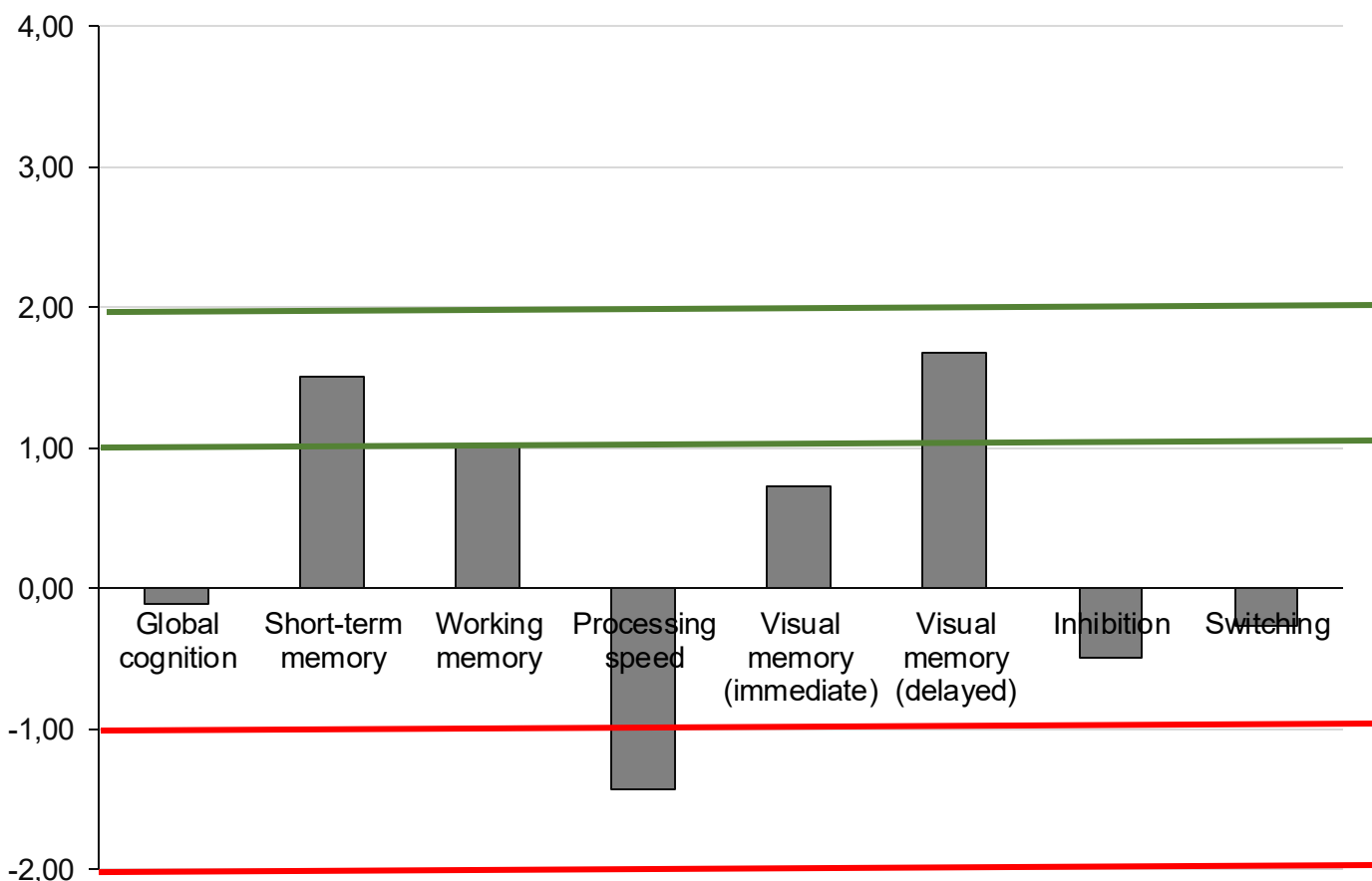


Figure 2. Reliable change index scores Mr. M.



Conclusion

- The MHI Cognitive Health Program is an **intensive** and **patient-tailored program** that promotes brain health in individuals with MCI and at-risk of cognitive decline through healthy lifestyle habits : optimization of cardiometabolic treatment, exercise and cognitive training, and nutritional counseling.
- The two clinical cases presented illustrate that **meaningful cognitive changes** can take place even with positive biomarkers of Alzheimer's disease.