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Abstract title: A multidomain online behavioural intervention for dementia risk reduction: preliminary results from the Luci pilot feasibility study

Authors: *Isabelle Lussier, PhD (Lucilab), Juliette Guillemont, MSc (Lucilab), Flavie M. Laroque, PhD (Lucilab), Simon L. Bacon, PhD (Hôpital du Sacré-Coeur de Montréal, Concordia University), Michel Boivin, MD (Centre hospitalier de l'Université de Montréal, Université de Montréal), Guylaine Ferland, PhD (Centre de recherche, Institut Universitaire de Gériatrie de Montréal, Université de Montréal), Kim L. Lavoie, PhD (Université du Québec à Montréal, CIUSSS-NIM, Hôpital du Sacré-Coeur de Montréal), Guy Paré PhD (HEC Montréal), Sylvie Belleville, PhD (Centre de recherche, Institut Universitaire de Gériatrie de Montréal, Université de Montréal).

Background: Evidence suggests that modifiable lifestyle factors may account for 40% of dementia cases. Past studies showed that multidomain lifestyle interventions reduce cognitive decline in at-risk older adults. Thus, there is considerable interest to test online risk reduction programs, as this format facilitates population-based scalability. However, recruiting older adults in online interventions might be challenging. Therefore, factors influencing participation in such trials warrant detailed investigation.

Objectives: To investigate participant uptake and characteristics in the Luci dementia risk-reduction trial.

Methods: This is an ongoing 24-week community-based, waitlist-randomized (2:1) pilot feasibility study to enrol cognitively healthy individuals aged 50–70 with ≥ 1 risk factor related to physical activity, diet, or cognitive engagement. The behavioural coach-assisted intervention is web-based. Recruitment, participants' motivations, stage of change (SOC), dementia knowledge, and subjective memory impairment and concerns (SMIC) were assessed at baseline.

Results: Of the 178 people invited, 157 (88%) completed screening, and 120 (67%) were eligible and randomized (mean age 61 yrs; mean education 17 yrs; 85% women). 75% had ≥ 2 lifestyle risk factors. Family history of dementia was reported in 55%, SMIC in 38%, and 53% rated their dementia knowledge as *average*. The main motivations to participate related to wanting to make lifestyle changes and reduce their dementia risk. 38% were in the *Action* SOC.

Conclusion: Results provide insight into the ability to reach the target population and on factors that characterize participants enrolled in Luci, which can be used to design strategies to improve the program reach.