

CU-SMILE (Computer Use for Seniors on Mood Improvement and Logic Enhancement): Interim Findings from a Community-Based Project



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TAKEAWAY MESSAGES:

- Effective in real-world settings:** Community-delivered Computerised Cognitive Training is feasible, safe, and achieves high adherence.
- Meaningful clinical benefit:** Produces significant improvement in mood symptoms with modest cognitive gains in late-life depression.

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	ACKNOWLEDGEMENT
Late-life depression (LLD), associated with executive dysfunction and poor antidepressant response, may reflect early neurocognitive disorders. Our prior RCT showed that executive function-targeted computerised cognitive training (CCT) improves mood, cognition, and serum BDNF levels in older adults with LLD. Building on this evidence, we implemented CCT in real-world community settings.	We partnered with 12 community centres to deliver CCT to older adults with moderate-to-severe depression and executive dysfunction, without mild or major neurocognitive disorder. The 6-week intervention comprised 12 one-hour sessions targeting attention, executive control, and working memory. Outcomes were HAM-D, MoCA (alternate form post-intervention), and adherence (by attendance).	In this interim analysis, 120 community-living older adults with LLD received CCT. HAM-D scores decreased from 19.3 to 11.1 ($p<0.001$), indicating clinically meaningful improvement. MoCA scores increased from 26.1 to 26.9 ($p=0.003$). Adherence was high (mean 11.1 sessions), with no severe adverse events.	Consistent with our prior RCT, executive function-targeted CCT shows promise as a feasible, safe, and scalable treatment to improve mood and cognition among older adults in real-world community settings, with potential to delay progression to neurocognitive disorders. Ongoing follow-up and full cohort completion are needed to confirm these interim findings.	CU-SMILE was funded by the Knowledge Transfer Project Fund of the CUHK and the Social Innovation and Entrepreneurship Development Fund of the Government of the Hong Kong SAR. *Corresponding Author Dr. Allen Lee Associate Professor, Department of Psychiatry, Faculty of Medicine, CUHK allenlee@cuhk.edu.hk ALZHEIMER'S ASSOCIATION AAIC 26