The benefits of a combined cognitive and functional-task based exercise program for older adults with mild cognitive impairment: preliminary findings from a pilot study

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Introduction

- Mild Cognitive Impairment (MCI) refers to cognitive impairment that does not meet the criteria for dementia
- The criteria for MCI includes a measurable deficit in cognition, in the absence of dementia, or impairment in activities of daily living
- MCI prevalence ranges from 6.7% for ages 60-64 to 25.2% for ages 80-84 with 14% progressing to dementia
- There is no high-quality evidence supporting pharmacologic intervention for MCI, however exercise as a non-pharmacologic intervention shows promise
- Combined exercise and cognitive interventions provides moderate-to-large positive effect

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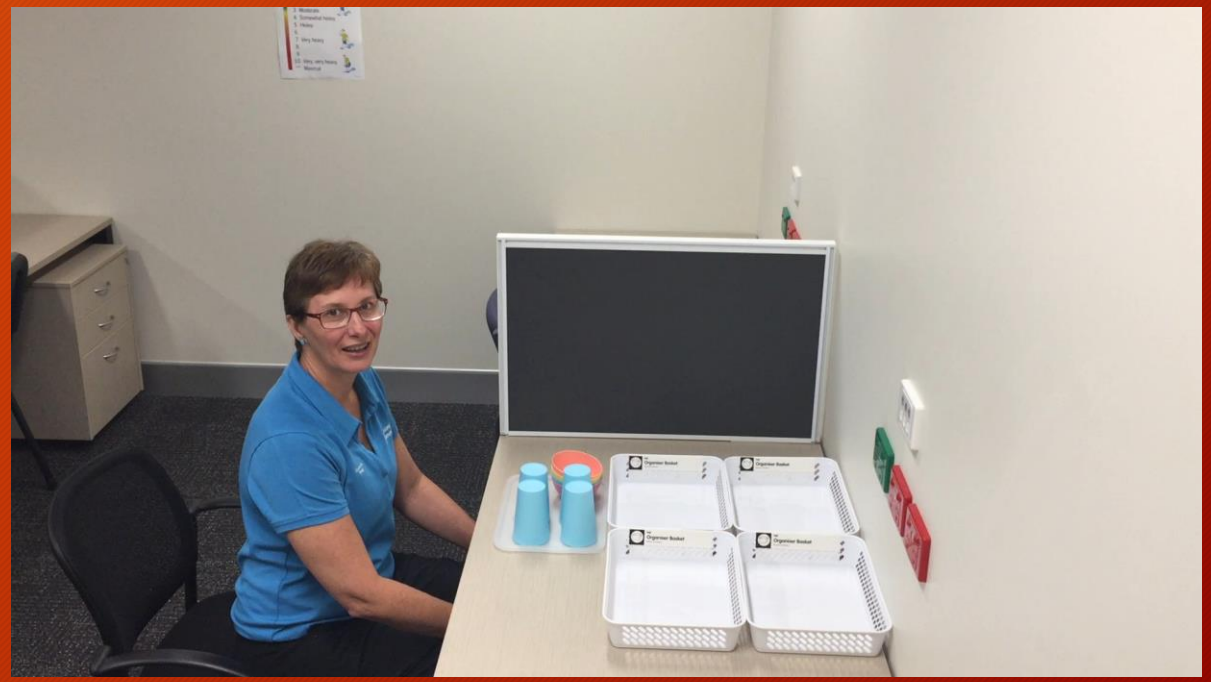
The Functional Task Exercise program

Time	Activity	Support
Before intervention	Home visit and Pre-assessment	OTA and OT
Weeks 1-4	Twice weekly, one-hour group sessions One, one-hour session at home	OTA and OT
Weeks 5-8	One, one-hour group session Twice weekly, one-hour session at home	OTA and OT
Weeks 9-10	Twice weekly, group sessions Five home sessions	OTA and OT
After intervention	Post-assessment	OT
3 months later	Follow up individual assessments	OT



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Aim & Objectives

- AIM: to pilot the functional task and exercise program in a real-world setting in Australia
- PRIMARY OBJECTIVE: to measure the acceptability of the program for Australian conditions
- SECONDARY OBJECTIVE: to measure the feasibility of program for Australian conditions

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Methodology

- **Quantitative measures:** Neurobehavioral Cognitive Status Examination, Verbal Fluency Test, Verbal Learning Test, Trial Making Test A and B, Lawton Instrumental Activities of Daily Living Scale (Lawton IADL) and Problems in Everyday Living (PEDL) Test
- **Qualitative study:** interviews with patients and carers

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RESULTS

- 47 community-dwelling older adults were recruited as potential participants and 23 of them were invited to participate in the program
- 80% of the 23 participants completed the program demonstrating its acceptability
- This pilot study demonstrated clinical effectiveness of the cognitive and functional task exercise program in the Australian context
- Strengths of the program were demonstrated by quantitative and qualitative methods
- Numerous contextual issues were identified as a barrier to translating this program to Australia

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RESULTS

Test	Baseline (StDev)	Post (P)	3-month FU
NCSE	72.82 (3.47)	76.88 (2.83)	77.71 (2.73)
TMT A	0.46 (0.24)	0.37 (0.11)	2.11 (7.19)
TMT B	1.77 (0.77)	1.40 (0.83)	4.47 (12.52)
VFT	17.65 (4.91)	21 (5.92)	21.59 (5.53)
VLT free recall	5.47 (1.62)	5.76 (1.86)	6.24 (1.68)
VLT Disc Index	10.76 (0.97)	11.35 (1.06)	10.82 (1.59)
VLT delay recall	7.82 (2.6)	9.88 (1.80)	10.29 (1.90)
PEDL	23.41 (1.84)	26.53 (1.81)	27.24 (1.03)
Lawton	27.88 (2.47)	29.06 (1.75)	29.29 (0.99)

Test	BL - P	BL-3FU
NCSE	-7.18**	-7.30**
TMT A	1.72	-0.95
TMT B	1.78	-0.88
VFT	-2.48*	-3.66**
VLT free recall	-0.54	-2.02
VLT discrimination index	-2.79**	-.20
VLT delay recall	-4.58**	-5.01**
PEDL	-5.31**	-8.88**
Lawton	-3.77**	-3.43**

*p sig at <0.05
**p sig at <0.01

THANKS

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