

Can physical exercise with simultaneous cognitive challenge influence occupational performance in older people at risk of falls?

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Meaningful occupations are vital for well-being and social inclusion



Fall risk reduces participation in these activities



Motor-cognitive exercise may counteract this decline

To investigate the **feasibility** of a **high-intensity functional exercise program** with **simultaneous cognitive challenges** in **older people at risk of falls**, focusing on **occupational performance**.

Randomised controlled pilot trial

- **33** community-dwelling older people
- Moderate risk of falls (WFG algorithm)
- Mean age: 79 years
- Female: 61 %

- Two supervised group based interventions
- 2 times / week for 12 weeks

Intervention



HIFE+cog n=23

High Intensive Functional
Exercise+
Cognitive task

Control



HIFE n=10

High Intensive Functional
Exercise

COPM

Prioritized activities 79

Leisure (Skiing, dancing, walking outside) **48**

Self-care (Cykling, stair-walking) 19

Productivity (Gardening, home repairs) 12

Feasibility

- Recruitment
- Adherence
- Data collection
- Safety

Preliminary results

COPM

- Over half of the prioritised activities fell under the leisure category.

Baseline- value and within group differences

	N	HIFE+cog	N	HIFE
Performance 1-10				
<i>Baseline</i>	22	5.1 (1.6)	9	5.7 (1.4)
<i>12 weeks</i>	22	5.5 (2.3)	9	7.2 (1.5)
Satisfaction 1-10				
<i>Baseline</i>	22	5 (2.5)	9	5 (1.8)
<i>12 weeks</i>	22	5.5 (2.7)	9	7.1 (2.2)

Values are mean ± (SD)

Feasibility

- Both programs implemented as intended
- High attendance
- No major safety concerns reported

Conclusions



- COPM seem useful identifying meaningful activities and enhancing perceived performance and satisfaction in both groups.



- Findings offer critical guidance for optimizing interventions and trial design



Thank you for your attention!
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