



Feasibility of an occupation-based metacognitive strategy intervention in Parkinson's Disease

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Parkinson's Disease (PD)



Why Cognitive Orientation to daily Occupational Performance (CO-OP)?



Evidence from Other Populations

Established efficacy in other adult neurological populations.



Experience-Dependent Neuroplasticity

The brain's capacity to adapt and learn through experience.



Ecological Validity

Real-world application and relevance of the approach.



Self-Management

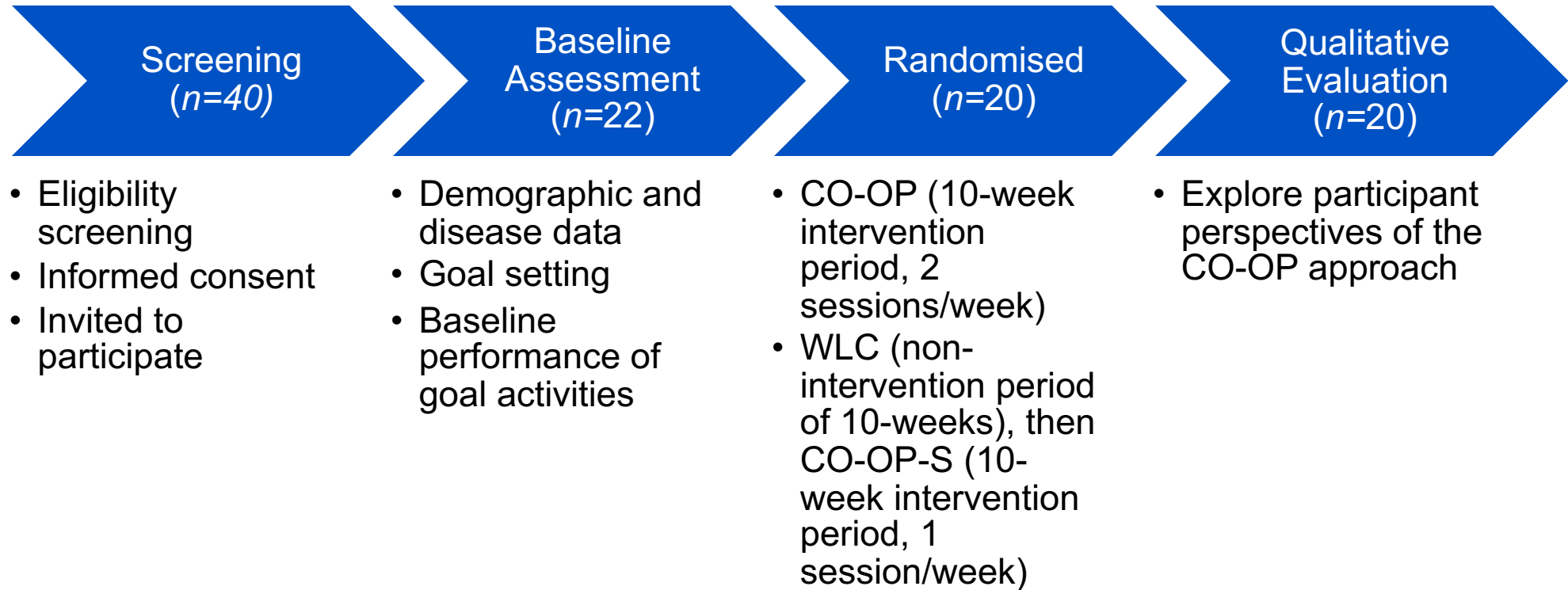
Empowerment and independence in managing one's condition.

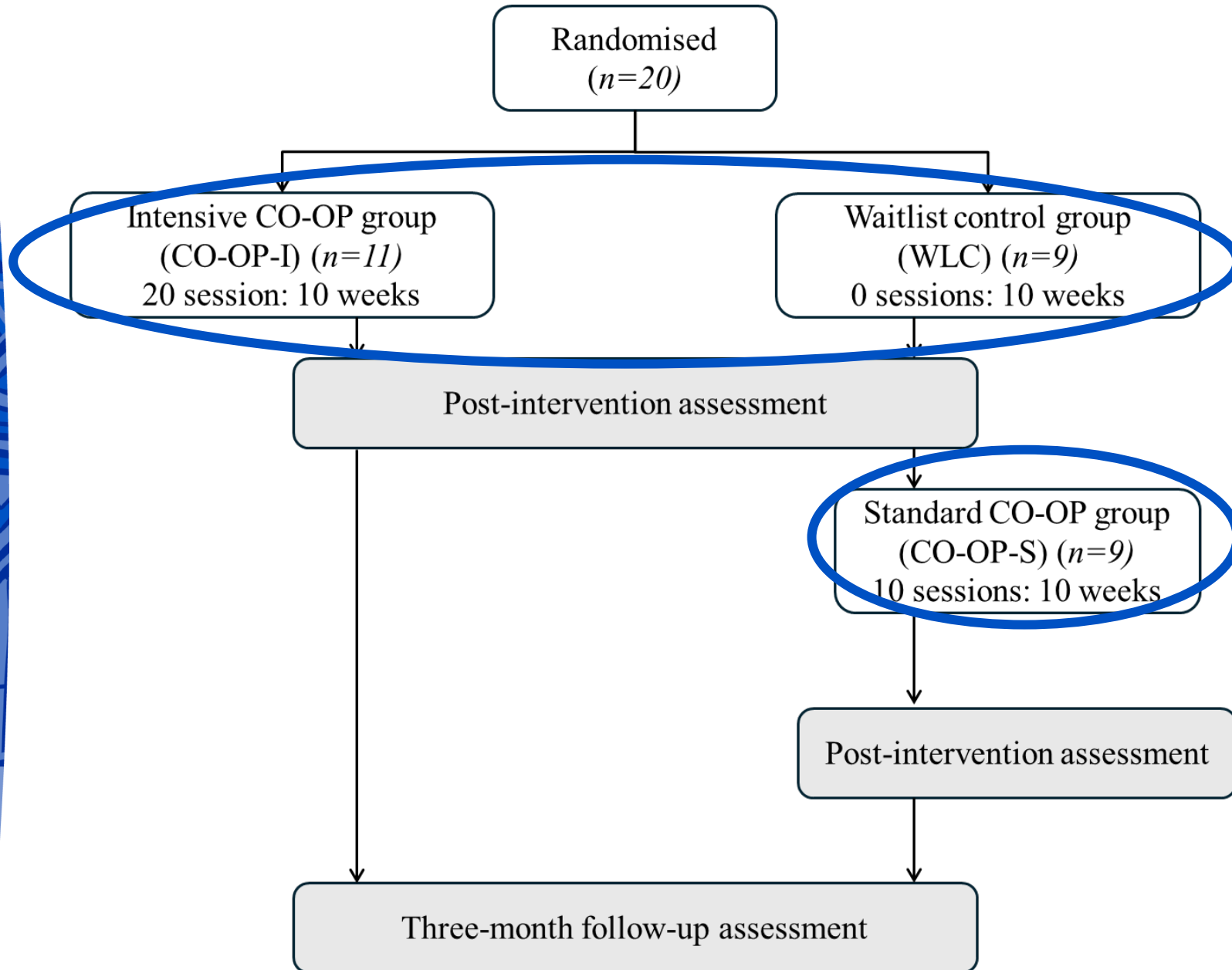


Theoretical Foundations

Cognitive and motor learning principles supporting the approach.

Study Procedure





Results - Participant Characteristics

Characteristics	Total (n=20)	CO-OP group (n=11)	WLC group (n=9)
Age in years (<i>SD</i>)	67.25 (7.96)	69.64 (7.67)	67.25 (7.96)
Sex male/female	9/11	4/7	5/4
Disease Duration in years (<i>SD</i>)	5.65 (3.62)	5.27 (2.49)	6.11 (4.78)
H&Y stage (<i>n</i>)			
1 'Unilateral involvement only'	2		2
1.5 'Unilateral and axial involvement'	5	4	1
2 'Bilateral involvement without impairment of balance'	3	1	2
2.5 'Mild bilateral disease with recovery on pull test'	3	2	1
3 'Mild to moderate bilateral disease; some postural instability; physically independent'	6	3	3
4 'Severe disability; still able to walk or stand unassisted'	1	1	
ACE-III (<i>SD</i>)	94.3 (5.58)	94.73 (6.10)	93.78 (5.19)
NEADL (<i>SD</i>)	18.8 (2.30)	18.38 (2.33)	19.29 (2.36)
AS (<i>SD</i>)	15.80 (4.07)	16.77 (3.493)	14.60 (4.41)
FSS (<i>SD</i>)	41.34 (8.85)	41.82 (7.80)	40.73 (9.99)
HADS Anxiety (<i>SD</i>)	7.80 (2.99)	9.38 (2.92)	5.98 (1.85)

RCT Feasibility Results

	CO-OP-I (n=11)	CO-OP-S (n=9)
Acceptability <i>M (SD)</i>		
Effort	3.04 (0.97)	3.29 (1.07)
Enjoyment	3.05 (0.92)	3.64 (0.48)
Demand % (<i>SD</i>)		
Homework completion	90.59% (0.15)	89.92% (0.30)
Prescribed sessions completion	82.27% (14.20)	97.77% (0.30)
Adaptation and Implementation		
Fidelity (Adherence)	5/5	5/5
Fidelity (Compliance)	5/5	5/5
General Fidelity	5/5	5/5

RCT Results: Trained Goals

Results	CO-OP-I (n=11)	WLC (n=9)	→ CO-OP-S (n=9)
COPM Performance			
Level of attainment <i>n</i> (%)	5 (45.5)	1 (11.1)	7 (77.7)
Mean change score	1.51	0.45	2.70
<i>p</i>	0.001*	0.59	0.0028*
COPM Satisfaction			
Level of attainment <i>n</i> (%)	8 (72.7)	0 (0)	7 (77.7)
Mean change score	2.55	0.04	3.29
<i>p</i>	0.0006*	0.96	0.0006*
PQRS			
Level of attainment <i>n</i> (%)	10 (90.9)	1 (11.1)	8 (88.8)
Mean change score	4.00	0.78	3.04
<i>p</i>	0.0001*	0.23	0.0001*
GAS			
Level of attainment <i>n</i> (%)	27 (80)	16 (60)	21 (77.7)
Mean change score	15.41	12.63	10.71
<i>p</i>	0.0003*	0.0137*	0.0558

RCT Results: Untrained Goals

Results	CO-OP-I (n=11)	WLC (n=9) →	CO-OP-S (n=9)
COPM Performance			
Level of attainment <i>n</i> (%)	6 (54.5)	1 (11.1)	4 (44.4)
Mean change score	2.46	0.11	1.56
<i>p</i>	0.059	0.90	0.2033
COPM Satisfaction			
Level of attainment <i>n</i> (%)	6 (54.5)	2 (22.2)	4 (44.4)
Mean change score	2.81	0.77	1.78
<i>p</i>	0.0296*	0.45	0.2122
PQRS			
Level of attainment <i>n</i> (%)	10 (90.9)	2 (22.2)	8 (88.8)
Mean change score	3.63	0.56	2.77
<i>p</i>	<0.0001*	0.46	0.0025*
GAS			
Level of attainment <i>n</i> (%)	7 (63.6)	3 (33.3)	5 (55.6)
Mean change score	13.64	6.66	2.23
<i>p</i>	0.0027*	0.178	0.7001

Discussion and Clinical Implications



Feasibility and acceptability of approach and methodology



Impact of goal setting and monitoring of performance



Importance of multiple modes of assessment



Intervention intensity