

Supplementary Appendix

The Effect of Multidisciplinary Rehabilitation on Brain Structure and Cognition in Huntington's disease: an Exploratory Study

Brain and Behaviour

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Supplementary Table S-1. Exercises used in the clinical exercise program throughout the study.

Exercise Mode	Exercises Utilised	Multi/Single Joint Exercises	Duration	Intensity	Progression
Active Warm Up	Walking (Treadmill) Cycling (Ergometer) Step ups	Not Applicable	3-5 minutes	40-60%	Increase warm up intensity Decrease recovery period
Aerobic Exercise	Walking (Treadmill) Cycling (Ergometer)	Not Applicable	8-10 minutes	60-80%	Increase intensity % (cadence/ resistance)
Resistance Exercise	Leg Press	Multi-joint	40 minutes	60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Knee Extension	Single-joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Knee Flexion	Single-joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Leg Abduction/ Adduction	Single-Joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Lat Pull Down	Multi-joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Supported Row	Multi-joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Chest Press	Multi-joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (kg)
	Abdominal Crunches	Single-Joint		60-80% 2-4 Sets 8-12 Reps	Increase training volume (additional weight)
Cool Down	Walking (Treadmill) Cycling (Ergometer)	Not Applicable	3-5 minutes	40-60%	Not Applicable

Reps, Repetitions, kg, kilograms

Supplementary Table S-2. Exercises used in the home-based exercise program throughout the study.

Exercise Mode	Exercises Utilised	Multi/Single Joint Exercise	Duration	Progression
Fine Motor	Laser tracing Button tying Speed/Accuracy trade-off	Not Applicable	15 minutes	Increase the difficulty of objects traced Increase the number and vary the size of the buttons tied Decrease shape size in the speed/accuracy trade-off tasks
Resistance Exercise	Knee Extension/Flexion	Single Joint	45 minutes	Increase resistance (Sanctbands)
	Wall Push	Multi-joint		Progress to push-ups on knees and then to full ROM push-ups
	Leg Abduction/Adduction	Single-joint		Increase resistance (Sanctbands)
	Row	Multi-joint		Increase resistance (Sanctbands)
	Abdominal Crunches	Single-joint		Increase time in eccentric and concentric contraction phases

ROM, range of motion

Supplementary Table S-3. Exercises used in occupational therapy sessions throughout the study.

Exercise Modality	Tasks Utilised	Progression
Daily Activities	Cooking Laundry Gardening Eating	Increase difficulty of cooking Perform laundry without cues Increased gardening to an independent state Improve the use and manipulation of eating utensils
Planning/Organisation	Utilisation of a diary (written or electronic) Planning social activities	Increase the number and difficulty of tasks throughout the day
Memory	Facial Recognition	Increase the number of faces to be recognised
Problem Solving	Sudoku Board Puzzles Boggle Mastermind	Increase the difficulty of the Sudoku game Increased the difficulty and size of puzzle Include time constraints Include time constraints