Task Specific Training

Produced by: Parkinson Disease Knowledge Translation Task Force

Fact Sheet

Physical therapists should implement task specific training to improve task-specific impairment level and functional outcomes for individuals with Parkinson disease.

Task-specific training should be implemented to address patient-centered goals as a part of a comprehensive PT treatment plan.

Types of individuals with PD who would most/least benefit from the intervention:

- Persons with idiopathic PD H&Y stage 1-3 without cognitive impairment. Task specific training for fall prevention was not effective for those with freezing of gait or cognitive impairment.
- "Task-specific training has not been well-studied in individuals with cognitive impairment".

PTs SHOULD include:

Type of Task Specific Training	What Does it Improve?	Frequency, Intensity, Time, Type – Volume and Progression (FITT-VP)	Tools for Assessment
Upper Extremity	UE task specific training to improve pinch grip strength and dexterity. MAY include to improve sensation and goal attainment	Frequency: 2-5 days a week for 4 weeks. Intensity: High intensity Time: 15-45 min sessions Type: Delivered in a 1:1 manner in clinic or home-based. Volume: 6-12 total hours	9 Hole Peg Test, Purdue Peg Board Test,
Turning	Task specific training for turning to improve the ability to turn 180 degrees. Improvement in turning when body structure and function impairments such as strength of hip abductors and extensors, and knee extensors were addressed.	Frequency: 2x per week for 6 weeks Intensity: Unknown Time: 30 minutes, 10 of which are devoted to turning practice Type: Delivered in a 1:1 manner in clinic. Volume: 120 minutes total	Timed Up and Go (TUG), Freezing of Gait questionnaire, and Berg Balance Scale

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PTs MAY include:

Type of Task Specific Training	What Does it Improve?	Frequency, Intensity, Time, Type – Volume and Progression (FITT-VP)	Tools for Assessment
Dual Task	Dual task training due to mixed evidence to improve gait speed, dual-task gait speed, FOG, and balance. Some high level studies showed that both dual and single task training improved dual-task gait speed while others showed dual-task training to improve it more.	Unknown	Dual-task gait speed, mini-BESTest
Fall Prevention	Task specific training to decrease falls but progressive resistive training was more effective in one high quality study. Evidence was mixed.	Frequency: 1x/week for 8 weeks to 6 months. Intensity: unknown Time: 1-2 hours/session Type: Task Specific Training Volume = 16-18 total hours. Progression: Resistance training was progressed based on the modified perceived exertion scale (PRE >5). The task specific movement strategy group did not progress activities.	Modified Perceived Exertion Scale, Fall Rate, UPDRS scale motor and ADL sections, gait velocity, TUG, Parkinson Disease Questionnaire-39, number of injurious falls, time to first fall.
Bladder Training	Task-specific training for bladder management to improve voiding and decrease incontinence and interference with daily life. Did not improve QoL or urgency.	Unknown.	Frequency of voiding, Void volume, Number incontinence episodes

Considerations related to safety:

- In fall prevention studies task specific training may increase falls in those with higher disease burden, H&Y 4 stage.

Considerations for practice setting:

- Fall Prevention: Interventions conducted with a physical therapist demonstrated fall reduction while those performed by the participant in their home with prompts and encouragement did not.
- Dropout tends to occur when the activity is uninteresting or not salient to the individual receiving the training.
- So long as dual-task training does not take away from necessary intensity or dosage, consider as an “add-on” for other interventions more strongly supporter rather than dose as a lone intervention.

Recommended measures to assess change:

- Consider measures based on the ANPT Core Measures or the PD EDGE that measure the constructs therapy is targeting.

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