Evidence of disease severity, cognitive and physical outcomes of dance interventions for persons with Parkinson's Disease: a systematic review and meta-analysis

Sophia Rasheeqa Ismail 1st , Shaun Wen Huey Lee 2 , Dafna Merom 3 , Puteri Sofia Nadira Megat
Kamaruddin ¹ , Min San Chong ⁴ , Terence Ong ⁴ , Nai Ming Lai ^{2,5}

¹ Institute for Medical Research, National Institutes of Health, Ministry of Health, Malaysia

² School of Pharmacy, Monash University Malaysia, Malaysia

³ University of Western Sydney, Australia

⁴ University of Malaya Medical Centre, Malaysia.

⁵ School of Medicine, Faculty of Health and Medical Sciences, Taylor's University Malaysia

Additional File 1

Key references to tools used in the evaluation of major outcomes in the review

Outcome	Tool	Citation of key reference
Disease severity	MDS- Unified	Goetz CG, Tilley BC, Shaftman SR, Stebbins GT, Fahn S,
(motor,	Parkinson's Disease	Martinez-Martin P, Poewe W, Sampaio C, Stern MB,
behaviour,	Rating Scale (MDS-	Dodel R et al: Movement Disorder Society-sponsored
mentation, mood,	UPDRS)	revision of the Unified Parkinson's Disease Rating
activities of daily	,	Scale (MDS-UPDRS): scale presentation and
living)		clinimetric testing results. Movement disorders:
		official journal of the Movement Disorder Society 2008,
		23 (15):2129-2170.
Balance	Mini Best Test	King L, Horak F: On the Mini-BESTest: Scoring and the
	Willin Best Test	Reporting of Total Scores. Physical Therapy 2013,
		93(4):571-575.
	Berg's Balance	Berg K, Wood-Dauphinee S, Williams JI: The Balance
	Scale	Scale: reliability assessment with elderly residents
		and patients with an acute stroke. Scandinavian
		journal of rehabilitation medicine 1995, 27 (1):27-36.
	Spinal-mouse	S Keller, AF Mannion, Grob D: Reliability of a new
	inclination score	measuring device ("spinalmouse") in recording the
		sagittal profile of the back. Eur Spine J 2000, 9(4):283-
		313.
	Activities-specific	Powell LE, Myers AM: The Activities-specific Balance
	Balance Confidence	Confidence (ABC) Scale. The journals of gerontology
	Scale (ABC)	Series A, Biological sciences and medical sciences 1995,
		50 a(1):M28-34.
Gait and mobility	Freezing of Gait	Giladi N, Tal J, Azulay T, Rascol O, Brooks DJ, Melamed
	Questionnaire	E, Oertel W, Poewe WH, Stocchi F, Tolosa E: Validation
		of the freezing of gait questionnaire in patients with
		Parkinson's disease. Movement disorders : official
		journal of the Movement Disorder Society 2009,
		24 (5):655-661.
	Six-minute Walk	Garber CE, Friedman JH: Effects of fatigue on physical
	Test	activity and function in patients with Parkinson's
	1000	disease. Neurology 2003, 60 (7):1119-1124.
	Standing-start 180°	Stack E, Ashburn A: Dysfunctional turning in
	turn test	Parkinson's disease. Disability and Rehabilitation 2008,
	turritest	30 (16):1222-1229.
	Time-up-and-go	Podsiadlo D, Richardson S: The timed "Up & Go": a test
	(TUG) test	of basic functional mobility for frail elderly persons.
		Journal of the American Geriatrics Society 1991,
	E' - T' - C' - C'	39 (2):142-148.
	Five Times Sit-to-	Duncan RP, Leddy AL, Earhart GM: Five times sit-to-
	Stand Test	stand test performance in Parkinson's disease.
		Archives of physical medicine and rehabilitation 2011,
		92 (9):1431-1436.
	Sit-and-Reach Test	Bozic PR, Pazin NR, Berjan BB, Planic NM, Cuk ID:
		Evaluation of the field tests of flexibility of the lower
	1	extremity: reliability and the concurrent and factorial

		validity. Journal of strength and conditioning research 2010, 24 (9):2523-2531.
	Back Scratch Test	Roberta ER, Jones CJ: Development and Validation of a Functional Fitness Test for Community-Residing Older Adults . <i>Journal of Aging and Physical Activity</i> 1999, 7 (2):129-161.
	Nine-hole peg test	Earhart GM, Cavanaugh JT, Ellis T, Ford MP, Foreman KB, Dibble L: The 9-hole PEG test of upper extremity function: average values, test-retest reliability, and factors contributing to performance in people with Parkinson disease . <i>Journal of neurologic physical therapy: JNPT</i> 2011, 35 (4):157-163.
	Purdue pegboard	Desrosiers J, Hébert R, Bravo G, Dutil E: The Purdue Pegboard Test: normative data for people aged 60 and over . <i>Disabil Rehabil</i> 1995, 17 (5):217-224.
Risk of fall	Falls questionnaire (Canadian Community Health Survey (CCHS)— Healthy Aging (May, 2010) adapted to focus on the past 3 months.	https://www.statcan.gc.ca/eng/statistical- programs/document/5146_D1_T1_V1-eng.pdf
Cognitive/Mood outcomes	Montreal Cognitive Assessment (MoCA)	Nazem S, Siderowf AD, Duda JE, Have TT, Colcher A, Horn SS, Moberg PJ, Wilkinson JR, Hurtig HI, Stern MB et al: Montreal cognitive assessment performance in patients with Parkinson's disease with "normal" global cognition according to mini-mental state examination score. Journal of the American Geriatrics Society 2009, 57(2):304-308.
	Depression: Beck's Depression Inventory	Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J: An inventory for measuring depression . <i>Archives of general psychiatry</i> 1961, 4 :561-571.
	Apathy: Apathy Scale	Starkstein SE, Mayberg HS, Preziosi TJ, Andrezejewski P, Leiguarda R, Robinson RG: Reliability, validity, and clinical correlates of apathy in Parkinson's disease . <i>The Journal of neuropsychiatry and clinical neurosciences</i> 1992, 4 (2):134-139.
	Fatigue: Krupp Fatigue Severity Scale	Alves G, Wentzel-Larsen T, Larsen JP: Is fatigue an independent and persistent symptom in patients with Parkinson disease? <i>Neurology</i> 2004, 63 (10):1908-1911.
Participation in activities of daily living	Activity Card Sort	Baum C, Edwards D: Activity Card Sort (ACS) . Bethesda, MD: AOTA Press 2008.
Quality of life	Parkinson's Disease Questionnaire - 39 (PDQ-39)	Peto V, Jenkinson C, Fitzpatrick R: PDQ-39: a review of the development, validation and application of a Parkinson's disease quality of life questionnaire and its associated measures. Journal of neurology 1998, 245 Suppl 1:S10-14.

Brief	Büssing A, Fischer J, Haller A, Heusser P, Ostermann T
Multidimensional	Matthiessen PF: Validation of the brief
Life Satisfaction	multidimensional life satisfaction scale in patients
Scale (BMLSS)	with chronic diseases. Eur J Med Res 2009, 14(4):171-
	177.