Supplementary Content

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Searching strategy

[(Parkinson + Disease) OR (Idiopathic + Parkinson's + Disease) OR (Lewy + Body + Parkinson's + Disease) OR (Parkinson's + Disease, Idiopathic) OR (Parkinson's + Disease, Lewy + Body) OR (Parkinson + Disease, Idiopathic) OR (Parkinson's + Disease) OR (Idiopathic + Parkinson + Disease) OR (Lewy + Body + Parkinson + Disease) OR (Primary + Parkinsonism) OR (Parkinsonism, Primary) OR (Paralysis + Agitans)] AND [(Exercise*) OR (Physical activity) OR (aerobic*) OR (aquatic*) OR (water + based + exercise) OR (water + based + training) OR (swimming) OR (boxing) OR (cycling) OR (bike*) OR (bicycle*) OR (dancing) (virtual + reality + training) OR (exergame*) OR (functional + training) OR (functional + fitness) OR (Nordic + walking) OR (walking) OR (treadmill*) OR (Qigong) OR (strength + training) OR (resistance + training) OR (resistance + exercise) OR (stretching) OR (tai + chi) OR (yoga)] AND [(randomized + controlled + trial*) OR (controlled + clinical + trial*) OR (randomized) OR (placebo) OR (drug + therapy) OR (randomly) OR (trial*) OR (group*) NOT (animals)].

Figure S1. PRISMA flowchart



*PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analysis; RCT, randomized controlled trial.



Figure S2. The map of network meta-analysis for "ON state" UPDRS-motor scores



Figure S3. The results of pairwise comparisons for "OFF state" UPDRS-motor

scores

Figure S4. Funnel plots for each outcome: UPDRS-motor, balance, mobility, and manual dexterity



a. UPDRS - motor

b. Balance



c. Mobility



d. Manual dexterity





Figure S5. Cumulative ranking probability plots for UPDRS-motor scores

	No. (%) of trials	No. of patients (N)	Mean age (y)	Mean PD year (y)	Mean H&Y stage
Туре					
Aquatic	14 (6.0%)	187	67	6.9	2.5
Boxing	2 (0.9%)	37	66	4.5	2.3
Cycling	5 (2.1%)	140	65	6.7	2.3
Dancing	19 (8.1%)	331	67	6.9	2.2
Exergaming	12 (5.1%)	224	68	6.8	2.1
Functional	36 (15.4%)	709	66	6.5	2.3
Multimodal	15 (6.4%)	337	68	6.8	2.1
Nordic walking	6 (2.6%)	86	66	5.3	2.4
Qigong	6 (2.6%)	138	65	7.9	2.3
Strength	17 (7.3%)	376	66	6.9	2.2
Stretching	2 (0.9%)	130	69	6.5	2.2
Tai chi	12 (5.1%)	237	66	6.0	2.3
Ordinary walking	19 (8.1%)	393	67	5.2	2.3
Yoga	9 (3.9%)	163	69	6.4	2.2
Control					
Active control	13 (5.6%)	322	68	7.1	2.2
True control	45 (19.2%)	821	68	5.9	2.3
Total	234 (100%)	4631	67	7.1	2.3

Table S1. Overall characteristics on exercise modes

Characteristics	No. (%) of trials $(N = 114)$
Duration of intervention by weeks	
≤4	16(14.0)
$5 \sim 8$	32(28.1)
$9 \sim 12$	40(35.1)
> 12	20(17.5)
Incomplete data	6(5.3)
Duration of intervention by hours	
< 15	36 (31.6)
$16 \sim 30$	46 (40.4)
31 ~ 45	12 (10.5)
$46 \sim 60$	9 (7.9)
> 60	7 (6.1)
Incomplete data	4 (3.5)
Number of total intervention sessions	
< 15	23 (20.2)
$15 \sim 29$	53 (46.5)
$30 \sim 44$	17 (14.9)
45 ~ 59	8 (7.0)
> 60	7 (6.1)
Incomplete data	6 (5.3)
Number of sessions per week	
1	9(7.9)
2	49(43.0)
3	29(25.4)
4	5(4.39)
≥ 5	13(14.0)
Incomplete data	6(5.3)
Session duration (minutes)	1 (0.0)
≤ 15	1(0.9)
$10 \sim 30$	9 (7.9) 22 (10.2)
$51 \sim 43$	22 (19.3)
$40 \sim 00$	07 (58.8)
> OU Incomplete dete	11 (9.6)
incomplete data	4 (3.5)

Table S2. Intervention characteristics of included studies

Note. 5 of the 109 included studies used different intervention duration on groups, so a total of 114 trials.

Author	Year	Title	Source	DOI
A 1	2015	Comparison of strength training, aerobic training, and additional physical therapy	Clinical Interventions in	10.2147/CIA.S6
Alessandro	2013	as supplementary treatments for Parkinson's disease: pilot study	Aging	8779
Allen	2010	The effects of an exercise program on fall risk factors in people with Parkinson's disease: A randomized controlled trial	Movement Disorders	10.1002/mds.230 82
Allon	2017	An interactive videogame for arm and hand exercise in people with Parkinson's	Parkinsonism & Related	10.1016/j.parkrel
Alleli	2017	disease: A randomized controlled trial	Disorders	dis.2017.05.011
Amono	2012	The effect of Tai Chi exercise on gait initiation and gait performance in persons	Parkinsonism & Related	10.1016/j.parkrel
Amano	2015	with Parkinson's disease	Disorders	dis.2013.06.007
Analin	2015	Intensive cycle ergometer training improves gait speed and endurance in patients	Restorative Neurology	10.3233/RNN-
Alcolli	2013	with Parkinson's disease: A comparison with treadmill training	and Neuroscience	150506
Ashburn	2006	A randomized controlled trial of a home-based exercise program to reduce the risk of falling among people with Parkinson's disease	Journal of Neurology, Neurosurgery & Psychiatry	10.1136/jnnp.20 06.099333
Bang	2017	Effects of an intensive Nordic walking intervention on the balance function and walking ability of individuals with Parkinson's disease: a randomized controlled pilot trial	Aging Clinical and Experimental Research	10.1007/s40520- 016-0648-9
Darbalha	2010	Effects of Low-Volume Resistance Training on Muscle Strength and Functionality	International Journal of	NI/A
Darbanio	2019	of People with Parkinson's Disease	Exercise Science	1N/A
Dogo	2016	Yoga Versus Resistance Training in Mild to Moderate Severity Parkinson's	Journal of Yoga &	10.4172/2157-
Dega	2016	Disease: A 12-Week Pilot Study	Physical Therapy	7595.1000222
Burini	2006	A randomised controlled cross-over trial of aerobic training A versus Qigong in advanced Parkinson's disease	Europa Medicophysica	N/A
Cakit	2007	The effects of incremental speed-dependent treadmill training on postural	Clinical Rehabilitation	10.1177/026921
CaNIt	2007	instability and fear of falling in Parkinson's disease		5507077269
Canning	2012	Home-based treadmill training for individuals with Parkinson's disease: a	Clinical Rehabilitation	10.1177/026921
Canning	2012	randomized controlled pilot trial	Clinical Kenabilitation	5511432652

Chamin	2021	Yoga Meditation Enhances Proprioception and Balance in Individuals Diagnosed	Perceptual and Motor	10.1177/003151
enerup	2021	with Parkinson's Disease	Skills	2520945085
Choung	2018	Effects of yoga on oxidative stress, motor function, and non-motor symptoms in	Pilot and Feasibility	10.1186/s40814-
Cheung	2018	Parkinson's disease: a pilot randomized controlled trial	Studies	018-0355-8
Chai	2016	Effects of therapeutic Tai chi on functional fitness and activities of daily living in	Journal of Exercise	10.12965/jer.163
CIIOI	2010	patients with Parkinson disease	Rehabilitation	2654.327
Chai	2012	Therementic Effects of Tai Chi in Detients with Derkinson's Disease	ISDN Nourology	10.1155/2013/54
CIIOI	2015	Therapeutic Effects of Tai Chi in Patients with Parkinson's Disease	ISKIN INCUIDIOgy	8240
Calarava	2012	Effect of Yoga on Motor Function in People with Parkinson's Disease: A	Journal of Yoga &	10.4172/2157-
Colgrove	2012	Randomized, Controlled Pilot Study	Physical Therapy	7595.1000112
Camba	2012	Community-based group exercise for persons with Parkinson disease: A	Nouro Dahahilitatian	10.3233/NRE-
Combs	2013	randomized controlled trial	Neuro Renadintation	130828
Carrage	2012	A two-year randomized controlled trial of progressive resistance exercise for	Movement Disorders	10.1002/mds.253
Corcos	2013	Parkinson's disease: Progressive Resistance Exercise in PD		80
Cuquai	2015	Effects of a Nordic Walking program on motor and non-motor symptoms,	Nouro Dobabilitation	10.3233/NRE-
Cugusi	2013	functional performance and body composition in patients with Parkinson's disease	Neuro Kenaomitation	151257
Dechtinour	2015	Effect of Exercise on Motor and Nonmotor Symptoms of Parkinson's Disease	Parkingon's Disago	10.1155/2015/58
Dashupour	2013	Effect of Excluse on Wolfor and Nonmotor Symptoms of Farkinson's Disease	I arkinson s Disease	6378
		Everyise and Medication Effects on Persons with Parkinson Disease Across the	Journal of Neurologic	10.1097/NPT.00
Dibble	2015	Domains of Disability: A Pandomized Clinical Trial	Dhysical Therapy	000000000008
		Domains of Disability. A Randonized Chinear That	Thysical Therapy	6
Duncan	2012	Randomized Controlled Trial of Community-Based Dancing to Modify Disease	Neurorehabilitation and	10.1177/154596
Duilean	2012	Progression in Parkinson Disease	Neural Repair	8311421614
		Are the Effects of Community-Based Dance on Parkinson Disease Severity,	The Journal of Alternative	10.1080/acm 201
Duncan	2014	Balance, and Functional Mobility Reduced with Time? A 2-Year Prospective Pilot	and Complementary	2 0774
		Study	Medicine	2.0774
Ebershach	2010	Comparing exercise in Parkinson's disease-the Berlin BIG Study: Exercise in	Movement Disorders	10.1002/mds.232
LUCISUACII	2010	Parkinson's Disease		12

Fernández- González	2019	Leap motion-controlled video game-based therapy for upper limb rehabilitation in patients with Parkinson's disease: a feasibility study	Journal of NeuroEngineering and Rehabilitation	10.1186/s12984- 019-0593-x
Ferraz	2018	The Effects of Functional Training, Bicycle Exercise, and Exergaming on Walking Capacity of Elderly Patients with Parkinson Disease: A Pilot Randomized Controlled Single-blinded Trial	Archives of Physical Medicine and Rehabilitation	10.1016/j.apmr.2 017.12.014
Fisher	2008	The Effect of Exercise Training in Improving Motor Performance and Corticomotor Excitability in People with Early Parkinson's Disease	Archives of Physical Medicine and Rehabilitation	10.1016/j.apmr.2 008.01.013
Franzoni	2018	A 9-Week Nordic and Free Walking Improve Postural Balance in Parkinson's Disease	Sports Medicine International Open	10.1055/s-0043- 124757
Frazzitta	2012	Effectiveness of Intensive Inpatient Rehabilitation Treatment on Disease Progression in Parkinsonian Patients: A Randomized Controlled Trial With 1-Year Follow-up	Neurorehabilitation and Neural Repair	10.1177/154596 8311416990
Frazzitta	2015	Intensive Rehabilitation Treatment in Early Parkinson's Disease: A Randomized Pilot Study With a 2-Year Follow-up	Neurorehabilitation and Neural Repair	10.1177/154596 8314542981
Frisaldi	2021	Effectiveness of a dance-physiotherapy combined intervention in Parkinson's disease: a randomized controlled pilot trial	Neurological Sciences	10.1007/s10072- 021-05171-9
Gandolfi	2017	Virtual Reality Telerehabilitation for Postural Instability in Parkinson's Disease: A Multicenter, Single-Blind, Randomized, Controlled Trial	BioMed Research International	10.1155/2017/79 62826
Gao	2014	Effects of Tai Chi on balance and fall prevention in Parkinson's disease: a randomized controlled trial	Clinical Rehabilitation	10.1177/026921 5514521044
Goodwin	2011	An exercise intervention to prevent falls in people with Parkinson's disease: a pragmatic randomised controlled trial	Journal of Neurology, Neurosurgery & Psychiatry	10.1136/jnnp- 2011-300919
Hackney	2008	Tai Chi improves balance and mobility in people with Parkinson disease	Gait & Posture	10.1016/j.gaitpos t.2008.02.005
Hackney	2010	Effects of Dance on Gait and Balance in Parkinson's Disease: A Comparison of Partnered and Non-partnered Dance Movement	Neurorehabilitation and Neural Repair	10.1177/154596 8309353329

Haalman	2007	Effects of Tango on Functional Mobility in Parkinson's Disease: A Preliminary	Journal of Neurologic	10.1097/NPT.0b
наскпеу		Study	Physical Therapy	013e31815ce78b
TT 1	2000	Effects of dance on movement control in Parkinson's disease: A comparison of	Journal of Rehabilitation	10.2340/165019
паскнеу	2009	Argentine tango and American ballroom	Medicine	77-0362
Halgamid	2020	Maximal strength training in patients with Parkinson's disease: impact on efferent	Journal of Applied	10.1152/japplph
neigerud	2020	neural drive, force-generating capacity, and functional performance	Physiology	ysiol.00208.2020
		Effect of home-based Tai Chi, Yoga or conventional balance exercise on	Hong Vong	10 11/2/\$10127
Khuzema	2020	functional balance and mobility among persons with idiopathic Parkinson's	Physiothereny Journal	02520500055
		disease: An experimental study	Physiotherapy Journal	02320300033
Vumkal	2017	A randomized controlled feasibility trial exploring partnered ballroom dancing for	Clinical Dahahilitation	10.1177/026921
KUIIKEI	2017	people with Parkinson's disease	Chinical Kenaolination	5517694930
		Effects of Mindfulness Yoga vs Stretching and Resistance Training Exercises on		10.1001/jamaneu
Kwok	2019	Anxiety and Depression for People with Parkinson Disease: A Randomized	JAMA Neurology	rol 2010 0534
		Clinical Trial		101.2019.0334
Langer	2021	A randomised controlled trial on effectiveness and feasibility of sport climbing in	nni Parkinson's Disease	10.1038/s41531-
Langer		Parkinson's disease	npj i arkinson s Disease	021-00193-8
Leal	2019	Low-volume resistance training improves the functional capacity of older	Geriatrics & Gerontology	10.1111/ggi.136
Lear	2017	individuals with Parkinson's disease	International	82
Lee	2018	Turo (Qi Dance) Program for Parkinson's Disease Patients: Randomized, Assessor	EXDI ODE	10.1016/j.explor
Lee		Blind, Waiting-List Control, Partial Crossover Study	LAILORE	e.2017.11.002
Lee	2015	Effect of virtual reality dance exercise on the balance, activities of daily living,	Journal of Physical	10.1589/jpts.27.1
Lee	2013	and depressive disorder status of Parkinson's disease patients	Therapy Science	45
Ti	2012	Tai Chi and Postural Stability in Patients with Parkinson's Disease	New England Journal of	10.1056/NEJMo
	2012	Tai Chi and Tostural Stability in Tatents with Tarkinson's Disease	Medicine	a1107911
Lino	2015	Virtual Reality-Based Training to Improve Obstacle-Crossing Performance and	Neurorehabilitation and	10.1177/154596
Liao	2013	Dynamic Balance in Patients with Parkinson's Disease	Neural Repair	8314562111
		Resistance training reduces depressive symptoms in elderly people with Parkinson	Scandinavian Journal of	10.1111/sms.125
Lima	2019	disease: A controlled randomized study	Medicine & Science in	28
			Sports	20

Liu	2016	Effects of Health Qigong Exercises on Relieving Symptoms of Parkinson's Disease	Evidence-Based Complementary and	10.1155/2016/59 35782
			Alternative Medicine	10,1000/000000
McKee	2013	The Effects of Adapted Tango on Spatial Cognition and Disease Severity in	Journal of Motor	10.1080/002228
		Parkinson's Disease	Generalizer enterry	93.2013.834288
Michels	2018	disease	Therenies in Medicine	10.1010/j.cum.2
			Archives of Physical	018.07.003
Minoi	2000	Treadmill training with hady weight support. Its offeat on Darkingon's disease	Modicino and	10.1053/apmr.20
Wilyai	2000	Treadmin training with body weight support. Its effect on Farkinson's disease	Pohobilitation	00.4439
			Archives of Physical	
Minoi	2002	Long-term effect of body weight-supported treadmill training in Parkinson's disease: A randomized controlled trial	Modicino and	10.1053/apmr.20
Wilyai	2002		Republication	02.34603
			Scondinguign Journal of	
Monteiro	2017	Effects of Nordic walking training on functional parameters in Parkinson's disease: a randomized controlled clinical trial	Medicine & Science in	10.1111/sms.126
Wonteno			Sports	52
			Complementary	
Moon	2020	Can Qigong improve non-motor symptoms in people with Parkinson's disease - A	Therapies in Clinical	10.1016/j.ctcp.20
WIOOII	2020	pilot randomized controlled trial?	Practice	20.101169
		A Randomized Controlled Trial to Reduce Falls in People With Parkinson's	Neurorebabilitation and	10 1177/15/1596
Morris	2015	Disease	Neural Repair	8314565511
		A home program of strength training, movement strategy training and education		10 1016/i inhys 2
Morris	2017	did not prevent falls in people with Parkinson's disease: a randomised trial	Journal of Physiotherapy	017 02 015
		Voga Improves Balance and Low-Back Pain, but Not Anxiety, in People with	International Journal of	10 17761/2020-
Myers	2020	Parkinson's Disease	Yoga Therany	D-18-00028
				10 1249/MSS 00
Nadeau	2014	Effects of 24 wk of Treadmill Training on Gait Performance in Parkinson's	Medicine & Science in	000000000014
1 (advau	2011	Disease	Sports & Exercise	4
			1	

Ni	2016	Controlled pilot study of the effects of power yoga in Parkinson's disease	Complementary Therapies in Medicine	10.1016/j.ctim.2 016.01.007
Ni	2016	Comparative Effect of Power Training and High-Speed Yoga on Motor Function in Older Patients with Parkinson Disease	Archives of Physical Medicine and Rehabilitation	10.1016/j.apmr.2 015.10.095
Passos- Monteiro	2020	Nordic Walking and Free Walking Improve the Quality of Life, Cognitive Function, and Depressive Symptoms in Individuals with Parkinson's Disease: A Randomized Clinical Trial	Journal of Functional Morphology and Kinesiology	10.3390/jfmk504 0082
Paul	2014	Leg muscle power is enhanced by training in people with Parkinson's disease: a randomized controlled trial	Clinical Rehabilitation	10.1177/026921 5513507462
Picelli	2016	Effects of treadmill training on cognitive and motor features of patients with mild to moderate Parkinson's disease: a pilot, single-blind, randomized controlled trial	Functional Neurology	10.11138/FNeur/ 2016.31.1.025
Poier	2019	A Randomized Controlled Trial to Investigate the Impact of Tango Argentina versus Tai Chi on Quality of Life in Patients with Parkinson Disease: A Short Report	Complementary Medicine Research	10.1159/000500 070
Pompeu	2012	Effect of Nintendo Wii TM -based motor and cognitive training on activities of daily living in patients with Parkinson's disease: A randomised clinical trial	Physiotherapy	10.1016/j.physio. 2012.06.004
Protas	2005	Gait and step training to reduce falls in Parkinson's disease	Neuro Rehabilitation	10.3233/NRE- 2005-20305
Qutubuddin	2013	Parkinson's Disease and Forced Exercise: A Preliminary Study	Rehabilitation Research and Practice	10.1155/2013/37 5267
Ribas	2017	Effectiveness of exergaming in improving functional balance, fatigue and quality of life in Parkinson's disease: A pilot randomized controlled trial	Parkinsonism & Related Disorders	10.1016/j.parkrel dis.2017.02.006
Rios Romenets	2015	Tango for treatment of motor and non-motor manifestations in Parkinson's disease: A randomized control study	Complementary Therapies in Medicine	10.1016/j.ctim.2 015.01.015
Rocha	2018	Dance therapy for Parkinson's disease: A randomised feasibility trial	International Journal of Therapy and Rehabilitation	10.12968/ijtr.201 8.25.2.64

Ryan	2020	Interval, Active-Assisted Cycling Improves Motor Function but Does Not Alter Balance in Parkinson's Disease	Dissertation	N/A
Sage	2009	Symptom and gait changes after sensory attention focused exercise vs aerobic training in Parkinson's disease	Movement Disorders	10.1002/mds.224 69
Sangarapillai	2021	Boxing vs Sensory Exercise for Parkinson's Disease: A Double-Blinded Randomized Controlled Trial	Neurorehabilitation and Neural Repair	10.1177/154596 83211023197
Schenkman	2012	Exercise for People in Early- or Mid- Stage Parkinson Disease: A 16-Month Randomized Controlled Trial	Physical Therapy	10.2522/ptj.2011 0472
Schenkman	2018	Effect of High-Intensity Treadmill Exercise on Motor Symptoms in Patients With De Novo Parkinson Disease: A Phase 2 Randomized Clinical Trial	JAMA Neurology	10.1001/jamaneu rol.2017.3517
Schilling	2010	Effects of Moderate-Volume, High-Load Lower-Body Resistance Training on Strength and Function in Persons with Parkinson's Disease: A Pilot Study	Parkinson's Disease	10.4061/2010/82 4734
Schlenstedt	2015	Resistance versus Balance Training to Improve Postural Control in Parkinson's Disease: A Randomized Rater Blinded Controlled Study	PLOS ONE	10.1371/journal. pone.0140584
Schmitz- Hübsch	2006	Qigong exercise for the symptoms of Parkinson's disease: A randomized, controlled pilot study: Qigong in PD	Movement Disorders	10.1002/mds.207 05
Shanahan	2017	Dancing for Parkinson Disease: A Randomized Trial of Irish Set Dancing Compared with Usual Care	Archives of Physical Medicine and Rehabilitation	10.1016/j.apmr.2 017.02.017
Shen	2014	Balance and Gait Training with Augmented Feedback Improves Balance Confidence in People with Parkinson's Disease: A Randomized Controlled Trial	Neurorehabilitation and Neural Repair	10.1177/154596 8313517752
Shih	2016	Effects of a balance-based exergaming intervention using the Kinect sensor on posture stability in individuals with Parkinson's disease: a single-blinded randomized controlled trial	Journal of Neuro Engineering and Rehabilitation	10.1186/s12984- 016-0185-y
Shinichi Amano	2013	Tai Chi Exercise to Improve Non-Motor Symptoms of Parkinson's Disease	Journal of Yoga & Physical Therapy	10.4172/2157- 7595.1000137
Shulman	2013	Randomized Clinical Trial of 3 Types of Physical Exercise for Patients with Parkinson Disease	JAMA Neurology	10.1001/jamaneu rol.2013.646

Silva-Batista	2016	Resistance Training with Instability for Patients with Parkinson's Disease	Medicine & Science in Sports & Exercise	10.1249/MSS.00 000000000094 5
Silva-Batista	2017	Instability Resistance Training Improves Neuromuscular Outcome in Parkinson's Disease	Medicine & Science in Sports & Exercise	10.1249/MSS.00 0000000000115 9
Soke	2021	Task-oriented circuit training combined with aerobic training improves motor performance and balance in people with Parkinson's Disease	Acta Neurological Belgica	10.1007/s13760- 019-01247-8
Solla	2019	Sardinian Folk Dance for Individuals with Parkinson's Disease: A Randomized Controlled Pilot Trial	The Journal of Alternative and Complementary Medicine	10.1089/acm.201 8.0413
Song	2018	Home-based step training using videogame technology in people with Parkinson's disease: a single-blinded randomised controlled trial	Clinical Rehabilitation	10.1177/026921 5517721593
Szefler-Derela	2020	Effectiveness of 6-Week Nordic Walking Training on Functional Performance, Gait Quality, and Quality of Life in Parkinson's Disease	Medicina	10.3390/medicin a56070356
Tollár	2018	A High-Intensity Multicomponent Agility Intervention Improves Parkinson Patients' Clinical and Motor Symptoms	Archives of Physical Medicine and Rehabilitation	10.1016/j.apmr.2 018.05.007
van der Kolk	2019	Effectiveness of home-based and remotely supervised aerobic exercise in Parkinson's disease: a double-blind, randomised controlled trial	The Lancet Neurology	10.1016/S1474- 4422(19)30285- 6
Vergara-Diaz	2018	Tai Chi for Reducing Dual-task Gait Variability, a Potential Mediator of Fall Risk in Parkinson's Disease: A Pilot Randomized Controlled Trial	Global Advances in Health and Medicine	10.1177/216495 6118775385
Vieira de Moraes Filho	2020	Progressive Resistance Training Improves Bradykinesia, Motor Symptoms and Functional Performance in Patients with Parkinson's Disease	Clinical Interventions in Aging	10.2147/CIA.S2 31359
Volpe	2013	A comparison of Irish set dancing and exercises for people with Parkinson's disease: A phase II feasibility study	BMC Geriatrics	10.1186/1471- 2318-13-54
Walter	2019	Changes in Nonmotor Symptoms Following an 8-Week Yoga Intervention for People with Parkinson's Disease	International Journal of Yoga Therapy	10.17761/2019- 00025

Wróblewska	2019	The Therapeutic Effect of Nordic Walking on Freezing of Gait in Parkinson's	Parkinson's Disease	10.1155/2019/38	
		Disease: A Pilot Study	I dikilisoli s Disedse	46279	
Xiao	2016	Effect of health Baduanjin Qigong for mild to moderate Parkinson's disease:	Geriatrics & Gerontology	10.1111/ggi.125	
		Health qigong Baduanjin for PD patients	International	71	
Yang	2016	Home-based virtual reality balance training and conventional balance training in	Journal of the Formosan	10.1016/j.jfma.2	
		Parkinson's disease: A randomized controlled trial	Medical Association	015.07.012	
Yuan	2020	Effects of interactive video come based everying on belance in older adults with	Journal of	10.1186/s12984- 020-00725-y	
		mild to moderate Derkingen's disease	NeuroEngineering and		
		Innu-to-moderate Farkinson's disease	Rehabilitation		
Zhang	2015	Effects of Tai Chi and Multimodal Evancias Training on Movement and Palance	American Journal of	10.1097/PHM.00	
		Effects of Tar Chi and Muthinodal Exercise Training on Movement and Balance	Physical Medicine &	000000000035	
		runchon in wind to woderate idiopaune Parkinson Disease	Rehabilitation	1	

Table S4. N	Network	meta-analysis	consistency	models f	for "ON	state"	UPDRS -
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	Comparison to 'true control	"	Likelihood (%) of being		
Exercise	Pooled SMD (95% CI)	P value	Best	Worst	SUCRA (%)
mode					
True control	-	-	0.0	0.6	18
Active control	3.20 (-0.54 to 6.95)	0.094	0.0	0.0	43
Aquatic	7.12 (2.93 to 11.31)	0.001	19.7	0.0	85
Boxing	-8.78(-17.17 to -0.38)	0.040	0.0	82.9	2
Cycling	1.62 (-2.77 to 6.00)	0.470	0.1	0.3	32
Dancing	7.54 (3.77 to 11.31)	<0.001	34.8	0.0	89
Exergaming	-1.58 (-12.94 to 9.78)	0.785	3.9	13.1	24
Functional	5.02 (1.56 to 8.49)	0.005	0.1	0.0	63
Multimodal	5.66 (2.00 to 9.32)	0.002	8.4	0.0	72
Nordic walking	6.56 (2.14 to 10.97)	0.004	14.0	0.0	80
Ordinary walking	6.80 (2.66 to 10.95)	0.001	14.8	0.0	82
Qigong	2.91 (-1.26 to 7.09)	0.171	0.6	0.0	43
Strength	3.83 (0.32 to 7.34)	0.033	0.1	0.0	51
Stretching	-0.94 (-5.72 to 3.83)	0.699	0.0	3.1	15
Taichi	2.53 (-0.92 to 5.98)	0.150	0.1	0.0	39
Yoga	4.88 (1.28 to 8.49)	0.008	3.5	0.0	63