Supplementary Materials

Effects of Mind–Body Interventions Involving Meditative Movements on Quality of Life, Depressive Symptoms, Fear of Falling and Sleep Quality in Older Adults: A Systematic Review with Meta-Analysis

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Included elements in this document: 2 Figures and 3 Tables

Figure S1 Funnel plots for publication bias assessment on the outcome quality of life (A) and its subscales: physical functioning (B), psychological functioning (C) and social functioning (D). The middle-dashed line indicated the mean SMD. SE: standard error; SMD: standardized mean difference.

Figure S2 Funnel plots for publication bias assessment on the outcomes depressive symptoms (E), fear of falling (F) and sleep quality (G). The middle-dashed line indicated the mean SMD. SE: standard error; SMD: standardized mean difference.

Table S1 Characteristics of the included studies.

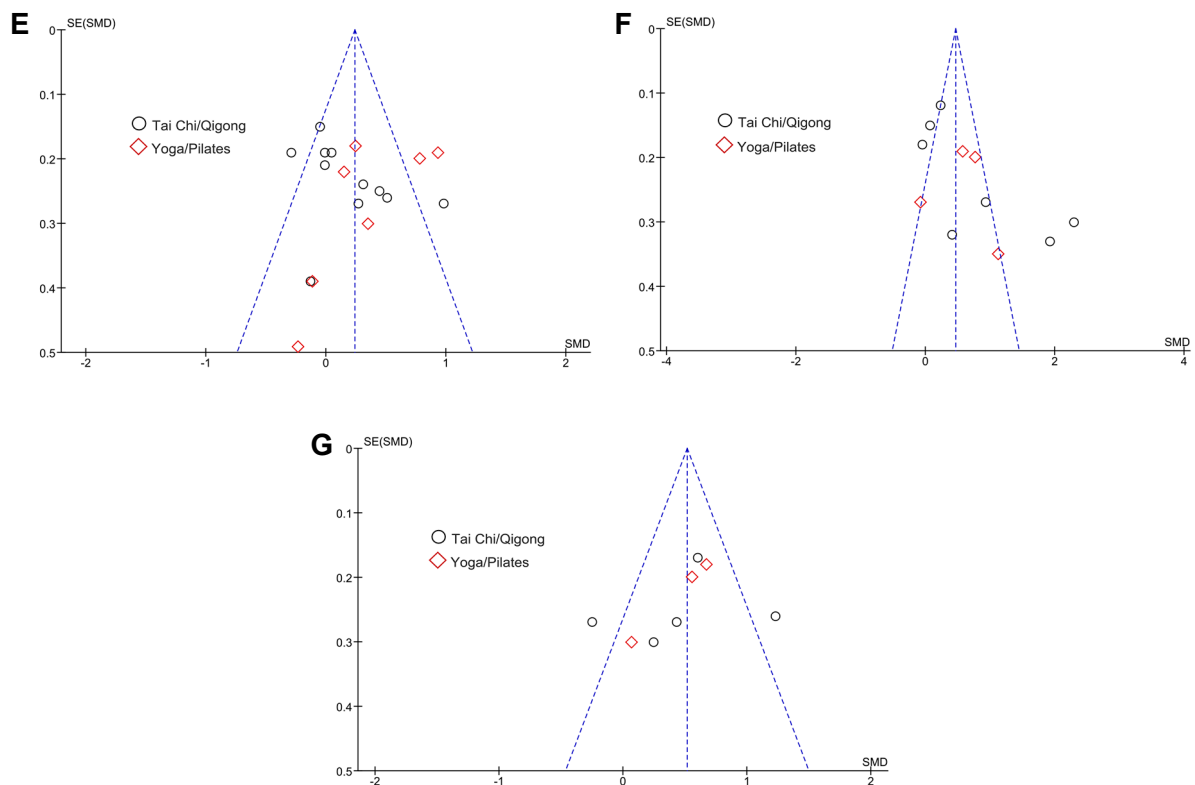| Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[1] 2019, Spain	Two-arm RCT	Community-dwelling postmenopausal women aged 60 and above, *n* = 107, 68.2 ± 8.4 years	IG *n* = 55, 70.0 ± 7.8 years	(a) IG: Pilates (basic principles, breathing, strengthening and stretching exercises for main body segments)	12 weeks, 2 sessions/week, 60 min/session	HADS PSQI	7
			CG *n* = 52, 66.8 ± 10.1 years	(b) CG: day-to-day lifestyle, received a series of guidelines			
[2] 2019, Spain	Two-arm RCT	Community-dwelling postmenopausal women aged 60 and above, *n* = 107, 68.2 ± 8.4 years	IG *n* = 55, 70.0 ± 7.8 years	(a) IG: Pilates (basic principles, breathing, strengthening and stretching exercises for main body segments)	12 weeks, 2 sessions/week, 60 min/session	ABC FES-I	8
			CG *n* = 52, 66.8 ± 10.1 years	(b) CG: day-to-day lifestyle, received a series of guidelines			
[3] 2009, Turkey	Two-arm RCT	Sedentary women with senile osteoporosis aged 65 and above, *n* = 44, 70.2 ± 5.6 years	IG *n* = 22, 69.5 ± 4.9 years	(a) IG: Tai Chi	6 months, 3 sessions/week, weeks 1-4: 30min/session weeks 5-24: 60 min/session	NHP SF-36	7
			CG *n* = 22, 71.2 ± 6.3 years	(b) CG: normal lifestyle			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[4] 2013, China	Three-arm RCT	Chronic obstructive pulmonary disease (COPD) patients aged 60 and above, *n* = 206	IG *n* = 70, 71.7 ± 8.2 years	(a) IG: Tai Chi Qigong	3 months, 2 sessions/week, 60 min/session	SGRQ MSPSS	6
			CG *n* = 67, 73.6 ± 7.4 years	(b) CG: usual care			
			BW *n* = 69, 73.6 ± 7.5 years	(c) BW: breathing and walking exercise, not included in meta-analysis			
[5] 2017, China	Two-arm RCT	"Hidden" (isolated) elderly aged 60 and above, *n* = 46, 77.3 ± 7.4 years	IG *n* = 24, 75.4 ± 5.9 years	(a) IG: Tai Chi Qigong (18 forms)	3 months, 2 sessions/week, 60 min/session	SF-12 MHI-18 LSNS-6 DJGLS RSSQ RSES	6
			CG *n* = 22, 79.4 ± 8.5 years	(b) CG: routine activities			
[6] 2009, China	Two-arm cluster RCT	Community-dwelling older adults aged 60 and above, *n* = 128, 69.2 ± 6.2 years	IG *n* = 62, 65.8 ± 4.3 years	(a) IG: silver Yoga	6 months, 3 sessions/week, 70 min/session	SF-12 TDQ PSQI	5
			CG *n* = 66, 72.4 ± 6.0 years	(b) CG: wait-list control group			
[7] 2010, USA	Two-arm RCT	Postmenopausal women with osteopenia aged 65 and above, *n* = 53	IG *n* = 26, 72.4 ± 6.2 years	(a) IG: Tai Chi (simplified 24-form Yang-style)	24 weeks, 3 sessions/week, 60 min/session	SF-36	6
			CG *n* = 27, 71.3 ± 6.0 years	(b) CG: no treatment			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[8] 2013, Korea	Three-arm RCT	Single women with backache aged 65 and above, *n* = 102, 68.5 years	YJJ *n* = 32	(a) YJJ: Yi Jin Jing (health Qigong), 12 routines	12 weeks, 3 sessions/week, 60 min/session	GDS-SF	5
			LZJ *n* = 36	(b) LZJ: Liu Zi Jue (health Qigong), 6 routines			
			CG *n* = 34	(c) CG: no treatment			
[9] 2017, Iran	Two-arm RCT	Residents of elderly home aged 60 and above, *n* = 56	IG *n* = 27, 69.2 ± 5.5 years	(a) IG: Tai Chi (10 steps)	12 weeks, 3 sessions/week, 5-25 min/session (progressive duration)	BDI-II	5
			CG *n* = 29, 69.3 ± 5.0 years	(b) CG: activities of daily living (ADL)			
[10] 2020, China + Canada	Two-arm cluster RCT	Adults with sleep disturbances aged 60 and above, *n* = 139, 71.1 ± 6.3 years	IG *n* = 67, 70.3 ± 5.7 years	(a) IG: Baduanjin (Qigong)	24 weeks, 5 sessions/week, 45 min/session	SF-36 PSQI	6
			CG *n* = 72, 71.8 ± 6.7 years	(b) CG: wait-list control group			
[11] 2007, Australia	Three-arm RCT	Community-dwelling adults with symptomatic hip or knee osteoarthritis aged between 59 and 85, *n* = 152, 71.1 ± 6.3 years	IG *n* = 56, 70.8 ± 6.3 years	(a) IG: Tai Chi for arthritis (modification of 24 forms from the Sun style of Tai Chi)	12 weeks, 2 sessions/week, 60 min/session	SF-12 DASS21	8
			CG *n* = 41, 69.6 ± 6.1 years	(b) CG: wait-list control group			
			HT *n* = 55, 70.0 ± 6.3 years	(c) HT: hydrotherapy, not included in meta-analysis			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[12] 2016, Israel	Two-arm RCT	Community-dwelling older adults aged 65 and above, *n* = 78, 71.15 ± 4.3 years	IG *n* = 34, 70.3 ± 3.8 years	(a) IG: Pilates (balance control, postural control, strength, 3 levels; Thera-Band + Swiss balls)	3 months, 3 sessions/week, 60 min/session	SF-36	7
			CG *n* = 44, 72.1 ± 4.6 years	(b) CG: no treatment			
[13] 2009, USA	Two-arm RCT	Older adults aged 60 and above with kyphosis angle ≥ 40° (noticed after age 50), *n* = 118, 75.5 ± 7.4 years	IG *n* = 58, 74.5 ± 7.6 years	(a) IG: Hatha Yoga [*asanas* (poses) and *pranas* (breathing)]	24 weeks, 3 sessions/week, 60 min/session	SF-36 ABC	8
			CG *n* = 60, 76.5 ± 7.2 years	(b) CG: monthly lunch/seminars (2 hours per session)			
[14] 2018, USA	Two-arm RCT	Inactive adults at risk for further mobility disability aged between 60 and 89, *n* = 45	IG *n* = 22, 71.6 ± 8.3 years	(a) IG: silver age Yoga (program based on principles of Iyengar Yoga)	10 weeks, 2 sessions/week, 60 min/session	SF-36 CES-D PSQI	6
			HE *n* = 23, 76.0 ± 7.8 years	(b) HE: health education (weekly information workshops)			
[15] 2011, Iran	Two-arm RCT	Residents of elderly home aged 60 and above, *n* = 56	IG *n* = 29, 68.7 ± 5.5 years	(a) IG: Tai Chi (10 stages)	12 weeks, 3 sessions/week, 5-25 min/session (progressive duration)	PSQI	5
			CG *n* = 27, 69.4 ± 5.3 years	(b) CG: activities of daily living (ADL)			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[16] 2018, Iran	Two-arm RCT	Community-dwelling adults aged 60 and above, *n* = 60, estimated mean age 71.5 years	IG *n* = 30	(a) IG: Tai Chi Chuan (Yang-style)	8 weeks, 2 sessions/week, 55 min/session	FES-I	7
			CG *n* = 30	(b) CG: no treatment			
[17] 2016, China + Australia	Two-arm RCT	Adults in a long-term care facility using wheelchairs aged 65 and above, *n* = 60, 81.3 ± 8.1 years	IG *n* = 30, 80.7 ± 9.7 years	(a) IG: STEP; simplified Tai Chi exercise program (seated Tai Chi)	26 weeks, 3 sessions/week, 40 min/session	POMS-SF	6
			CG *n* = 30, 81.8 ± 6.3 years	(b) CG: usual care activities			
[18] 2016, China + Australia	Two-arm RCT	Adults in a long-term care facility using wheelchairs aged 65 and above, *n* = 60, 81.3 ± 8.1 years	IG *n* = 30, 80.7 ± 9.7 years	(a) IG: STEP; simplified Tai Chi exercise program (seated Tai Chi)	26 weeks, 3 sessions/week, 40 min/session	WHOQOL-BREF GDS-SF	6
			CG *n* = 30, 81.8 ± 6.3 years	(b) CG: usual care activities			
[19] 2011, China	Three-arm RCT	Community-dwelling adults aged 60 and above, *n* = 186, estimated mean age 68.5 years	IG *n* = 62	(a) IG: Tai Chi + CB (core of lessons: 10 positions derived from the Yang-style and 8-weekly sessions of cognitive-behavioral strategies)	8 weeks, 3-5 sessions/week, 60 min/session	WHOQOL-BREF ISSB GFFM FES	8
			CG *n* = 62	(b) CG: no treatment			
			CB *n* = 62	(c) CB: cognitive-behavioral strategies, not included in meta-analysis			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[20] 2008, USA	Two-arm RCT	Adults with moderate sleep complaints aged 59 and above, *n* = 112	IG *n* = 59, 69.7 ± 6.2 years	(a) IG: Tai Chi Chih (specific set of 20 exercises)	16 weeks, 3 sessions/week, 40 min/session	BDI PSQI	7
			HE *n* = 53, 70.2 ± 7.5 years	(b) HE: health education (16 didactic presentations)			
[21] 2001, USA	Two-arm RCT	Healthy, physically inactive adults aged 65 and above, *n* = 72, 72.8 ± 5.1 years	IG *n* = 40, 72.8 ± 4.7 years	(a) IG: Tai Chi (classical Yang-style; 24 forms; strength, balance, postural alignment and concentration)	6 months, 2 sessions/week, 60 min/session	SF-20	5
			CG *n* = 32, 72.7 ± 5.7 years	(b) CG: wait-list control group			
[22] 2019, USA	Two-arm cluster RCT	Adults from subsidized housing facilities aged 60 and above, *n* = 180, 75.3 ± 8.8 years	IG *n* = 93, 75.9 ± 9.1 years	(a) IG: Tai Chi (9 core movements following the traditional Cheng-Man-Ch'ing's Yang-style)	52 weeks, 2 sessions/week, 60 min/session	SF-12 CES-D ABC	6
			HE *n* = 87, 74.6 ± 8.6 years	(b) HE: health education (lecture and group discussions)			
[23] 2009, The Netherlands	Two-arm RCT	Community-dwelling adults with high fall risk aged 70 and above, *n* = 269, 77 ± 4.7 years	IG *n* = 138, 77.5 ± 4.7 years	(a) IG: Tai Chi Chuan (10 positions from Yang-style in main exercise + warm-up from Chi Kung)	13 weeks, 2 sessions/week, 60 min/session	FES	8
			CG *n* = 131, 76.8 ± 4.6 years	(b) CG: usual care			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[24] 2017, China	Two-arm RCT	Women with knee osteoarthritis aged 60 and above, *n* = 46, 71.1 ± 2.7 years	IG *n* = 23, 64.6 ± 3.4 years	(a) IG: Tai Ji Quan (8 forms adapted primarily from the 24-form practice routine)	24 weeks, 3 sessions/week, 60 min/session	SF-36 PSQI	7
			HE *n* = 23, 64.5 ± 3.4 years	(b) HE: bi-weekly health education classes			
[25] 2018, Iran	Two-arm RCT	Community-dwelling adults aged 60 and above, *n* = 53	IG *n* = 27, 67.2 ± 5.4 years	(a) IG: Tai Chi (Yang-style)	10 weeks, 3 sessions/week, 20 min/session	FES-I	6
			CG *n* = 26, 68.1 ± 5.2 years	(b) CG: normal life routine			
[26] 2012, Vietnam + Germany	Two-arm RCT	Community-dwelling adults aged 60 and above, *n* = 73, 69.0 ± 5.1 years	IG *n* = 39, 69.2 ± 5.3 years	(a) IG: Tai Chi (24-form exercise; balance, postural alignment, concentration)	6 months, 2 sessions/week, 60 min/session	PSQI FES	5
			CG *n* = 34, 68.7 ± 5.0 years	(b) CG: routine of daily activities			
[27] 2016, Iran	Two-arm RCT	Community-dwelling adults aged between 60 and 74, *n* = 39	IG *n* = 20, 68.0 ± 4.9 years	(a) IG: Hatha Yoga (emphasis on *Pavanamuktasana* and balance movements)	8 weeks, 2 sessions/week, 60 min/session	MFES	5
			CG *n* = 19, 68.8 ± 4.8 years	(b) CG: no treatment			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[28] 2017, Australia + Thailand	Three-arm RCT	Healthy, physically inactive adults aged 60 and above, *n* = 39, 67.7 ± 6.7 years	TY *n* = 13, 67.7 ± 4.9 years	(a) TY: Thai Yoga (15 postures)	12 weeks, 2 sessions/week, 80 min/session	SF-36 CES-D	8
			TC *n* = 13, 67.2 ± 8.3 years	(b) TC: Tai Chi (Sun Style; 12 movements)			
			CG *n* = 13, 65.2 ± 6.7 years	(c) CG: telephone calls (information on exercise)			
[29] 2019, Korea	Two-arm RCT	Community-dwelling adults aged 65 and above, *n* = 42	IG *n* = 20, 71.6 ± 6.0 years	(a) IG: Tai Chi (24 forms of Yang-style)	6 weeks, 5 sessions/week, 60 min/session	SWLS PEBS	6
			CG *n* = 22, 70.6 ± 7.0 years	(b) CG: no treatment			
[30] 2006, USA	Three-arm RCT	Inactive, community-dwelling adults aged 65 and above, *n* = 118	IG *n* = 38, 71.5 ± 4.9 years	(a) IG: Iyengar Yoga	6 weeks, 1 session/week, 90 min/session	SF-36 MFI CESD-10 POMS	6
			CG *n* = 42, 73.6 ± 5.1 years	(b) CG: wait-list control group			
			AE *n* = 38, 71.2 ± 4.4 years	(c) AE: aerobic exercise, not included in meta-analysis			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[31] 2018, UK + Iran + Norway	Two-arm RCT	Healthy, inactive men aged 60 and above living in a retirement home, *n* = 132, 67.5 ± 0.3 years	IG *n* = 66, 67.9 ± 4.4 years	(a) IG: Tai Chi (Yang-style; 10 movements extracted from 24 simple forms of Tai Chi Chuan)	8 weeks, 3 sessions/week, 30-40 min/session (progressive duration)	LEIPAD	8
			CG *n* = 66, 67.0 ± 3.6 years	(b) CG: no treatment			
[32] 2016, Germany + Switzerland	Three-arm RCT	Adults with chronic low back pain aged 65 and above (community-dwelling and retirement homes), *n* = 176	YG *n* = 61, 73.0 ± 5.6 years	(a) YG: Viniyoga method; physical, breathing and concentration exercises while sitting, standing and lying	3 months, YG: 2 sessions/week, 45 min/session, QG: 1 session/week, 90 min/session	SF-36 GDS	7
			QG *n* = 58, 72.4 ± 5.7 years	(b) QG: Dantian and Nei Yang Gong (Qigong) exercises from the Training System Liu Ya Fei			
			CG *n* = 57, 72.6 ± 6.0 years	(c) CG: wait-list control group			
[33] 2017, UK	Two-arm RCT	Physically inactive adults aged 60 and above, *n* = 52, 74.8 ± 7.2 years	IG *n* = 25, 73.8 ± 6.5 years	(a) IG: Yoga (*asana* and *pranayama*; postural advice, breath work, concentration)	10 weeks, 1 session/week, 75 min/session	EQ-5D-5L WEMWBS	7
			CG *n* = 27, 75.7 ± 7.9 years	(b) CG: wait-list control group			
[34] 2013, Australia	Two-arm RCT	Community-dwelling adults aged 59 and above, *n* = 54, 68.0 ± 7.1 years	IG *n* = 27, 67.7±7.2 years	(a) IG: Iyengar Yoga	12 weeks, 2 sessions/week, 60 min/session	Short FES-I	8
			CG *n* = 27, 67.3 ± 6.1 years	(b) CG: no treatment			

Table S1 *Continued*

Reference: Publication Year, Country	Study Design	Sample: Population, Sample Size, Mean Age ± *SD*	Groups: Sample Size, Mean Age ± *SD*	Intervention	Training Characteristics	Target Outcome Measures	PEDro Score
[35] 2013, China	Two-arm RCT	Frail adults aged 60 and above, *n* = 116	IG *n* = 61, 83.3 ± 6.3 years	(a) IG: Qigong (Yan Chai Yi Ji; ten-section brocade for standing and sitting positions)	12 weeks, 2 sessions/week, 60 min/session	GDS	5
			CG *n* = 55, 84.9 ± 6.0 years	(b) CG: newspaper reading group			
[36] 2010, USA	Two-arm RCT	Community-dwelling adults aged 60 and above, *n* = 17	IG *n* = 7, 75.5 ± 9.2 years	(a) IG: Yoga	4 weeks, 2 sessions/week, 60 min/session	UCLA CES-D	5
			CG *n* = 10, 74.5 ± 8.1 years	(b) CG: socialization group			
[37] 2016, China	Three-arm RCT	Community-dwelling non-fallers at risk of falling aged between 65 and 74, *n* = 61	TC *n* = 20, 68.8 ± 3.0 years	(a) TC: Tai Chi (Yang-style)	16 weeks, 3 sessions/week, 90 min/session	FES-I	8
			CG *n* = 21, 69.9 ± 3.3 years	(b) CG: no treatment			
			ExBP *n* = 20, 70.2 ± 3.9 years	(c) ExBP: Exercise for Balance improvement program, not included in meta-analysis			

Notes. n: sample size; SD: standard deviation; IG: intervention group; CG: control group; PEDro: Physiotherapy Evidence Database scale; ABC: Activities-Specific Balance Confidence Scale; BDI: Beck Depression Inventory; BDI-II: Beck Depression Inventory-II; CES-D: Center for Epidemiological Studies Depression Scale; DASS21: Depression Anxiety Stress Scale-21; DJGLS: De Jong Gierveld Loneliness Scale; EQ-5D-5L: EuroQoL 5-dimension 5-level; (Short) FES: (Short) Falls Efficacy Scale; FES-I: Falls Efficacy Scale-International; GDS: Geriatric Depression Scale; GDS-SF: Geriatric Depression Scale-Short Form; GFFM: Geriatric Fear of Falling Measure; HADS: Hospital Anxiety and Depression Scale; ISSB: Inventory of Social Supportive Behaviors; LEIPAD: Leiden-Padua questionnaire; LSNS-6: Lubben Social Network Scale-6; MFES: Modified Falls Efficacy Scale; MFI: Multidimensional Fatigue Inventory; MHI-18: Mental Health Inventory-18; MSPSS: Multidimensional Scale of Perceived Social Support; NHP: Nottingham Health Profile; PEBS: Perceived Self-Efficacy Scale; POMS: Profile of Mood States; POMS-SF: Profile of Mood States-Short Form; PSQI: Pittsburgh Sleep Quality Index; RSES: Rosenberg Self-Esteem Scale; RSSQ: Revised Social Support Questionnaire; SF-36: 36-Item Short Form Health Survey; SF-12: 12-Item Short Form Health Survey; SF-20: 20-Item Short Form Health Survey; SGQR: St. George's Respiratory Questionnaire; SWLS: Satisfaction with Life Scale; TDQ: Taiwanese Depression Questionnaire; UCLA: University of California, Los Angeles, Loneliness Scale; WEMWBS: Warwick-Edinburgh Mental Well-being Scale; WHOQOL-BREF: World Health Organization Quality of Life Brief Version.

Table S2 Questionnaires and corresponding outcomes of the included studies.

Name (Abbreviation, Reference)	Items	Dimension/Subscales	Interpretation
Overall Quality of life (QoL)			
EuroQol 5-dimension 5-level (EQ-5D-5L) [38]	5 + VAS	QoL *mobility* *self-care* *usual activities* *pain/discomfort* *anxiety/depression* *visual analogue scale (VAS)*	Total score: 0–1 (index value) Total score: 0–100 (VAS) Higher scores indicate better QoL
Leiden-Padua questionnaire (LEIPAD) [39]	31	QoL *physical functioning* *self-care* *depression and anxiety* *mental functioning* *social functioning* *sexual function* *life satisfaction*	Total score: 0–93 Higher scores indicate better QoL
Nottingham Health Profile (NHP) [40]	38	QoL *sleep* *physical activity/mobility* *pain* *energy* *emotional reactions* *social isolation*	Total score: 0–100 Higher scores indicate poorer level of health
Satisfaction With Life Scale (SWLS) [41]	5	Life satisfaction	Total score: 5–35 Higher scores indicate better QoL

Table S2 *Continued*

Name (Abbreviation, Reference)	Items	Dimension/Subscales	Interpretation
Short Form Health Survey (SF36/20/12) [42]	36//20/12	QoL *physical functioning* *role physical* *bodily pain* *general health* *mental health* *role emotional* *vitality* *social functioning*	Total score: 0–100 Higher scores indicate better QoL
St. George's Respiratory Questionnaire (SGRQ) [43]	50	QoL (patients with diseases of airways obstruction) *symptoms* *activity* *impact*	Total score: 0–100 Higher scores indicate more limitations
World Health Organization Quality of Life Brief Version (WHOQOL-BREF) [44]	26	QoL *physical health* *psychological health* *social relationships* *environment*	Total score: 16–80 Higher scores indicate better QoL
Physical and psychological functioning (QoL)			
Multidimensional Fatigue Inventory (MFI) [45]	20	Fatigue *physical fatigue* *reduced activity* *mental fatigue* *reduced motivation* *general fatigue*	Total score: 20–140 Higher scores indicate higher degree of fatigue

Table S2 *Continued*

Name (Abbreviation, Reference)	Items	Dimension/Subscales	Interpretation
		Psychological functioning (QoL)	
Mental Health Inventory (MHI-18) [46]	18	Mental health *anxiety* *depression* *behavioral control* *positive affect* *general distress*	Total score: 0–100 Higher scores indicate better mental health
Perceived Self-Efficacy Scale (PEBS) [47]	10	Self-efficacy	Total score: 5–50 Higher scores indicate higher self-efficacy
Rosenberg Self-Esteem Scale (RSES) [48]	10	Self-esteem	Total score: 10–40 Higher scores indicate higher self-esteem
Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) [49]	14	Mental well-being	Total score: 14–70 Higher scores indicate higher mental well-being
		Social functioning (QoL)	
De Jong Gierveld Loneliness Scale (DJGLS) [50]	11	Feelings of loneliness *social loneliness* *emotional loneliness*	Total score: 0–11 Higher scores indicate greater loneliness
Inventory of Social Supportive Behaviors (ISSB) [51]	13	Supportive behaviors *behavior* *satisfaction*	Total score: 13–65 Higher scores indicate better behavior and satisfaction

Table S2 *Continued*

Name (Abbreviation, Reference)	Items	Dimension/Subscales	Interpretation
Lubben Social Network Scale (LSNS-6) [52]	6	Social network	Total score: 0–30 Higher scores indicate larger social networks
Multidimensional Scale of Perceived Social Support (MSPSS) [53]	12	Perceived social support	Total score: 12–84 Higher levels of perceived support
Revised Social Support Questionnaire (RSSQ) [54]	6	Social support	Total score: 6–36 Higher scores indicate larger social networks
University of California, Los Angeles, Loneliness Scale (UCLA) [55]	20	Social isolation	Total score: 0–93 Higher scores indicate higher level of loneli-ness
Depressive symptoms			
Beck Depression Inventory (2nd version) (BDI/BDI-II) [56]	21	Depression	Total score: 0–63 Higher scores indicate greater depressive symptoms
Center for Epidemiological Stud-ies Depression Scale (CES-D) [57]	20	Depression	Total score: 0–60 Higher scores indicate greater depressive symptoms

Table S2 *Continued*

Name (Abbreviation, Reference)	Items	Dimension/Subscales	Interpretation
Depression Anxiety Stress Scale (short version) (DASS21) [58]	21	Depression Anxiety Stress	Total score: 0–42 (3x) Higher scores indicate more psychological distress
Geriatric Depression Scale (Short Form) (GSD/GDS-SF) [59]	30/15	Depression	Total score: 0–15/30 Higher scores indicate greater depressive symptoms
Hospital Anxiety and Depression Scale (HADS) [60]	14	Depression Anxiety	Total score: 0–21 Higher scores indicate greater depressive symptoms

Profile of Mood States
(Short Form)
(POMS/POMS-SF)
[61]
	65/35	Mood states
		    tension-anxiety
		    depression-dejection
		    anger-hostility
		    vigor-activity
		    fatigue-inertia
		    confusion-bewilderment
			Higher scores in vigor indicate good mood or emotion, lower scores in the other subscales indicate good mood or emotion

Taiwanese Depression Questionnaire (TDQ) [62]	18	Depression	Total score: 0–54 Higher scores indicate greater depressive symptoms
Fear of falling (FoF)			
Activities-Specific Balance Confidence Scale (ABC) [63]	16	Balance confidence	Total score: 0–100 Higher scores indicate greater balance confidence

Table S2 *Continued*

Name (Abbreviation, Reference)	Items	Dimension/Subscales	Interpretation
Falls Efficacy Scale (International) (FES/FES-I/Short FES-I) [64]	10/16/7	FoF	Total score: 10–100/16–64/7–28 Higher scores indicate greater FoF
Modified Falls Efficacy Scale (MFES) [65]	14	FoF	Total score: 0–10 Higher scores indicate greater FoF
Geriatric Fear of Falling Measure (GFFM) [66]	15	FoF *psychosomatic symptoms* *risk prevention* *modifying behavior*	Total score: 0–15 Higher scores indicate greater FoF

		Sleep quality		

Name	Items	Dimension/Subscales	Interpretation
Pittsburgh Sleep Quality Index (PSQI) [67]	19	Sleep quality *subjective sleep quality* *sleep latency* *sleep duration* *habitual sleep efficacy* *sleep disturbances* *sleeping medications* *daytime dysfunction*	Total score: 0–21 Higher scores indicate worse sleep quality

Table S3 PEDro scores and sum of the included trials.

Reference	1. Eligibility Specified	2. Subjects Randomly Allocated	3. Concealed Allocation	4. Similar Baseline Values	5. Blinding of Subjects	6. Blinding of Therapist	7. Blinding of Assessor	8. Dropout <15%	9. Received Treatment as Allocated	10. Statistical Between-Group Comparison	11. Point Measures and Variability Provided	Sum (2–11)
[1]	+	+	+	+	–	–	+	+	–	+	+	7
[2]	+	+	+	+	–	–	+	+	+	+	+	8
[3]	+	+	–	+	–	–	+	+	+	+	+	7
[4]	+	+	–	+	–	–	+	–	+	+	+	6
[5]	+	+	–	+	–	–	+	+	–	+	+	6
[6]	+	+	–	+	–	–	–	+	–	+	+	5
[7]	+	+	–	+	–	–	+	+	–	+	+	6
[8]	+	+	–	+	–	–	–	+	–	+	+	5
[9]	+	+	–	+	–	–	–	+	–	+	+	5
[10]	+	+	–	+	–	–	–	+	+	+	+	6
[11]	+	+	+	+	–	–	+	+	+	+	+	8
[12]	+	+	+	+	–	–	+	+	–	+	+	7
[13]	+	+	+	+	–	–	+	+	+	+	+	8

Table S3 *Continued*

Reference	1. Eligibility Specified	2. Subjects Randomly Allocated	3. Concealed Allocation	4. Similar Baseline Values	5. Blinding of Subjects	6. Blinding of Therapist	7. Blinding of Assessor	8. Dropout <15%	9. Received Treatment as Allocated	10. Statistical Between-Group Comparison	11. Point Measures and Variability Provided	Sum (2–11)
[14]	+	+	−	+	−	−	+	+	−	+	+	6
[15]	−	+	−	+	−	−	−	+	−	+	+	5
[16]	+	+	−	+	−	−	+	+	+	+	+	7
[17]	+	+	−	+	−	−	−	+	+	+	+	6
[18]	+	+	−	+	−	−	−	+	+	+	+	6
[19]	+	+	+	+	−	−	+	+	+	+	+	8
[20]	+	+	+	+	−	−	−	+	+	+	+	7
[21]	+	+	−	+	−	−	−	+	−	+	+	5
[22]	+	+	−	+	−	−	+	−	+	+	+	6
[23]	+	+	+	+	−	−	+	+	+	+	+	8
[24]	+	+	−	+	−	−	+	+	+	+	+	7
[25]	+	+	+	+	−	−	−	+	−	+	+	6
[26]	+	+	−	+	−	−	−	+	−	+	+	5

Table S3 *Continued*

Reference	1. Eligibility Specified	2. Subjects Randomly Allocated	3. Concealed Allocation	4. Similar Baseline Values	5. Blinding of Subjects	6. Blinding of Therapist	7. Blinding of Assessor	8. Dropout <15%	9. Received Treatment as Allocated	10. Statistical Between-Group Comparison	11. Point Measures and Variability Provided	Sum (2–11)
[27]	+	+	–	+	–	–	–	+	–	+	+	5
[28]	+	+	+	+	–	–	+	+	+	+	+	8
[29]	+	+	+	+	–	–	–	+	–	+	+	6
[30]	+	+	–	+	–	–	+	+	–	+	+	6
[31]	+	+	+	+	–	–	+	+	+	+	+	8
[32]	+	+	+	+	–	–	–	+	+	+	+	7
[33]	+	+	–	+	–	–	+	+	+	+	+	7
[34]	+	+	+	+	–	–	+	+	+	+	+	8
[35]	+	+	–	+	–	–	–	+	–	+	+	5
[36]	+	+	–	+	–	–	–	+	–	+	+	5
[37]	+	+	+	+	–	–	+	+	+	+	+	8

Note. PEDro: Physiotherapy Evidence Database scale; +: yes; –: no.

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