

Supplementary Material

De Santis, K. K., & Kaplan, I. Assessing the quality of systematic reviews in healthcare using AMSTAR and AMSTAR2: a comparison of scores on both scales. *Zeitschrift für Psychologie*.

Contents

Table S1. Assessment of AMSTAR items 1 to 6 in $k = 10$ systematic reviews	2
Table S2. Assessment of AMSTAR items 7 to 11 in $k = 10$ systematic reviews	4
Table S3. AMSTAR scores for $k = 10$ systematic reviews	5
Table S4. Assessment of AMSTAR2 items 1 to 4 in $k = 10$ systematic reviews	6
Table S5. Assessment of AMSTAR2 items 5 to 11 in $k = 10$ systematic reviews	8
Table S6. Assessment of AMSTAR2 items 12 to 16 in $k = 10$ systematic reviews	9
Table S7. AMSTAR2 scores for $k = 10$ systematic reviews.....	10
Table S8. Comparison between AMSTAR and AMSTAR2 on the individual items	11
Table S9. Comparison between AMSTAR and AMSTAR2 on Yes and Partial Yes ratings..	12
Figure S1. Relationship between AMSTAR and AMSTAR2 percentage scores.....	13
Figure S2. Relationship between AMSTAR and AMSTAR2 absolute scores.....	14
References.....	15

Table S1. Assessment of AMSTAR items 1 to 6 in $k = 10$ systematic reviews

Review	Item 1. Was an 'a priori' design provided?	Item 2. Was there duplicate study selection and data extraction?	Item 3. Was a comprehensive literature search performed?			Item 4. Was the status of publication (grey literature) used as an inclusion criterion?	Item 5. Was a list of studies (included and excluded) provided?	Item 6. Were the characteristics of the included studies provided?
			Databases (at least 2)	Search terms reported	Last search reported			
Systematic review								
Review 1: Lee et al., 2008	NO No protocol	CAN'T ANSWER Study selection unclear; data extraction done by 2 assessors	YES 21 databases: Medline, AMED, BNI, PsycInfo, CINAHL, EMBASE, Scopus, Cochrane, Korea: Korean Studies Information, DBPIA, Korea Institute of Science and Technology Information, Research Information Center for Health Database, KoreaMed, National Assembly Library, China: China Academic Journal, Century Journal Project, China Doctor/Master Dissertation Full Text DB, China Proceedings Conference Full Text DB, Qigong and Energy Medicine Database (Version 7.4, Qigong Institute), Japan: Electronic Japan Science, Japan Science and Technology Information Aggregator	YES (tai chi OR taiji OR shadow boxing) AND Parkinson disease	YES 2008	YES Dissertations and abstracts databases; hand search of reference lists	YES Included: table 3, p. 591; Excluded: table 2, p. 590	YES table 3, p. 591
Review 2: Sumec et al., 2015	NO No protocol	CAN'T ANSWER Unclear who selected studies and coded data	YES 3 databases: PubMed, Web of Science, EBSCO	YES Parkinson's disease AND (nonpharmacological, alternative, balance, instability, posture, axial)	YES 2015	NO	YES Included: table 1, p. 3-6; Excluded: NA	CAN'T ANSWER Study design, control groups not explained, table 1, p. 3-6
Review 3: Cwiekala-Lewis et al., 2017	NO No protocol	CAN'T ANSWER 2 assessors of study quality	YES 6 databases: PubMed, CINAHL, Web of Science, Cochrane, PsycINFO, Embase	YES ("tai ji" or "Tai Chi") AND "Parkinson Disease"	YES 2015	NO	YES Included: table 1, p. 417-419; Excluded: NA	YES table 1, p. 417-419
Review 4: Wu et al., 2017	NO No protocol	CAN'T ANSWER Study selection unclear; data extraction: 2+ assessors	YES 5 databases: PubMed, CINAHL, Cochrane, PsycINFO, Scopus	YES PD AND (PA or exercise) AND Depression	YES 2017	NO	YES Included: table 1, p. 5 Excluded: NA	CAN'T ANSWER Sample size per group unclear, table 2, p. 6

Systematic review with meta-analysis								
Review 5: Ni et al., 2014	YES PROSPERO	YES 2 assessors for search and risk of bias	YES 8 databases: PubMed, Embase, Cochrane, Chinese Biomedical Database, China National Knowledge Infrastructure, VIP Journal Integration Platform, Wanfang Med Online, Japan Medical, Abstracts Society	YES (Tai Chi, Tai Ji, T'ai Chi, Taijiquan) AND (Parkinson disease, Parkinson's disease, Primary Parkinsonism, Paralysis Agitans)	YES 2013	YES Clinical trials databases, Google Scholar	YES Included: table 1, p. 4; Excluded: NA	YES table 1-2, p. 4-5
Review 6: Yang et al., 2014	NO No protocol	YES Search, study selection, data extraction: 2 assessors	YES 6 databases: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD	YES (Parkinson's disease or Parkinson) AND (Tai Chi or taiji or shadowboxing)	YES 2014	YES Dissertations, clinical trials databases; hand search of reference lists	YES Included: table 1, p. 3 Excluded: NA	YES table 1, p. 3
Review 7: Yang et al., 2015	NO No protocol	YES Study selection, data extraction: 2 assessors	YES 7 databases: PubMed, EMBASE, Medline, Cochrane, CKRID, WDCTP, WFD	YES (Parkinson, Parkinson's disease, Parkinsonism) AND (traditional Chinese medical exercise, Tai Chi, Qigong, Wuqinxi, Baduanjin and Yijinjing)	YES 2014	YES Dissertations, clinical trials databases; contacted experts	YES Included: table 1, p. 6-7 Excluded: NA	YES table 1, p. 6-7
Review 8: Zhou et al., 2015	NO No protocol	YES Study selection, data extraction: 2 assessors	YES 6 databases: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD	YES (Parkinson, Parkinson's disease, Parkinsonism) AND (Tai Chi, Taiji or shadow boxing)	YES 2014	YES Dissertations and clinical trials databases; experts; hand search of reference lists	YES Included: table 1, p. 4 Excluded: NA	YES table 1, p. 4
Review 9: Kwok et al., 2016	NO No protocol	CAN'T ANSWER Study selection unclear; data extraction: 2 assessors	YES 4 databases: EMBASE, Medline, PsycInfo, Cochrane	YES Parkinson AND Tai Chi	YES 2016	YES Abstracts; hand search of reference lists	YES Included: table 1, p. 126-127 Excluded: NA	YES table 1, p. 126-127
Review 10: Song et al., 2017	NO No protocol	YES Study selection, data extraction: 2 assessors	YES 7 databases: Pubmed, CINAHL, Web of Science, ProQuest Central, Science Direct, Scopus, Cochrane; hand search of reference lists	YES Parkinson's disease AND (Tai Chi or Taiji)	YES 2016	CAN'T ANSWER Hand search but unclear if unpublished sources included	YES Included: table 1, p. 7 Excluded: NA	YES table 1, p. 7

Note. Table, figure, and page numbers refer to the locations in reviews listed in this table.

Abbreviations: AMED, Allied and Complementary Medicine Database; AMSTAR, A Measurement Tool to Assess Systematic Reviews; BNI, British Nursing Index; CINAHL, Cumulative Index to Nursing and Allied Health Literature; CKRID, China Knowledge Resource Integrated Database; *k*, number of systematic reviews; NA, not available; WDCTP, Weipu Database for Chinese Technical Periodicals; WFD, Wan Fang Data.

Table S2. Assessment of AMSTAR items 7 to 11 in $k = 10$ systematic reviews

Review	Item 7. Was the scientific quality of the included studies assessed and documented?	Item 8. Was the scientific quality of the included studies used appropriately in formulating conclusions?	Item 9. Were the methods used to combine the findings of studies appropriate?	Item 10. Was the likelihood of publication bias assessed?	Item 11. Was the conflict of interest stated?
Systematic review					
Lee et al., 2008	YES Modified Jadad scale	YES Results: quality scores (table 3, p. 591; text p. 592); Discussion: Quality as a limitation (p. 592)	YES Results of RCTs explained individually, results of other studies synthesised qualitatively	YES Discussion	NO
Sumec et al., 2015	YES Class of evidence	NO	CAN'T ANSWER Inadequate information on control groups	NO	YES No conflict
Cwiekala-Lewis et al., 2017	YES Quality Index	YES Results: Quality all studies (p. 416) and study subgroups (p. 416-420); Discussion: Quality as a limitation (p. 420)	YES Results for subgroup of studies synthesised qualitatively	NO	YES No conflict
Wu et al., 2017	YES Modified Jadad scale; Class of evidence	NO	CAN'T ANSWER Unclear what groups are compared in table 5, p. 10	NO	YES No conflict
Systematic review with meta-analysis					
Ni et al., 2014	YES Cochrane Risk of Bias	YES Results: Quality/study (figure 2, p. 6), quality all studies (text p. 3, 5); Discussion: Quality as a limitation (p. 1, 10)	NO Unstandardized mean difference; studies not independent; unclear how baseline incorporated in meta-analysis	NO	YES No conflict
Yang et al., 2014	YES Cochrane Risk of Bias	NO Results: Quality/study (figure 2, p. 4), quality all studies (text p. 4-5)	NO Studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis	NO	YES No conflict
Yang et al., 2015	YES PEDro Scale	YES Results: Quality/study (table 2, p. 8), quality all studies (text p. 4); Discussion: Quality as a limitation (p. 14)	NO Unclear how baseline incorporated in meta-analysis	NO	YES No conflict
Zhou et al., 2015	YES PEDro Scale	YES Results: Quality/study (table 2, p. 5), quality all studies (text p. 2); Discussion: Quality as a limitation (p. 6-7)	NO Studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis	NO	YES No conflict
Kwok et al., 2016	YES EPHPP	YES Results: Quality/study (table 2, p. 128), quality all studies (text p. 129); Discussion: Quality as a limitation (p. 131)	NO Fixed-effect model; studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis	NO	YES No conflict
Song et al., 2017	YES Cochrane Risk of Bias	YES Results: Quality/study (table 2, p. 7), quality all studies (text p. 5); Discussion: Quality as a limitation (p. 11)	NO Fixed-effect model; studies not independent; unclear how baseline incorporated in meta-analysis	NO Funnel plots not shown	YES No conflict

Note. Table, figure, and page numbers refer to the locations in reviews listed in this table. Abbreviations. AMSTAR, A Measurement Tool to Assess Systematic Reviews; EPHPP, Effective Public Health Practice Project quality assessment tool; k , number of systematic reviews.

Table S3. AMSTAR scores for $k = 10$ systematic reviews

Review	Item 1. Was an 'a priori' design provided?	Item 2. Was there duplicate study selection and data extraction?	Item 3. Was a comprehensive literature search performed?	Item 4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?	Item 5. Was a list of studies (included and excluded) provided? ^a	Item 6. Were the characteristics of the included studies assessed and documented?	Item 7. Was the scientific quality of the included studies assessed and documented?	Item 8. Was the scientific quality of the included studies used appropriately in formulating conclusions?	Item 9. Were the methods used to combine the findings of studies appropriate?	Item 10. Was the likelihood of publication bias assessed?	Item 11. Was the conflict of interest stated?	Total Score / 11
Systematic review												
Lee et al., 2008	NO	CAN'T ANSWER	YES	YES	YES	YES	YES	YES	YES	YES	NO	8
Sumec et al., 2015	NO	CAN'T ANSWER	YES	NO	YES	CAN'T ANSWER	YES	NO	CAN'T ANSWER	NO	YES	4
Cwickala-Lewis et al., 2017	NO	CAN'T ANSWER	YES	NO	YES	YES	YES	YES	YES	NO	YES	7
Wu et al., 2017	NO	CAN'T ANSWER	YES	NO	YES	CAN'T ANSWER	YES	NO	CAN'T ANSWER	NO	YES	4
Systematic review with meta-analysis												
Ni et al., 2014	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	9
Yang et al., 2014	NO	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	7
Yang et al., 2015	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	8
Zhou et al., 2015	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	8
Kwok et al., 2016	NO	CAN'T ANSWER	YES	YES	YES	YES	YES	YES	NO	NO	YES	7
Song et al., 2017	NO	YES	YES	CAN'T ANSWER	YES	YES	YES	YES	NO	NO	YES	7

Note. Assessment: 1 point = YES, 0 point= NO or CAN'T ANSWER (item is inadequately addressed or not addressed); Total AMSTAR Score = sum of YES: 0 (minimum quality) – 11 (maximum quality).

^aItem 5 was rated YES in case a review showed a list of the included studies (the majority of reviews did not list the excluded studies).

Abbreviations: AMSTAR, A Measurement Tool to Assess Systematic Reviews; k , number of systematic reviews.

Table S4. Assessment of AMSTAR2 items 1 to 4 in $k = 10$ systematic reviews

Review	Item 1. PICO	Item 2. Review protocol	Item 3. Study designs	Item 4. Search strategy							
				Overall rating	Databases (at least 2)	Search terms (limits)	Reference lists	Trial/study registries	Content experts	Grey literature	Search < 24 months
Systematic review											
Lee et al., 2008	YES	NO No protocol	YES Any design	PARTIAL YES	YES 21: Medline, AMED, BNI, PsycInfo, CINAHL, EMBASE, Scopus, Cochrane, 6 Korean, 5 Chinese, 2 Japanese	YES (tai chi OR taiji OR shadow boxing) AND Parkinson disease (no limits)	YES	NO	NO	YES Dissertations , conference abstracts	YES 2008
Sumec et al., 2015	NO Control unclear	NO No protocol	NO	PARTIAL YES	YES 3: PubMed, Web of Science, EBSCO	YES Parkinson's disease AND (nonpharmacological, alternative, balance, instability, posture, axial) (limits not mentioned)	NO	NO	NO	NO	YES 2015
Cwiekala-Lewis et al., 2017	YES	NO No protocol	YES Any design	PARTIAL YES	YES 6: PubMed, CINAHL, Web of Science, Cochrane, PsycINFO, Embase	YES (tai ji OR Tai Chi) AND Parkinson Disease (limit: English)	NO	NO	NO	NO	YES 2015
Wu et al., 2017	YES	NO No protocol	YES Any design	PARTIAL YES	YES 5: PubMed, CINAHL, Cochrane, PsycINFO, Scopus	YES PD AND (PA OR exercise) AND Depression (limit: English)	NO	NO	NO	NO	YES 2017
Systematic review with meta-analysis											
Ni et al., 2014	YES	YES PROSPE RO	YES RCT	PARTIAL YES	YES 8: PubMed, Embase, Cochrane, CBD, CNKI, VIP Journal Integration Platform, Wanfang Med Online, Japan Medical Abstracts Society	YES (Tai Chi, Tai Ji, T'ai Chi, Taijiquan) AND (Parkinson disease, Parkinson's disease, Primary Parkinsonism, Paralysis Agitans) (no limits)	NO	YES ClinicalTrials.gov, Chinese Clinical Trial Registry	NO	YES Searched Google Scholar	YES 2013
Yang et al., 2014	YES	NO No protocol	YES RCT, non- RCT	PARTIAL YES	YES 6: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD	YES (Parkinson's disease or Parkinson) AND (Tai Chi or taiji or shadowboxing) (limit: English, Chinese)	YES	YES WHO ICTRP	NO	YES Dissertations	YES 2014
Yang et al., 2015	YES	NO No protocol	YES RCT, non- RCT	PARTIAL YES	YES 7: PubMed, EMBASE, Medline, Cochrane, CKRID, WDCTP, WFD	YES (Parkinson, Parkinson's disease, Parkinsonism) AND (traditional Chinese medical exercise, Tai Chi, Qigong, Wuqinxi, Baduanjin and Yijinjing) (limit: English, Chinese)	NO	YES WHO ICTRP	YES Contacted experts	YES Dissertations	YES 2014

Review	Item 1. PICO	Item 2. Review protocol	Item 3. Study designs	Item 4. Search strategy							
				Overall rating	Databases (at least 2)	Search terms (limits)	Reference lists	Trial/study registries	Content experts	Grey literature	Search < 24 months
Zhou et al., 2015	YES	NO No protocol	YES RCT	YES	YES 6: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD	YES (Parkinson, Parkinson's disease, Parkinsonism) AND (Tai Chi, Taiji or shadow boxing) (limit: English, Chinese)	YES	YES WHO ICTRP	YES Contacted experts vis email	YES Dissertations	YES 2014
Kwok et al., 2016	YES	NO No protocol	YES RCT, non- RCT	PARTIAL YES	YES 4: EMBASE, Medline, PsycInfo, Cochrane	YES Parkinson AND (Tai Chi or mind-body) (limit: English)	YES	NO	NO	YES Abstracts	YES 2016
Song et al., 2017	YES	NO No protocol	YES Any design	PARTIAL YES	YES 7: Pubmed, CINAHL, Web of Science, ProQuest Central, Science Direct, Scopus, Cochrane	YES Parkinson's disease AND (Tai Chi OR Taiji) (limit: English)	YES	NO	NO	NO	YES 2016

Note. The same table is also shown in the Supplementary Information File, Table A.1 (Kedzior & Kaplan, 2019).

Abbreviations: AMED, Allied and Complementary Medicine Database; AMSTAR2, A Measurement Tool to Assess Systematic Reviews, version 2; BNI, British Nursing Index; CBD, Chinese Biomedical Database; CINAHL, Cumulative Index to Nursing and Allied Health Literature; CKRID, China Knowledge Resource Integrated Database; CNKI, China National Knowledge Infrastructure; *k*, number of systematic reviews; PICO, Population, Intervention, Control group, Outcome; WDCTP, Weipu Database for Chinese Technical Periodicals; WFD, Wan Fang Data; WHO ICTRP, World Health Organisation International Clinical Trials Registry Platform.

Table S5. Assessment of AMSTAR2 items 5 to 11 in $k = 10$ systematic reviews

Review	Item 5. Study selection in duplicate	Item 6. Data extraction in duplicate	Item 7. Excluded studies: list/ justification shown	Item 8. Included studies: detailed study characteristics	Item 9. RoB: appropriate assessment^a	Item 10. Primary study funding reported	Item 11. Meta-analysis: appropriate methods
Systematic review							
Lee et al., 2008	NO	YES 2 assessors	YES table 2, p. 590	YES table 3, p. 591	YES Modified Jadad scale	NO	No meta-analysis
Sumec et al., 2015	NO	NO	NO	PARTIAL YES Study designs, control groups not described (table 1, p. 3-6)	YES Class of Evidence	NO	No meta-analysis
Cwiekala-Lewis et al., 2017	NO	YES 2 assessors of study quality	NO	YES table 1, p. 417-419	YES Quality Index	NO	No meta-analysis
Wu et al., 2017	NO	YES 2+ assessors	NO	PARTIAL YES Sample size per group unclear (table 2, p. 6)	YES Modified Jadad scale, Class of Evidence	NO	No meta-analysis
Systematic review with meta-analysis							
Ni et al., 2014	YES 2 assessors	YES 2 assessors	NO	YES Control groups (table 2, p. 5) not linked to group characteristics (table 1, p. 4)	YES Cochrane Risk of Bias	NO	NO Unstandardized mean difference; studies not independent; unclear how baseline incorporated in meta-analysis
Yang et al., 2014	YES 2 assessors	YES 2 assessors	NO	YES table 1, p. 3	YES Cochrane Risk of Bias	NO	NO Studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis
Yang et al., 2015	YES 2 assessors	YES 2 assessors	NO	YES table 1, p. 6-7	YES PEDro Scale	NO	NO Unclear how baseline incorporated in meta-analysis
Zhou et al., 2015	YES 2 assessors	YES 2 assessors	NO	YES table 1, p. 4	YES PEDro Scale	NO	NO Studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis
Kwok et al., 2016	NO	YES 2 assessors of study quality	NO	YES table 1, p. 126-127	YES EPHPP	NO	NO Fixed-effect model; studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis
Song et al., 2017	YES 2 assessors	YES 2 assessors	NO	YES table 1, p. 7	YES Cochrane Risk of Bias	NO	NO Fixed-effect model; studies not independent; unclear how baseline incorporated in meta-analysis

Note. ^aAll reviews included either single-blind (randomised or non-randomised) studies or observational studies. The AMSTAR2 scoring guidelines were adjusted and item 9 was scored YES if any tool was used to assess the risk of bias and/or the quality of the primary studies. The same table is also shown in the Supplementary Information File, Table A.2 (Kedzior & Kaplan, 2019). Table, figure, and page numbers refer to the locations in reviews listed in this table.

Abbreviations: AMSTAR2, A Measurement Tool to Assess Systematic Reviews, version 2; EPHPP, Effective Public Health Practice Project quality assessment tool; k , number of systematic reviews; PEDro, Physiotherapy Evidence Database; RoB, Risk of Bias.

Table S6. Assessment of AMSTAR2 items 12 to 16 in $k = 10$ systematic reviews

Review	Item 12. Meta-analysis: impact of RoB on results	Item 13. RoB: included in conclusions	Item 14. Heterogeneity among results explained	Item 15. Meta-analysis: publication bias assessed	Item 16. Conflict of interest stated
Systematic review					
Lee et al., 2008	No meta-analysis	YES Results: Quality/study (table 3, p. 591), quality all studies (p. 592); Discussion: Quality as a limitation (p. 592)	YES Discussion (p. 593)	No meta-analysis	NO
Sumec et al., 2015	No meta-analysis	NO	YES Discussion (p. 10)	No meta-analysis	YES
Cwiekala-Lewis et al., 2017	No meta-analysis	YES Results: Quality/study (table 1, p. 417-419); quality all studies (p. 416); Discussion: Quality as a limitation (p. 420)	YES Discussion (p. 420)	No meta-analysis	YES
Wu et al., 2017	No meta-analysis	NO Results: Quality/study (table 1, p. 5); quality all studies (p. 5)	NO	No meta-analysis	YES
Systematic review with meta-analysis					
Ni et al., 2014	YES All RCTs	YES Results: Quality/study (figure 2, p. 6), quality all studies (text p. 3, 5); Discussion: Quality as a limitation (p. 1, 10)	NO	NO	YES
Yang et al., 2014	NO Non-RCTs included	NO Results: Quality/study (figure 2, p. 4), quality all studies (text p. 4-5)	YES Discussion (p. 8)	NO	YES
Yang et al., 2015	NO Non-RCTs included	YES Results: Quality/study (table 2, p. 8), quality all studies (text p. 4); Discussion: Quality as a limitation (p. 14)	YES Discussion (p. 14)	NO	YES
Zhou et al., 2015	YES All RCTs	YES Results: Quality/study (table 2, p. 5), quality all studies (text p. 2); Discussion: Quality as a limitation (p. 6-7)	YES Discussion (p. 7)	NO	YES
Kwok et al., 2016	NO Non-RCTs included	YES Results: Quality/study (table 2, p. 128), quality all studies (text p. 129); Discussion: Quality as a limitation (p. 131)	NO	NO	YES
Song et al., 2017	NO Non-RCTs included	YES Results: Quality/study (table 2, p. 7), quality all studies (text p. 5); Discussion: Quality as a limitation (p. 11)	YES Results (I^2 investigated in subgroup analyses); Discussion (p. 11)	NO Funnel plots used but not shown	YES

Note. The same table is also shown in the Supplementary Information File, Table A.3 (Kedzior & Kaplan, 2019). Table, figure, and page numbers refer to the locations in reviews listed in this table. Abbreviations. AMSTAR2, A Measurement Tool to Assess Systematic Reviews, version 2; k , number of systematic reviews; RCT, randomised controlled trial; RoB, Risk of Bias.

Table S7. AMSTAR2 scores for $k = 10$ systematic reviews

Review	Item 1. PICO	Item 2 ^a . Review protocol	Item 3. Study designs	Item 4 ^a . Literature search	Item 5. Duplicate study selection	Item 6. Duplicate data coding	Item 7 ^a . List of excluded studies	Item 8. Study details	Item 9 ^a . RoB assessed	Item 10. Funding primary studies	Item 11 ^a . Appropriate data synthesis (meta-analysis)	Item 12. Impact of RoB on results of meta-analysis assessed	Item 13 ^a . Impact of RoB discussed	Item 14. Heterogeneity in results	Item 15 ^a . Publication bias (meta-analysis)	Item 16. Funding/conflict of interest review	Total Yes	Total Partial Yes	Total No (Critical No)	Overall confidence in review
Systematic review																	/13	/13	/13	
Lee et al., 2008	YES	NO	YES	PART. YES	NO	YES	YES	YES	YES	NO	No MA	No MA	YES	YES	No MA	NO	8	1	4 (1)	Low
Sumec et al., 2015	NO	NO	NO	PART. YES	NO	NO	NO	PART. YES	YES	NO	No MA	No MA	NO	YES	No MA	YES	3	2	8 (3)	Critically low
Cwiekala-Lewis et al., 2017	YES	NO	YES	PART. YES	NO	YES	NO	YES	YES	NO	No MA	No MA	YES	YES	No MA	YES	8	1	4 (2)	Critically low
Wu et al., 2017	YES	NO	YES	PART. YES	NO	YES	NO	PART. YES	YES	NO	No MA	No MA	NO	NO	No MA	YES	5	2	6 (3)	Critically low
Systematic review with meta-analysis																	/16	/16	/16	
Ni et al., 2014	YES	YES	YES	PART. YES	YES	YES	NO	YES	YES	NO	NO	YES	YES	NO	NO	YES	10	1	5 (3)	Critically low
Yang et al., 2014	YES	NO	YES	PART. YES	YES	YES	NO	YES	YES	NO	NO	NO	NO	YES	NO	YES	8	1	7 (5)	Critically low
Yang et al., 2015	YES	NO	YES	PART. YES	YES	YES	NO	YES	YES	NO	NO	NO	YES	YES	NO	YES	9	1	6 (4)	Critically low
Zhou et al., 2015	YES	NO	YES	YES	YES	YES	NO	YES	YES	NO	NO	YES	YES	YES	NO	YES	11	0	5 (4)	Critically low
Kwok et al., 2016	YES	NO	YES	PART. YES	NO	YES	NO	YES	YES	NO	NO	NO	YES	NO	NO	YES	7	1	8 (4)	Critically low
Song et al., 2017	YES	NO	YES	PART. YES	YES	YES	NO	YES	YES	NO	NO	NO	YES	YES	NO	YES	9	1	6 (4)	Critically low

Note. A version of this table is also shown in Kedzior & Kaplan, 2019, Table 3, p. 148. ^aCritical domain items for rating of review quality (overall confidence in the results of the review).

Abbreviations: AMSTAR2, A Measurement Tool to Assess Systematic Reviews, version 2; k , number of systematic reviews; MA, meta-analysis; part, partial; PICO, Population, Intervention, Control group, Outcome; RoB, Risk of Bias.

Table S8. Comparison between AMSTAR and AMSTAR2 on the individual items

Item content	AMSTAR (A)		AMSTAR2 (B)		Agreement AMSTAR vs. AMSTAR2
	Item	% Yes	Item	% Yes and Partial Yes	
1. Review preparation					
PICO	-	-	I1B	90%	-
Protocol	I1A	10%	I2B	10%	YES (100%)
Study designs	-	-	I3B	90%	-
2. Data search and selection					
Literature search	I3A	100%	I4B	100%	YES (100%)
Grey literature included	I4A	60%	-	-	Item included in I4
Duplicate study selection	I2A	50% (double-barreled item: 50% Yes duplicate study selection <i>and</i> data coding)	I5B	50%	YES (100%)
3. Data coding					
Duplicate data coding	I2A	50% (double-barreled item: 50% Yes duplicate study selection <i>and</i> data coding +40% duplicate data coding but unclear study selection)	I6B	90%	YES (100%)
List of excluded studies provided	I5A	100% (double-barreled item: 90% Yes List of included studies only, 10% List of included <i>and</i> excluded studies)	I7B	10%	YES (100%)
Study details reported	I6A	80%+20% Can't Answer due to incomplete study details	I8B	100% (80% Yes, 20% Partial Yes)	YES (100%)
RoB conducted	I7A	100%	I9B	100%	YES (100%)
Funding for primary studies reported	-	-	I10B	0%	-
4. Data synthesis					
Appropriate data synthesis (any)	I9A	20%	-	-	-
Appropriate data synthesis (meta-analysis)	-	-	I11B	0% (meta-analysis)	-
RoB in results	-	-	I12B	20%	-
RoB in discussion	I8A	70%	I13B	70%	YES (100%)
Heterogeneity in results	-	-	I14B	70%	-
Publication bias (any)	I10A	10%	-	-	-
Publication bias (meta-analysis)	-	-	I15B	0%	-
5. Conflict of interest statement					
Funding/conflict of interest for review reported	I11A	90%	I16B	90%	YES (100%)

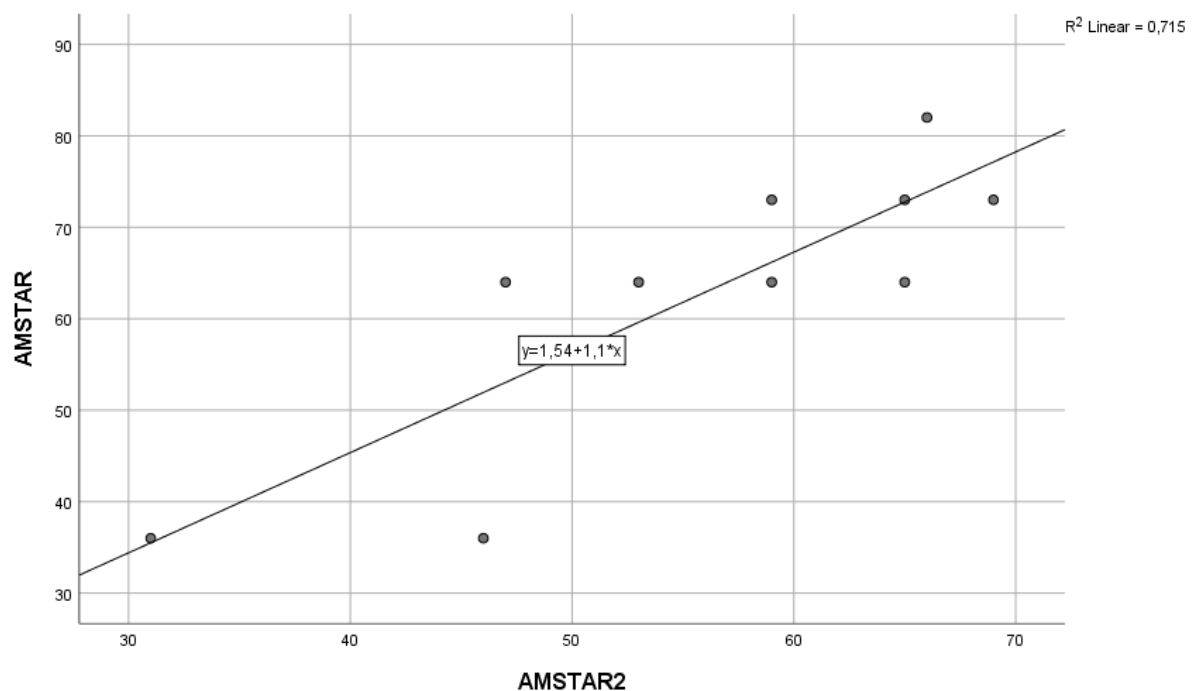
Note. Abbreviations: AMSTAR, A Measurement Tool to Assess Systematic Reviews (original and revised version 2); I, item (A refers to items on AMSTAR, B refers to items on AMSTAR2); *k*, number of systematic reviews; PICO, Patient, Intervention, Control, Outcome; RoB, Risk of Bias.

Table S9. Comparison between AMSTAR and AMSTAR2 on Yes and Partial Yes ratings

	first author	year	AMSTAR	AMSTAR2	AMSTAR_abs	AMSTAR2_abs
1	Lee	2008	73	65	8	8,5
2	Sumec	2015	36	31	4	4,0
3	Cwekala-Lewis	2017	64	65	7	8,5
4	Wu	2017	36	46	4	6,0
5	Ni	2014	82	66	9	10,5
6	Yang	2014	64	53	7	8,5
7	Yang	2015	73	59	8	9,5
8	Zhou	2015	73	69	8	11,0
9	Kwok	2016	64	47	7	7,5
10	Song	2017	64	59	7	9,5

Note. The table shows the total Yes and Partial Yes scores (absolute sums or percentage scores out of the total number of items per scale) assigned to the same $k = 10$ systematic reviews on AMSTAR and AMSTAR2. Variables: AMSTAR: percentage score = sum of Yes (1 point) / 11 points * 100; AMSTAR2: percentage score = sum of Yes (1 point) + Partial Yes (.5 point) / 13 * 100 (for systematic reviews) or / 16 * 100 (for systematic reviews with meta-analysis); AMSTAR_abs: absolute sum of Yes; AMSTAR2_abs: absolute sum of Yes + Partial Yes. Abbreviations: AMSTAR, A Measurement Tool to Assess Systematic Reviews (original and revised version 2); k , number of systematic reviews.

Figure S1. Relationship between AMSTAR and AMSTAR2 percentage scores



Correlations

		AMSTAR	AMSTAR2
AMSTAR	Pearson Correlation	1	,845**
	Sig. (2-tailed)		,002
	N	10	10
AMSTAR2	Pearson Correlation	,845**	1
	Sig. (2-tailed)	,002	
	N	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

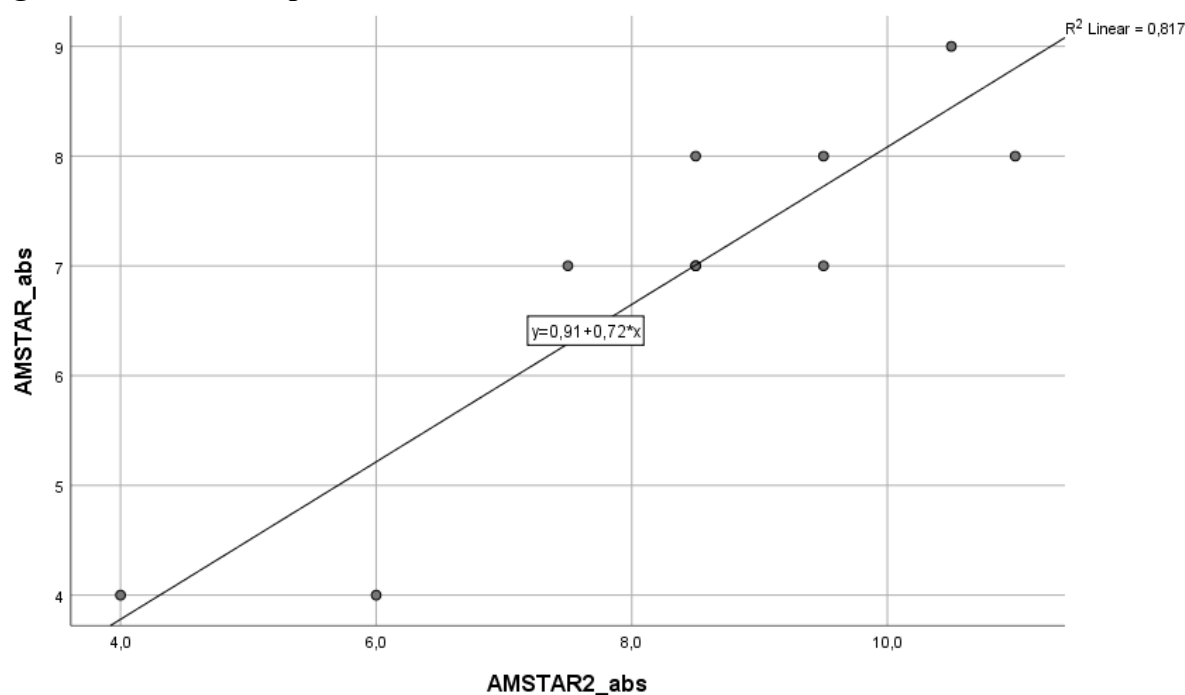
Correlations

			AMSTAR	AMSTAR2
Spearman's rho	AMSTAR	Correlation Coefficient	1,000	,844**
		Sig. (2-tailed)	.	,002
		N	10	10
	AMSTAR2	Correlation Coefficient	,844**	1,000
		Sig. (2-tailed)	,002	.
		N	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

Note. The figure shows the relationship between the total Yes and Partial Yes scores (percentage values) assigned to the same $k = 10$ systematic reviews on AMSTAR and AMSTAR2 (data reported in Table S9). Abbreviations: AMSTAR, A Measurement Tool to Assess Systematic Reviews (original and revised version 2); k , number of systematic reviews.

Figure S2. Relationship between AMSTAR and AMSTAR2 absolute scores



Correlations

		AMSTAR_abs	AMSTAR2_abs
AMSTAR_abs	Pearson Correlation	1	,904**
	Sig. (2-tailed)		,000
	N	10	10
AMSTAR2_abs	Pearson Correlation	,904**	1
	Sig. (2-tailed)	,000	
	N	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

Correlations

			AMSTAR_abs	AMSTAR2_abs
Spearman's rho	AMSTAR_abs	Correlation Coefficient	1,000	,829**
		Sig. (2-tailed)	.	,003
		N	10	10
	AMSTAR2_abs	Correlation Coefficient	,829**	1,000
		Sig. (2-tailed)	,003	.
		N	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

Note. The figure shows the relationship between the total Yes and Partial Yes scores (absolute sums) assigned to the same $k = 10$ systematic reviews on AMSTAR and AMSTAR2 (data reported in Table S9). Abbreviations: AMSTAR, A Measurement Tool to Assess Systematic Reviews (original and revised version 2); k , number of systematic reviews.

References

- Cwiekala-Lewis, K. J., Gallek, M., & Taylor-Piliae, R. E. (2017). The effects of Tai Chi on physical function and well-being among persons with Parkinson's Disease: A systematic review. *Journal of Bodywork and Movement Therapies*, 21(2), 414-421. doi: 10.1016/j.jbmt.2016.06.007
- Kedzior, K., & Kaplan, I. (2019). Tai Chi and Parkinson's disease (PD): a systematic overview of the scientific quality of the past systematic reviews. *Complementary Therapies in Medicine*, 46, 144-152. doi: 10.1016/j.ctim.2019.08.008
- Kwok, J. Y., Choi, K. C., & Chan, H. Y. (2016). Effects of mind-body exercises on the physiological and psychosocial well-being of individuals with Parkinson's disease: A systematic review and meta-analysis. *Complementary Therapies in Medicine*, 29, 121-131. doi: 10.1016/j.ctim.2016.09.016
- Lee, M. S., Lam, P., & Ernst, E. (2008). Effectiveness of tai chi for Parkinson's disease: a critical review. *Parkinsonism & Related Disorders*, 14(8), 589-594. doi: 10.1016/j.parkreldis.2008.02.003
- Ni, X., Liu, S., Lu, F., Shi, X., & Guo, X. (2014). Efficacy and safety of Tai Chi for Parkinson's disease: a systematic review and meta-analysis of randomized controlled trials. *PLoS One*, 9(6), e99377. doi: 10.1371/journal.pone.0099377
- Song, R., Grabowska, W., Park, M., Osypiuk, K., Vergara-Diaz, G. P., Bonato, P., Hausdorff, J. M., Fox, M., Sudarsky, L. R., Macklin, E., & Wayne, P. M. (2017). The impact of Tai Chi and Qigong mind-body exercises on motor and non-motor function and quality of life in Parkinson's disease: A systematic review and meta-analysis. *Parkinsonism & Related Disorders*, 41, 3-13. doi: 10.1016/j.parkreldis.2017.05.019
- Sumec, R., Filip, P., Sheardova, K., & Bares, M. (2015). Psychological benefits of nonpharmacological methods aimed for improving balance in Parkinson's disease: A systematic review. *Behavioural Neurology*, 620674. doi: 10.1155/2015/620674
- Wu, P. L., Lee, M., & Huang, T. T. (2017). Effectiveness of physical activity on patients with depression and Parkinson's disease: A systematic review. *PLoS One*, 12(7), e0181515. doi: 10.1371/journal.pone.0181515
- Yang, Y., Li, X. Y., Gong, L., Zhu, Y. L., & Hao, Y. L. (2014). Tai Chi for improvement of motor function, balance and gait in Parkinson's disease: a systematic review and meta-analysis. *PLoS One*, 9(7), e102942. doi: 10.1371/journal.pone.0102942
- Yang, Y., Qiu, W. Q., Hao, Y. L., Lv, Z. Y., Jiao, S. J., & Teng, J. F. (2015). The efficacy of traditional Chinese Medical Exercise for Parkinson's disease: a systematic review and meta-analysis. *PLoS One*, 10(4), e0122469. doi: 10.1371/journal.pone.0122469
- Zhou, J., Yin, T., Gao, Q., & Yang, X. C. (2015). A meta-analysis on the efficacy of Tai Chi in patients with Parkinson's disease between 2008 and 2014. *Evidence-Based Complementary and Alternative Medicine*, 593263. doi: 10.1155/2015/593263