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

<table>
<thead>
<tr>
<th>Review</th>
<th>Item 1. Was an ‘a priori’ design provided?</th>
<th>Item 2. Was there duplicate study selection and data extraction?</th>
<th>Item 3. Was a comprehensive literature search performed?</th>
<th>Item 4. Was the status of publication (grey literature) used as an inclusion criterion?</th>
<th>Item 5. Was a list of studies (included and excluded) provided?</th>
<th>Item 6. Were the characteristics of the included studies provided?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 2: Sumec et al., 2015</td>
<td>NO</td>
<td>CAN’T ANSWER</td>
<td>YES</td>
<td>Parkinson’s disease AND (nonpharmacological, alternative, balance, instability, posture, axial)</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Review 3: Cwiekala-Lewis et al., 2017</td>
<td>NO</td>
<td>CAN’T ANSWER</td>
<td>YES</td>
<td>(“tai ji” or “Tai Chi”) AND “Parkinson Disease”</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Review 4: Wu et al., 2017</td>
<td>NO</td>
<td>CAN’T ANSWER</td>
<td>YES</td>
<td>PD AND (PA or exercise) AND Depression</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Systematic review

<table>
<thead>
<tr>
<th>Review</th>
<th>Item 1. Was an ‘a priori’ design provided?</th>
<th>Item 2. Was there duplicate study selection and data extraction?</th>
<th>Item 3. Was a comprehensive literature search performed?</th>
<th>Item 4. Was the status of publication (grey literature) used as an inclusion criterion?</th>
<th>Item 5. Was a list of studies (included and excluded) provided?</th>
<th>Item 6. Were the characteristics of the included studies provided?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 2: Sumec et al., 2015</td>
<td>NO</td>
<td>CAN’T ANSWER</td>
<td>YES</td>
<td>Parkinson’s disease AND (nonpharmacological, alternative, balance, instability, posture, axial)</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Review 3: Cwiekala-Lewis et al., 2017</td>
<td>NO</td>
<td>CAN’T ANSWER</td>
<td>YES</td>
<td>(“tai ji” or “Tai Chi”) AND “Parkinson Disease”</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Review 5: Ni et al., 2014</td>
<td>YES</td>
<td>2 assessors for search and risk of bias</td>
<td>YES</td>
<td>8 databases: PubMed, Embase, Cochrane, Chinese Biomedical Database, China National Knowledge Infrastructure, VIP Journal Integration Platform, Wanfang Med Online, Japan Medical, Abstracts Society</td>
<td>YES</td>
<td>(Tai Chi, Tai Ji, T’ai Chi, Taijiquan) AND (Parkinson disease, Parkinson’s disease, Primary Parkinsonism, Paralysis Agitans)</td>
</tr>
<tr>
<td>Review 6: Yang et al., 2014</td>
<td>NO</td>
<td>No protocol</td>
<td>YES</td>
<td>Search, study selection, data extraction: 2 assessors</td>
<td>YES</td>
<td>6 databases: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD</td>
</tr>
<tr>
<td>Review 7: Yang et al., 2015</td>
<td>NO</td>
<td>No protocol</td>
<td>YES</td>
<td>Study selection, data extraction: 2 assessors</td>
<td>YES</td>
<td>7 databases: PubMed, EMBASE, Medline, Cochrane, CKRID, WDCTP, WFD</td>
</tr>
<tr>
<td>Review 8: Zhou et al., 2015</td>
<td>NO</td>
<td>No protocol</td>
<td>YES</td>
<td>Study selection, data extraction: 2 assessors</td>
<td>YES</td>
<td>6 databases: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD</td>
</tr>
<tr>
<td>Review 9: Kwok et al., 2016</td>
<td>NO</td>
<td>No protocol</td>
<td>CAN’T ANSWER</td>
<td>Study selection unclear; data extraction: 2 assessors</td>
<td>YES</td>
<td>4 databases: EMBASE, Medline, PsyInfo, Cochrane</td>
</tr>
<tr>
<td>Review 10: Song et al., 2017</td>
<td>NO</td>
<td>No protocol</td>
<td>YES</td>
<td>Study selection, data extraction: 2 assessors</td>
<td>YES</td>
<td>7 databases: Pubmed, CINAHL, Web of Science, ProQuest Central, Science Direct, Scopus, Cochrane; hand search of reference lists</td>
</tr>
</tbody>
</table>

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

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

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

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

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).

*Item 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>
<thead>
<tr>
<th>Review</th>
<th>Item 1. PICO</th>
<th>Item 2. Review protocol</th>
<th>Item 3. Study designs</th>
<th>Item 4. Search strategy</th>
<th>Overall rating</th>
<th>Databases (at least 2)</th>
<th>Search terms (limits)</th>
<th>Reference lists</th>
<th>Trial/study registries</th>
<th>Content experts</th>
<th>Grey literature</th>
<th>Search &lt; 24 months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Systematic review</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lee et al., 2008</td>
<td>YES</td>
<td>NO protocol</td>
<td>YES</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>21: Medline, AMED, BNI, PsyInfo, CINAHL, EMBASE, Scopus, Cochrane, 6 Korean, 5 Chinese, 2 Japanese</td>
<td>(tai chi OR taiji OR shadow boxing) AND Parkinson disease (no limits)</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>Dissertations, conference abstracts</td>
</tr>
<tr>
<td>Sumeec et al., 2015</td>
<td>NO Control unclear</td>
<td>NO protocol</td>
<td>NO</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>PubMed, Web of Science, EBSO</td>
<td>Parkinson’s disease AND (nonpharmacological, alternative, balance, instability, posture, axial) (limits not mentioned)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Cwiekala-Lewis et al., 2017</td>
<td>YES</td>
<td>NO protocol</td>
<td>YES</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>6: PubMed, CINAHL, Web of Science, Cochrane, PsycINFO, Embase</td>
<td>(tai ji OR Tai Chi) AND Parkinson Disease (limit: English)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Wu et al., 2017</td>
<td>YES</td>
<td>NO protocol</td>
<td>YES</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>5: PubMed, CINAHL, Cochrane, PsycINFO, Scopus</td>
<td>PD AND (PA OR exercise) AND Depression (limit: English)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Systematic review with meta-analysis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yang et al., 2014</td>
<td>YES</td>
<td>NO protocol</td>
<td>YES</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>6: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD</td>
<td>Parkinson’s disease or Parkinson) AND (Tai Chi or taiji or shadowboxing) (limit: English, Chinese)</td>
<td>YES</td>
<td>YES</td>
<td>WHO ICTR</td>
<td>YES</td>
<td>Dissertations</td>
</tr>
<tr>
<td>Yang et al., 2015</td>
<td>YES</td>
<td>NO protocol</td>
<td>YES</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>7: PubMed, EMBASE, Medline, Cochrane, CKRID, WDCTP, WFD</td>
<td>Parkinson, Parkinson’s disease, Parkinsonism) AND (traditional Chinese medical exercise, Tai Chi, Qigong, Wuqinxih, Baduanjin and Yijing) (limit: English, Chinese)</td>
<td>NO</td>
<td>YES</td>
<td>WHO ICTR</td>
<td>YES</td>
<td>Contacted experts</td>
</tr>
<tr>
<td>Review</td>
<td>Item 1. PICO</td>
<td>Item 2. Review protocol</td>
<td>Item 3. Study designs</td>
<td>Item 4. Search strategy</td>
<td>Overall rating</td>
<td>Databases (at least 2)</td>
<td>Search terms (limits)</td>
<td>Reference lists</td>
<td>Trial/study registries</td>
<td>Content experts</td>
<td>Grey literature</td>
<td>Search &lt; 24 months</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>----------------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Zhou et al., 2015</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>6: PubMed, EMBASE, Cochrane, CKRID, WDCTP, WFD</td>
<td>(Parkinson, Parkinson’s disease, Parkinsonism AND (Tai Chi, Taiji or shadow boxing) (limit: English, Chinese))</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Kwok et al., 2016</td>
<td>YES</td>
<td>NO</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>YES</td>
<td>4: EMBASE, Medline, PsycInfo, Cochrane</td>
<td>Parkinson AND (Tai Chi or mind-body) (limit: English)</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Song et al., 2017</td>
<td>YES</td>
<td>NO</td>
<td>PARTIAL YES</td>
<td>YES</td>
<td>YES</td>
<td>7: Pubmed, CINAHL, Web of Science, ProQuest Central, Science Direct, Scopus, Cochrane</td>
<td>Parkinson’s disease AND (Tai Chi OR Taiji) (limit: English)</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee et al., 2008</td>
<td>NO</td>
<td>YES 2 assessors</td>
<td>YES table 2, p. 590</td>
<td>YES table 3, p. 591</td>
<td>YES Modified Jadad scale</td>
<td>NO</td>
<td>No meta-analysis</td>
</tr>
<tr>
<td>Sumec et al., 2015</td>
<td>NO</td>
<td>NO</td>
<td>NO PARTIAL YES</td>
<td>NO PARTIAL YES</td>
<td>NO Class of Evidence</td>
<td>NO</td>
<td>No meta-analysis</td>
</tr>
<tr>
<td>Cwikala-Lewis et al., 2017</td>
<td>NO</td>
<td>YES 2 assessors of study quality</td>
<td>NO YES table 1, p. 417-419</td>
<td>YES Quality Index</td>
<td>NO</td>
<td>NO</td>
<td>No meta-analysis</td>
</tr>
<tr>
<td>Wu et al., 2017</td>
<td>NO</td>
<td>YES 2+ assessors</td>
<td>NO PARTIAL YES</td>
<td>NO PARTIAL YES</td>
<td>YES Modified Jadad scale</td>
<td>NO</td>
<td>No meta-analysis</td>
</tr>
<tr>
<td>Ni et al., 2014</td>
<td>YES 2 assessors</td>
<td>YES 2 assessors</td>
<td>NO YES Control groups (table 2, p. 5)</td>
<td>NO Control groups (table 2, p. 5)</td>
<td>YES Cochrane Risk of Bias</td>
<td>NO</td>
<td>Unstandardized mean difference; studies not independent; unclear how baseline incorporated in meta-analysis</td>
</tr>
<tr>
<td>Yang et al., 2014</td>
<td>YES 2 assessors</td>
<td>YES 2 assessors</td>
<td>NO YES Control groups (table 2, p. 5)</td>
<td>NO Control groups (table 2, p. 5)</td>
<td>YES Cochrane Risk of Bias</td>
<td>NO</td>
<td>Studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis</td>
</tr>
<tr>
<td>Yang et al., 2015</td>
<td>YES 2 assessors</td>
<td>YES 2 assessors</td>
<td>NO YES Control groups (table 2, p. 5)</td>
<td>NO Control groups (table 2, p. 5)</td>
<td>YES PEDrO Scale</td>
<td>NO</td>
<td>Unclear how baseline incorporated in meta-analysis</td>
</tr>
<tr>
<td>Zhou et al., 2015</td>
<td>YES 2 assessors</td>
<td>YES 2 assessors</td>
<td>NO YES Control groups (table 2, p. 5)</td>
<td>NO Control groups (table 2, p. 5)</td>
<td>YES PEDrO Scale</td>
<td>NO</td>
<td>Studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis</td>
</tr>
<tr>
<td>Kwok et al., 2016</td>
<td>NO</td>
<td>YES 2 assessors of study quality</td>
<td>NO YES Control groups (table 2, p. 5)</td>
<td>NO Control groups (table 2, p. 5)</td>
<td>YES EPHPP</td>
<td>NO</td>
<td>Fixed-effect model; studies in subgroup analyses not independent; unclear how baseline incorporated in meta-analysis</td>
</tr>
<tr>
<td>Song et al., 2017</td>
<td>YES 2 assessors</td>
<td>YES 2 assessors</td>
<td>NO YES Control groups (table 2, p. 5)</td>
<td>NO Control groups (table 2, p. 5)</td>
<td>YES EPHPP</td>
<td>NO</td>
<td>Fixed-effect model; studies not independent; unclear how baseline incorporated in meta-analysis</td>
</tr>
</tbody>
</table>

Note. *All 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>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee et al., 2008</td>
<td>No meta-analysis</td>
<td>YES</td>
<td>YES</td>
<td>No meta-analysis</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Results: Quality/study (table 3, p. 591), quality all studies (p. 592); Discussion: Quality as a limitation (p. 592)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumec et al., 2015</td>
<td>No meta-analysis</td>
<td>NO</td>
<td>YES</td>
<td>No meta-analysis</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Results: Quality/study (table 1, p. 417-419); quality all studies (p. 416); Discussion: Quality as a limitation (p. 420)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cwiekala-Lewis et al., 2017</td>
<td>No meta-analysis</td>
<td>YES</td>
<td>YES</td>
<td>No meta-analysis</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Results: Quality/study (table 1, p. 5); quality all studies (p. 5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systematic review with meta-analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ni et al., 2014</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>All RCTs</td>
<td>Results: Quality/study (figure 2, p. 6), quality all studies (text p. 3, 5); Discussion: Quality as a limitation (p. 1, 10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yang et al., 2014</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Non-RCTs included</td>
<td>Results: Quality/study (figure 2, p. 4), quality all studies (text p. 4-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yang et al., 2015</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Non-RCTs included</td>
<td>Results: Quality/study (table 2, p. 8), quality all studies (text p. 4); Discussion: Quality as a limitation (p. 14)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zhou et al., 2015</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>All RCTs</td>
<td>Results: Quality/study (table 2, p. 5), quality all studies (text p. 2); Discussion: Quality as a limitation (p. 6-7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kwok et al., 2016</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Non-RCTs included</td>
<td>Results: Quality/study (table 2, p. 128), quality all studies (text p. 129); Discussion: Quality as a limitation (p. 131)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Song et al., 2017</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Non-RCTs included</td>
<td>Results: Quality/study (table 2, p. 7), quality all studies (text p. 5); Discussion: Quality as a limitation (p. 11)</td>
<td></td>
<td>Results ($I^2$ investigated in subgroup analyses); Discussion (p. 11)</td>
<td>Funnel plots used but not shown</td>
</tr>
</tbody>
</table>

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

Note. A version of this table is also shown in Kedzior & Kaplan, 2019, Table 3, p. 148. *Critical 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

<table>
<thead>
<tr>
<th>Item content</th>
<th>AMSTAR (A)</th>
<th></th>
<th>AMSTAR2 (B)</th>
<th>Agreement AMSTAR vs. AMSTAR2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item</td>
<td>% Yes</td>
<td>Item</td>
<td>% Yes and Partial Yes</td>
</tr>
<tr>
<td>1. Review preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PICO</td>
<td>-</td>
<td>-</td>
<td>11B</td>
<td>90%</td>
</tr>
<tr>
<td>Protocol</td>
<td>11A</td>
<td>10%</td>
<td>12B</td>
<td>10%</td>
</tr>
<tr>
<td>Study designs</td>
<td>-</td>
<td>-</td>
<td>13B</td>
<td>90%</td>
</tr>
<tr>
<td>2. Data search and selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature search</td>
<td>13A</td>
<td>100%</td>
<td>14B</td>
<td>100%</td>
</tr>
<tr>
<td>Grey literature included</td>
<td>14A</td>
<td>60%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Duplicate study selection</td>
<td>12A</td>
<td>50% (double-barreled item: 50% Yes duplicate study selection and data coding)</td>
<td>15B</td>
<td>50%</td>
</tr>
<tr>
<td>3. Data coding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duplicate data coding</td>
<td>12A</td>
<td>50% (double-barreled item: 50% Yes duplicate study selection and data coding +40% duplicate data coding but unclear study selection)</td>
<td>16B</td>
<td>90%</td>
</tr>
<tr>
<td>List of excluded studies provided</td>
<td>15A</td>
<td>100% (double-barreled item: 90% Yes List of included studies only, 10% List of included and excluded studies)</td>
<td>17B</td>
<td>10%</td>
</tr>
<tr>
<td>Study details reported</td>
<td>16A</td>
<td>80%+20% Can’t Answer due to incomplete study details</td>
<td>18B</td>
<td>100% (80% Yes, 20% Partial Yes)</td>
</tr>
<tr>
<td>RoB conducted</td>
<td>17A</td>
<td>100%</td>
<td>19B</td>
<td>100%</td>
</tr>
<tr>
<td>Funding for primary studies reported</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Data synthesis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate data synthesis (any)</td>
<td>19A</td>
<td>20%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Appropriate data synthesis (meta-analysis)</td>
<td>111B</td>
<td>0% (meta-analysis)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>RoB in results</td>
<td>-</td>
<td>-</td>
<td>112B</td>
<td>20%</td>
</tr>
<tr>
<td>RoB in discussion</td>
<td>18A</td>
<td>70%</td>
<td>113B</td>
<td>70%</td>
</tr>
<tr>
<td>Heterogeneity in results</td>
<td>-</td>
<td>-</td>
<td>114B</td>
<td>70%</td>
</tr>
<tr>
<td>Publication bias (any)</td>
<td>110A</td>
<td>10%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Publication bias (meta-analysis)</td>
<td>-</td>
<td>-</td>
<td>115B</td>
<td>0%</td>
</tr>
<tr>
<td>5. Conflict of interest statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding/conflict of interest for review reported</td>
<td>111A</td>
<td>90%</td>
<td>116B</td>
<td>90%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>first author</th>
<th>year</th>
<th>AMSTAR</th>
<th>AMSTAR2</th>
<th>AMSTAR_abs</th>
<th>AMSTAR2_abs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee</td>
<td>2008</td>
<td>73</td>
<td>65</td>
<td>8</td>
<td>9,5</td>
</tr>
<tr>
<td>Sumec</td>
<td>2015</td>
<td>36</td>
<td>31</td>
<td>4</td>
<td>4,0</td>
</tr>
<tr>
<td>Cwekala-Lewis</td>
<td>2017</td>
<td>64</td>
<td>65</td>
<td>7</td>
<td>8,5</td>
</tr>
<tr>
<td>Wu</td>
<td>2017</td>
<td>36</td>
<td>46</td>
<td>4</td>
<td>5,0</td>
</tr>
<tr>
<td>Ni</td>
<td>2014</td>
<td>82</td>
<td>66</td>
<td>9</td>
<td>10,5</td>
</tr>
<tr>
<td>Yang</td>
<td>2014</td>
<td>64</td>
<td>53</td>
<td>7</td>
<td>8,5</td>
</tr>
<tr>
<td>Yang</td>
<td>2015</td>
<td>73</td>
<td>59</td>
<td>8</td>
<td>9,5</td>
</tr>
<tr>
<td>Zhcu</td>
<td>2015</td>
<td>73</td>
<td>69</td>
<td>8</td>
<td>11,0</td>
</tr>
<tr>
<td>Kwok</td>
<td>2016</td>
<td>64</td>
<td>47</td>
<td>7</td>
<td>7,5</td>
</tr>
<tr>
<td>Song</td>
<td>2017</td>
<td>64</td>
<td>59</td>
<td>7</td>
<td>9,5</td>
</tr>
</tbody>
</table>

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

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

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


