Appendix D Results of quality assessments based on the Mixed Method Appraisal Tool (MMAT, 2018) for qualitative, quantitative and mixed methods studies (n=171). Y=Yes, N=No and CT= Can’t tell.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Study design** | **S1** | **S2**  | **1.1.** | **1.2.** | **1.3.** | **1.4.**  | **1.5.** | **2.1.** | **2.2.** | **2.3.** | **2.4.** | **2.5.** | **3.1.** | **3.2.** | **3.3.** | **3.4.** | **3.5.** | **4.1.** | **4.2.** | **4.3.** | **4.4.** | **4.5.** | **5.1.** | **5.2.** | **5.3.** | **5.4.** | **5.5.** | **Score** |
| Alberda et al., 2017 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Andreasen et al., 2018 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Beelen et al., 2017 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Breedveld-Peters et al., 2012 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Browne et al., 2021 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Burden et al., 2016 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Cooper et al., 2015 | 1. Qualitative study | Y | Y | Y | CT | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Dewey et al., 2008 | 1. Qualitative study | Y | Y | Y | CT | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Gillis et al., 2019 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Hazzard et al., 2021 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Herbert et al., 2017 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Hestevik et al., 2020 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Hestevik et al., 2020 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Hogan et al., 2019 | 1. Qualitative study | Y | Y | N | N | N | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0% |
| Holst et al., 2011 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Holst et al., 2013 | 1. Qualitative study | Y | Y | Y | Y | CT | CT | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Hulsbaek et al., 2022 | 1. Qualitative study | Y | Y | Y | N | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Keller et al., 2013 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Lambert et al. 2017 | 1. Qualitative study | Y | Y | Y | N | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Liljeberg et al., 2021 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Mb O Connell et al., 2017 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Merriweather et al., 2014 | 1. Qualitative study | Y | Y | CT | Y | Y | Y | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Sandmael et al., 2019 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Neo et al., 2020 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Olsson et al., 2002 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Puranen et al., 2015 | 1. Qualitative study | Y | CT | Y | N | N | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Rassmusen et al., 2020 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Rattray et al., 2020 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Reynolds et al., 2021 | 1. Qualitative study | Y | Y | Y | N | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Sadarangani et al., 2020 | 1. Qualitative study | Y | Y | Y | CT | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Short et al., 2015 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Sjogren et al., 2018 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Stow et al., 2018 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Vikstrom et al., 2021 | 1. Qualitative study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Aldhahir et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | N | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Allen et al., 2014 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Baldwin et al., 2011 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Bauer et al., 2005 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | CT | N | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Bauer et al., 2013 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Beck et al., 2002 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | CT | N | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Beck et al., 2009 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | CT | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Beck et al., 2013 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Berk et al., 2008 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | N | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Boisselier et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Bonnefoy et al., 2003 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Breedveld-Peters et al., 2012 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | CT | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Bruce et al., 2003 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | N | Y | CT | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Calder et al., 2018 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | N | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Calegari et al., 2011 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | CT | Y | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Cameron et al., 2011 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Cereda et al., 2015 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Daud et al., 2012 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| de Luis et al., 2008 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Faccio et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Fearon et al., 2003 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Fiatarone et al., 2000 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | N | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Forli et al., 2001 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Gazotti et al., 2003 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Gronstedt et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Hanani et al., 2018 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Hogan et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| Huang et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | CT | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Hüner et al., 2012 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Hulsbaek et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Hung et al., 2005 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | N | CT | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Ida et al., 2017 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | CT | Y | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Ishiki et al., 2013 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | CT | N | N | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Jackson et al., 2015 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | N | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Jeloka et al., 2013 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Jobse et al., 2015 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Karlsson et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Keithley et al. 2002 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Kong et al., 2018 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Kraft et al., 2012 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | CT | N | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0% |
| Lauque et al., 2000 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | N | Y | N | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Laviano et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Lawson et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Mayr et al., 2016 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 100% |
| McMurdo et al., 2009 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Miller et al., 2005 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Sandmael et al., 2017 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | N | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Palma-Milla et al., 2016 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | N | Y | Y | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Pastore et al., 2014 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Patursson et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Pison et al., 2011 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Planas et al., 2005 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Roberts et al., 2003 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Rondanelli et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | CT | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Salamon et al., 2018 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | CT | N | CT | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Sharma et al., 2002 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | CT | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Smith et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Solheim et al., 2017 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | N | Y | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Stange et al., 2013 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Steiner et al., 2003 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Storck et al., 2020 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | N | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Stow et al., 2015 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | CT | N | N | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20% |
| Tanaka et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| van der Berg et al., 2015 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| van der Meij et al., 2010 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | Y | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Verma et al., 2001 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | CT | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Vermeeren et al., 2004 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Wu et al., 2013 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | N | Y | N | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40% |
| Xie et al., 2021 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Zak et al., 2009 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | CT | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80% |
| Zhang et al., 2022 | 2. Randomized controlled trial | Y | Y |  |  |  |  |  | Y | Y | Y | N | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60% |
| Bell et al., 2014 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Bojesen et al., 2022 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | N | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 60% |
| Caglar et al., 2002 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Campbell et al., 2013 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Chapman et al., 2011 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Cornejo-Pareja et al., 2021 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Cruz-Jentoft et al., 2008 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| de Luis et al., 2015 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Grass et al., 2015 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Hertlein et al., 2018 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Hopanci Bicakli et al., 2017 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Imamura et al., 2021 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | N | Y |  |  |  |  |  |  |  |  |  |  | 60% |
| Jukkola et al., 2005 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Kobayashi et al., 2017 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Lambert et al., 2014 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | N | Y |  |  |  |  |  |  |  |  |  |  | 60% |
| Lammel Ricardi et al., 2013 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Lawson et al., 2000 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Liljeberg et al., 2019 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Lombard et al., 2014 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Malafarina et al., 2021 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Mantovani et al., 2004 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | N | Y |  |  |  |  |  |  |  |  |  |  | 60% |
| Martin et al., 2019 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Mayr et al., 2000 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| McCormick et al., 2007 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | CT | CT | N | N | Y |  |  |  |  |  |  |  |  |  |  | 20% |
| McDermott et al., 2003 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Meade et al., 2007 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | CT | CT | CT | N | Y |  |  |  |  |  |  |  |  |  |  | 20% |
| Neoh et al., 2020 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Olde Rikkert et al., 2015 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Percival et al., 2013 | 3. Non-randomized study | N | CT |  |  |  |  |  |  |  |  |  |  | Y | N | N | N | N |  |  |  |  |  |  |  |  |  |  | 20% |
| Previtali et al., 2020 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Schmidt et al., 2020 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | Y | N |  |  |  |  |  |  |  |  |  |  | 60% |
| Scott et al., 2009 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Seemer et al., 2021 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Seguy et al., 2020 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | Y | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Shirakawa et al., 2012 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | N | Y |  |  |  |  |  |  |  |  |  |  | 60% |
| Tanaka et al., 2018 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Trachootham et al., 2015 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | CT | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Verma et al., 2000 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Wall et al., 2020 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | N | N | Y |  |  |  |  |  |  |  |  |  |  | 60% |
| Wengstrom et al., 2009 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y |  |  |  |  |  |  |  |  |  |  | 80% |
| Young et al., 2018 | 3. Non-randomized study | Y | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  |  |  |  |  |  | 100% |
| Brown et al., 2020 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | CT | Y | CT | Y |  |  |  |  |  | 60% |
| Citty et al., 2017 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | CT | Y | CT |  |  |  |  |  | 60% |
| Citty et al., 2020 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | N | Y | N | N |  |  |  |  |  | 40% |
| Collins et al., 2019 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| de Oliveria Faria et al., 2021 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Dedeyne et al., 2018 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | CT | Y |  |  |  |  |  | 80% |
| den Uijl et al., 2015 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Doll-Shankaruk et al. , 2008 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Enriquez-Fern et al., 2022 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | CT | Y |  |  |  |  |  | 80% |
| Ginzburg et al., 2018 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CT | Y | Y | Y | Y |  |  |  |  |  | 80% |
| Gosney et al., 2003 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | CT | Y | Y | Y |  |  |  |  |  | 80% |
| Hashizume et al. , 2019 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | CT | Y |  |  |  |  |  | 80% |
| Ho Nrshariza et al., 2017 | 4. Quantitative descriptive study | N | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CT | CT | CT | CT | CT |  |  |  |  |  | 0% |
| Lidoriki et al., 2020 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Myers et al., 2010 | 4. Quantitative descriptive study | N | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | N | Y | N | N |  |  |  |  |  | 40% |
| Nasrah et al., 2020 | 4. Quantitative descriptive study | CT | CT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CT | Y | N | N | CT |  |  |  |  |  | 20% |
| Skladany et al., 2020 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Taib et al., 2021 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Dhuibhir et al., 2019 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Weenen et al., 2014 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Wong et al., 2021 | 4. Quantitative descriptive study | Y | Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | 100% |
| Brindisi et al., 2020 | 5. Mixed methods study | Y | Y | N | Y | CT | N | CT |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | N | Y | Y | N | N | N | N | 20% |
| Lad et al., 2005 | 5. Mixed methods study | Y | Y | N | CT | N | CT | Y |  |  |  |  |  |  |  |  |  |  | Y | Y | Y | Y | Y | N | Y | Y | N | N | 20% |
| Qin et al., 2022 | 5. Mixed methods study | Y | Y | Y | CT | Y | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y | 80% |
| Wan et al., 2021 | 5. Mixed methods study | Y | Y | Y | Y | Y | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y |  |  |  |  |  | Y | Y | Y | Y | Y | 100% |

**Screening questions:**

S1. Are there clear research questions? and S2. Do the collected data allow to address the research questions?

**Quality criteria:**

*Qualitative studies*: 1.1. Is the qualitative approach appropriate to answer the research question? 1.2. Are the qualitative data collection methods adequate to address the research question? 1.3. Are the findings adequately derived from the data? 1.4. Is the interpretation of results sufficiently substantiated by data? 1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?

*Randomized Controlled Trials:* 2.1. Is randomization appropriately performed? 2.2. Are the groups comparable at baseline? 2.3. Are there complete outcome data? 2.4. Are outcome assessors blinded to the intervention provided?

2.5 Did the participants adhere to the assigned intervention?

*Non-randomized studies*: 3.1. Are the participants representative of the target population? 3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)? 3.3. Are there complete outcome data?

3.4. Are the confounders accounted for in the design and analysis? 3.5. During the study period, is the intervention administered (or exposure occurred) as intended?

*Quantitative descriptive studies*: 4.1. Is the sampling strategy relevant to address the research question? 4.2. Is the sample representative of the target population? 4.3. Are the measurements appropriate? 4.4. Is the risk of nonresponse bias low? 4.5. Is the statistical analysis appropriate to answer the research question?

*Mixed methods studies:* 5.1. Is there an adequate rationale for using a mixed methods design to address the research question? 5.2. Are the different components of the study effectively integrated to answer the research question?

5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted? 5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?

5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?

**Score:** The overall score ranges from 0% (if no quality criteria is met), to 100% (if all five quality criteria are met). For mixed method studies including 15 criteria, the overall quality score is the lowest score of the study components.