Supplementary Table 1. Methodological quality assessment of included studies

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Question** | **Scoring Criteria** | Avela et al. ([7](#_ENREF_7)) | Burgess et al. ([10](#_ENREF_10)) | Fahlstrom & Alfredson ([15](#_ENREF_15)) | Farris et al. ([16](#_ENREF_16)) | Fredberg et al. ([19](#_ENREF_19)) | Grigg et al. ([21](#_ENREF_21)) | Grigg et al.([22](#_ENREF_22)) | Kato et al. ([26](#_ENREF_26)) | Kay et al. ([28](#_ENREF_28)) | Kay et al.([29](#_ENREF_29)) | Kubo et al.([36](#_ENREF_36)) | Kubo et al.([39](#_ENREF_39)) | Mademli et al.([46](#_ENREF_46)) | Mademli et al.([47](#_ENREF_47)) | Mizuno et al.([57](#_ENREF_57)) | Morse et al.([60](#_ENREF_60)) | Nakamura et al.([61](#_ENREF_61)) | Park et al.([65](#_ENREF_65))  | Peltonen et al.([66](#_ENREF_66))  | Shalabi et al.([72](#_ENREF_72))  | Wearing et al.([75](#_ENREF_75)) | **Average Score** |
| Research aims or questions stated clearly | 1-Yes; 0.5-yes, lacking detail; 0-No | 1 | 1 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.98** |
| Participants detailed | Number | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **1.00** |
| Age | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.90** |
| Sex | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **1.00** |
| Population | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.90** |
| **Subtotal** | 0.75 | 1 | 1 | 0.75 | 0.75 | 1 | 1 | 1 | 1 | 1 | 0.75 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.95** |
| Recruitment and sampling methods described | 1-Yes; 0.5-yes, lacking detail; 0-No | 0.5 | 0 | 0.5 | 0.5 | 0 | 1 | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 0.5 | 0.5 | 1 | 1 | **0.36** |
| Inclusion and exclusion criteria described | 1-Yes; 0.5-yes, lacking detail; 0-No | 0.5 | 0 | 0.5 | 0.5 | 0 | 1 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | **0.55** |
| Controlled co-covariates | Age | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | **0.90** |
| Sex | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | **0.90** |
| Tendon pre-conditioning or warm-up | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | **0.38** |
| **Subtotal** | 0.33 | 1 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 1 | 1 | 1 | 1 | 1 | 0.67 | 0.67 | 0.67 | 0.67 | 0 | 1 | 0.33 | 0.67 | **0.75** |
| Key outcome variable clearly described | 1-Yes; 0.5-only some defined; 0.5-yes, lacking detail; 0-No | 1 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 1 | 1 | **0.86** |
| Adequate methodology able to repeat study | Participant sampling | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | **0.29** |
| Equipment | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.90** |
| Procedure | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | **0.90** |
| Data processing | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.83** |
| Statistical analysis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.98** |
| **Sub total**  | 0.8 | 0.8 | 0.4 | 0.8 | 0.2 | 1 | 0.8 | 0.8 | 1 | 1 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 1 | 0.8 | 0.8 | 1 | 1 | 0.8 | **0.78** |
| Methodology able to answer research question | Participant sampling | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | **0.57** |
| Equipment | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **1.00** |
| Procedure | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | **0.81** |
| Data processing | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **0.90** |
| Statistical analysis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **1.00** |
| **Sub total**  | 1 | 0.8 | 0.6 | 1 | 0.4 | 0.8 | 1 | 0.8 | 1 | 1 | 1 | 1 | 1 | 0.8 | 0.6 | 0.8 | 0.8 | 0.8 | 1 | 0.8 | 1 | **0.86** |
| Reliability of the methodology stated | 1 - Yes; 0 - No | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | **0.48** |
| Internal validity of the methodology stated | 1 - Yes; 0 - No | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | **0.86** |
| Research questions answered adequately in the discussion | 1 - Yes; 0 - No | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | **0.90** |
| Key findings supported by the results | 1 - Yes; 0 - No | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **1.00** |
| Key findings interpreted in a logical manner which is supported by reference | 1 - Yes; 0 - No | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | **0.90** |
| Clinical implications stated | 1-Yes; 0.5-yes, lacking detail; 0-No | 0 | 0.5 | 0 | 0.5 | 0.5 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 1 | 0 | 0 | 1 | 1 | 0 | 0.5 | 0 | 0.5 | 0.5 | **0.43** |
|  | **Total (/14)** | 10.9 | 10.1 | 8.67 | 10.7 | 5.02 | 11.5 | 12 | 11.3 | 12.5 | 13.5 | 12 | 12.7 | 10.8 | 10.6 | 11.1 | 11.8 | 9.27 | 7.1 | 12 | 12.1 | 13 | **10.9** |