**Table S2. Characteristics sociodemographic of the populations in the included studies**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| **Parkinson´s disease** | | | | | | |
| Leddy A, 2011 [33]  USA | Cross-sectional | 80 (47F) | 68.2 (9.3) | 11-16d | -Reliability  -Criterion validity  -Hypotheses testing for construct validity |  |
| Bergström M, 2012 [34]  Sweden | Cross-sectional | 9 (8F) | 60.3 (46-85) | 1d | -Hypotheses testing for construct validity |  |
| Duncan RP, 2012a [35]  USA | Prospective cohort | 56 (23F) | 69.5 (1.2) | NR | -Hypotheses testing for construct validity |  |
| Duncan RP, 2012b [36]  USA | Prospective cohort | 6 m: 51 (31F)  12 m: 40 (24F) | 6 m: 68.5 (8.8)  12 m: 67.3 (9.5) | NR | -Hypotheses testing for construct validity |  |
| King LA, 2012 [37]  USA | Cross-sectional | 97 (38F) | 65.6 (7.1) | NR | - Hypotheses testing for construct validity | No floor and ceilling effects. Skewness=0.93 |
| Duncan RP, 2013 [38] | Prospective cohort | 80 (33 F) | 68.2 (9.3) | NR | -Hypotheses testing for construct validity |  |
| Mak MKY, 2013 [39]  China | Cohort study | 110 (44 F) | 63.2 (8.9) | NR | - Hypotheses testing for construct validity |  |
| Maia AC, 2013 [40]  Brazil | Cross-sectional | 35 (14F) | 73.8 (7.4) | 7d | -Rasch reliability  -Reliability |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Löfgren N, 2014 [41]  Sweden | Cross-sectional | 27 (9F) | 73.0 (4.1) | 7d | -Internal consistency  -Reliability  -Measurement error |  |
| Schlenstedt C, 2015 [42]  Germany | Cross-sectional | 85 (28 F) | 67.2 (9.8) | 3±1d | -Reliability  -Hypotheses testing for construct validity | No floor and ceilling effects. Skewness:-1.07 |
| Schlendstedt C, 2016 [43]  Germany | Prospective cohort | 33 (8F) non fallers  33 (13 F) fallers | 66.0 (11.6) non fallers  68.1 (7.5) fallers | NR | -Hypotheses testing for construct validity |  |
| Jacobs JV, 2016 [44]  USA | Prospective cohort | 43 (18F) | 67.0 (64-70) | NR | - Hypotheses testing for construct validity |  |
| Wallén MB, 2016 [45]  Sweden | Cross-sectional | 112 (48F) | 72.8 (5.5) | NR | -Internal consistency  -Rasch reliability |  |
| Löfgren N, 2017 [46]  Sweden | Randomized controlled trial | 105 (45F) | 73.0 (5.5) | NR | -Hypotheses testing for construct validity |  |
| Bustamante-Contreras C, 2020 [47]  Chile | Cross-sectional | 50 (19 F) | 69.14 (8.65) | NR | -Internal consistency  -Reliability | No floor and ceilling effects. |
| Godi M, 2020 [48]  Italy | Cross-sectional | 148 (66F) | 70.4 (8.4) | NR | -Responsiveness |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Rodrigues Lopes LK, 2020 [49]  Brazil | Cross-sectional | 370 (138F) | 65.8 (11.0) | NR | - Hypotheses testing for construct validity |  |
| Godi M, 2021 [50]  Sweden | Cross-sectional | 709 (295 F) | 70.3 (7.9) | NR | -Structural validity  -Internal consistency  - Hypotheses testing for construct validity |  |
| Nakhostin-Ansari A, 2022 [51]  Iran | Prospective cohort | 49 (16F) | 60.8 (13.9) | 14d | -Reliability  -Measurement error  -Hypotheses testing for construct validity | No floor and ceilling effects. |
| Franchignoni F, 2022 [52]  Italy | Cross-sectional | 193 (88 F) | 70.7 (10.6) | NR | -Strutural analysis  -Rasch reliability  -Internal consistency |  |
| Joseph C, 2023 [53]  Sweden | Cross-sectional | 97 (36F) | 71.0 (6.1) | NR | - Hypotheses testing for construct validity |  |
| Brincks J, 2023 [54]  Denmark | Cross-sectional | 78 (24F) | 68.5 (7.4) | NR | - Hypotheses testing for construct validity |  |
| Mezzarobba S, 2023  [55]  Italy | Cross-sectional | 181 (69F) | 70.5 (3.54) | NR | - Hypotheses testing for construct validity |  |
| Sato S, 2024 [56]  Japan | Cross-sectional | 471(237F) | 65.7 (10.6) | NR | - Hypotheses testing for construct validity |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| **Stroke** | | | | | | |
| Bergström M, 2012 [34]  Sweden | Cross-sectional | 9 (4F) | 78.4 (66-90) | 1d | -Hypotheses testing for construct validity |  |
| Tsang Ch SL, 2013 [57]  China | Prospective cohort | 106 (33 F) | 57.1 (11.0) | 10d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity | No floor and ceilling effects. |
| Goljar N, 2017 [58]  Slovenia, Italy, Croatia | Cross-sectional | 159 (59 F) | 69.3 (10.3) | NR | -Rasch reliability  -lnternal consistency |  |
| Madhavan S, 2017 [59]  USA | Cross-sectional | 41 (10F) | 59.4 (9.05) | NR | - Hypotheses testing for construct validity |  |
| Oyama Ch, 2018 [60]  Japan | Cross-sectional | 18 (14F) | 59.9 (27.0) | 2d | -Internal consistency  -Reliability  -Hypotheses testing for construct validity | No floor and ceilling effects. Skewness:-0.57 |
| Lampropoulou SI, 2019 [61]  Greece | Cross-sectional | 21 (7F) | 63.0 (16.0) | 7-10d | -Internal consistency  -Reliability  -Measurement error  ­-Hypotheses testing for construct validity | No floor and ceilling effects.  Skewness:-0.427 |
| Winairuk T, 2019 [62]  Thailand | Prospective cohort | 70 (26F) | 55.24 (12.11) | 7d | -Reliability  -Responsiveness | No ceilling effect. Floor effect at baseline (21.4%). |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Cramer E, 2020 [63]  Germany | Cross-sectional | 50 (16F) | 64.58 (13.34) | NR | -Internal consistency  -Hypotheses testing for construct validity | No floor and ceilling effects. |
| Göktas A, 2020 [64]  Turkey | Cross-sectional | 84 (28F) | 59.52 (14.04) | 7d | -Structural validity  -Internal consistency  -Reliability  -Measurement error  - Hypotheses testing for construct validity |  |
| Naghdi S, 2020 [65]  Iran  2020 | Cross-sectional | 30 (13F) | 54.2 (16.1) | NR | -Reliability  -Hypotheses testing for construct validity |  |
| Miyata K, 2020 [66]  Japan | Cross-sectional | 88 (32F) | 71.1 (9.2) | NR | -Responsiveness | No floor and ceilling effects. |
| Hasegawa S, 2021 [67]  Japan | Cross-sectional | 30 (13F) | 76.4 (10.4) | NR | -Responsiveness |  |
| Miyata K, 2022 [68]  Japan | Cross-sectional | 115 (37 F) | 70.8 (11.2) | NR | -Rasch reliability |  |
| Takeda R, 2023 [69]  Japan | Prospective cohort | 50 (7F) | 70.4(10.1) | NR | -Rasch reliability  -Responsiveness |  |
| Inoue S, 2024 [70]  Japan | Prospective cohort | 58 (18F) | 63.7 (13.2) | NR | -Internal consistency  -Hypotheses testing for construct validity |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Kizilkaya E, 2023 [71]  Turkey | Cross-sectional | 51(13F) | 60.64 (7.66) | NR | -Hypotheses testing for construct validity |  |
| **Multiple sclerosis** | | | | | | |
| Roos E, 2016 [72]  Ireland | Cross-sectional | 52 (37F) | 45.73 (5.65) | NR | -Reliability  -Measurement error |  |
| Potter K, 2019 [73]  USA | Cross-sectional | 32 (26 F) | 55.84 (14.01) | 7 d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity | No floor and ceilling effects. |
| Wallin A, 2021 [74]  Sweden | Cross-sectional | 54 (38 F) | 49.6 (9.8) | 7.3 ±1.5 d | -Reliability  -Measurement error | No floor effect. The sections anticipatory, reactive postural control and sensory orientation showed ceilling effects ranging from 18.5% to 42.5%. |
| Ünlüer NO, 2021 [75]  Turkey | Cross-sectional | 54 (35F) | 4.013 (9.71) | NR | - Hypotheses testing for construct validity |  |
| Molhemi F, 2022 [76]  Iran | Cross-sectional | 50 (37F) | 37.0 (9.6) | 7d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity  -Responsiveness |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Kaya G, 2023 [77]  Turkey | Cross-sectional | 25 (NR) | 33.36 (8.50) | NR | -Hypotheses testing for construct validity |  |
| **Spinal cord injury** | | | | | | |
| Jorgensen V, 2017 [78]  Sweden | Cross-sectional | 46 (32F) | 54.5 (17.0) | NR | -Structural validity  -Internal consistency  -Hypotheses testing for construct validity | No floor and ceilling effects. |
| Chan K, 2019 [79]  Canada | Cross-sectional | 21 (14F) | 56.9 (14.0) | NR | -Reliability  - Hypotheses testing for construct validity |  |
| Roy A, 2021 [80]  Canada | Cross-sectional | 23 (6F) | 55.2 (14.5) | 1-2d | -Reliability  -Measurement error |  |
| Morooka Y, 2024 [81]  Japan | Cross-sectional | 20 (6F) | 64.3 (15.2) | 30d | -Reliability  -Measurement error | No floor and ceilling effects.  Skewness: -0.28 |
| **Adult patients with diverse neurological diagnoses** | | | | | | |
| Franchignoni F, 2010 [16]  Italy | Cross-sectional | 115 (62 F) | 62.7 (16.0) | NR | -Structural validity  -Rasch reliability |  |
| Godi M, 2013 [82]  Italy | Cross-sectional | 93 (53F) | 66.2 (13.2) | 1-3d | -Internal consistency  -Reliability  -Hypotheses testing for construct validity  -Responsiveness |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Franchignoni F, 2015 [83]  Italy | Cross-sectional | 234 (105F) | 65.9 (13.8) | NR | -Rasch reliability  -Internal consistency |  |
| Lemay J-F, 2019 [84]  Canada | Cross-sectional | 20 (8F) | 56.4 (17.14) | 21d | -Internal consistency  -Reliability  -Measurement error |  |
| Caronni A, 2023 [85]  Italy | Cross-sectional | 292 (128F) | 75.9 (67.7-81.3) | NR | -Rasch reliability |  |
| Gylfadottir S, 2023 [86]  Iceland | Cross-sectional | 10 (4F) | 56.6 (12.1) | 1-3d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Dogrouz Karatekin B,  2023 [87]  Turkey | Cross-sectional | 61 (27F) | 61.72 (8.58) | 5d | -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Alyousef NI, 2023 [88]  Saudi Arabia | Cross-sectional | 56 (18F) | 36.11 (13.11) | 7-10d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity | No floor and ceilling effects. |
| Freitas M, 2024 [89]  Portugal | Cross-sectional | 100 (14F) | NR | 7-10d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity | No floor and ceilling effects.  Skewness: -0.495 |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Caronni A, 2023 [90]  Italy | Cross-sectional | 353 (NR) | NR | NR | -Hypotheses testing for construct validity |  |
| **Older adults** | | | | | | |
| Dominguez-Olivan P, 2020 [91]  Spain | Cross-sectional | 30 (16F) | 73.3 (65-89) | 1d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Anson E, 2019 [92]  USA | Cross-sectional | 85 (42F) | 78.1 (7.01) | 32d | -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Pereira Viveiro LA, 2019 [93]  Brazil | Cross-sectional | 49 (30F) | 77.8 (7.2) | 7-10d | -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| O´Hoski S, 2015 [94]  Canada | Cross-sectional | 79 (NR) | 68.7 (10.57) | NR | -Hypotheses testing for construct validity |  |
| Errera Magnani P, 2020 [95]  Brazil | Cross-sectional | 60-69 years: 92  70-79 years: 73  80-89 years: 52  ≥90 years: 47  205 F (en total) | 65.2 (2.9)  72.8 (2.7)  83.1 (2.4)  93.0 (3.1) | NR | -Hypotheses testing for construct validity |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Maia AC, 2013 [40]  Brazil | Cross-sectional | 35 (26F) | 73.8 (7.4) | NR | -Structural validity  -Reliability |  |
| Kim T, 2017 [96]  South Korea | Cross-sectional | 60 (60F) | Fallers  72.47 (5.93)  Non fallers  72.77 (4.27) | NR | - Hypotheses testing for construct validity |  |
| Alqathani BA, 2022 [97]  Saudi Arabia | Cross-sectional | 144 (64F) | 66.2 (6.2) | 10d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Toledano-Shubi A, 2024 [98]  Israel | Cross-sectional | 48 (33F) | 72.50 (4.66) | NR | -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Lampropoulou S, 2024  [99]  Greece | Cross-sectional | 24 (18F) | 74.0 (7.0) | NR | -Hypotheses testing for construct validity |  |
| Batistela RA, 2023  [100]  Brazil | Cross-sectional | Non-fallers  41 (NR)  Fallers  40 (NR) | Non-fallers  72.1(4.6)  Fallers  73.8 (5.0) | NR | -Hypotheses testing for construct validity |  |
| **People with increased risk of falling** | | | | | | |
| Yingyongyudha A, 2016 [101]  Thailand | Cross-sectional | 200 (NR) | 7.0 (NR) | NR | -Reliability  -Hypotheses testing for construct validity |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Hamre Ch, 2017 [102]  Norway | Cross-sectional | 42 (28F) | 71.7 (14.8) | 2d | -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| Errera Magnani P, 2021 [103]  Brazil | Prospective cohort | 98 (76 F) | 87.0 (5.63) | NR | -Hypotheses testing for construct validity |  |
| **School-aged children** | | | | | | |
| Dewar R, 2017 [104]  Australia | Cross-sectional | 34 (19F) | 1.08 (2.2) | 14-42d | -Reliability  -Measurement error |  |
| **Cervical spondylotic myelopathy** | | | | | | |
| Chiu AYY, 2017 [105]  China | Cross-sectional | 72 (23F) | 63.9 (10.9) | 1-2d | -Internal consistency  -Reliability  -Measurement error  -Hypotheses testing for construct validity | No ceiling and flooring effect  Skewness:-0.39 |
| **Myotonic dystrophy type 1** | | | | | | |
| Duchesne E, 2020 [106]  Canada | Cross-sectional | 56 (22F) | 50.6 (12.5) | NR | -Hypotheses testing for construct validity |  |
| **Spinocerebellar ataxia** | | | | | | |
| Kondo Y, 2020 [107]  Japan | Cross-sectional | 20 (7F) | 63.7 (10.1) | 30d | -Reliability  -Measurement error |  |
| Miyata K, 2024 [108]  Japan | Cross-sectional | 65(23F) | 63.1 (9.9) | NR | -Rasch reliability | No floor and ceilling effects. |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| **Older adults with femoral or vertebral fractures** | | | | | |  |
| Miyata K, 2020 [109]  Japan | Cross-sectional | 94 (NR) | 80.0 (6.4) | NR | -Structural validity |  |
| **Older adults with type 2 diabetes** | | | | | | |
| Marques A, 2017 [110]  Portugal | Cross-sectional | 66 (38F) | 75.0 (7.6) | NR | -Criterion validity  -Hypotheses testing for construct validity |  |
| Phyu SN, 2022a [111]  Thailand | Cross-sectional | 44 (40F) | 56.61 (7.7) | 7d | -Internal consistency  -Reliability  -Measurement error |  |
| Phyu SN, 2022b [112]  Thailand | Cross-sectional | 48 (45F) | 59.04 (7.53) | NR | -Reliability  -Responsiveness |  |
| **Total knee artroplasty** | | | | | | |
| Chan ACM, 2015 [113]  China | Cross-sectional | Interrater reliability: 25 (17F)  Intrarater reliability: 46 (34F) | 69.7 (6.8)  69.1 (6.1) | 7d (intrarater reliability)  2wk, 12wk, 24wk (criterion validity) | -Internal consistency  -Reliability  -Measurement error  -Criterion validity  -Hypotheses testing for construct validity | 2w  Skewness: 0.29  12w  Skewness: -0.72  24 w  Skewness: -0.70 |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| Chan ACM, 2018 [114]  China | Cross-sectional | 134 (95F) | 66.3 (6.6) | NR | -Responsiveness | No ceiling and flooring effect.  2 weeks  Skewness:-0.17  4 weeks  Skewness:-0.46  8 weeks  Skewness:-0.84  12 weeks  Skewness:-0.95  24 weeks  Skewness:-0.93 |
| Chan ACM, 2020 [115]  China | Prospective cohort | 134 (65F) | 66.3 (6.6) | NR | -Hypotheses testing for construct validity  -Responsiveness |  |
| **Older cancer survivors** | | | | | | |
| Huang MH, 2016 [116]  USA | Cross-sectional | 20 (NR) | 68.4 (8.13) | 7-14d | -Reliability  -Measurement error  -Hypotheses testing for construct validity |  |
| **End-stage renal disease** | | | | | | |
| Jácome C, 2018 [117]  Portugal | Cross-sectional | 74 (24F) | 63.9 (15.1) | 5d | -Reliability  -Measurement error  -Criterion validity  -Hypotheses testing for construct validity |  |
| **Table S2. Continued** | | | | | | |
| **Population**  **Author**  **Year**  **Country** | **Study design** | **Sample size (no.Female)** | **Age (y), mean (SD or range)** | **Testing periods**  **(day, week, month)** | **COSMIN measurements addressed** | **Others (not included in the COSMIN Checklist)** |
| **Chronic obstructive pulmonary disease** | | | | | | |
| Jácome C, 2016 [118]  Portugal | Cross-sectional | 46 (22F) | 75.9 (7.1) | 2-3d | -Reliability  -Measurement error  -Criterion validiy  -Hypotheses testing for construct validity | No ceiling and flooring effect  skewness:-0.79 |
| Pereira AC, 2019 [119]  Brazil | Prospective cohort | 70 (27F) | 67.0 (9.3) | NR | -Hypotheses testing for construct validity |  |
| **Chronic pain** | | | | | | |
| Wagner S, 2023 [120]  Sweden | Cross-sectional | 180 (112F) | 51.6 (15.9) | NR | -Structural validity  -Internal consistency  -Hypotheses testing for construct validity | No ceiling and flooring effect  skewness:-1.0 |
| **Critical illness survivors** | | | | | | |
| Egger M, 2024 [121]  Germany | Cross-sectional | 68 (20F) | 64.9 (11.6) | 1.8±1.4d | -Reliability  -Measurement error  -Hypotheses testing for construct validity | No ceiling and flooring effect  skewness:-0.55 |
| **Ehlers-Danlos syndrome/hypermobility spectrum disoders** | | | | | | |
| Lee S et al, 2024 [122]  Canada | Cross-sectional | 20 (18F) | 38.0 (0.30) | 7-14d | -Reliability  -Measurement error  -Hypotheses testing for construct validity | Ceiling effect with 25% of participants achieving the máximum scores. No floor effect. |

*Abbreviation:*d:Day; F:Female; m:Month; NR: Not reported; SD:Standard deviation; wk:Week.