**Supplementary material 1a.** Comparisons between PD patients from UK and from Italy on demographic, clinical, cognitive, and behavioural variables.

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| --- | --- | --- | --- | --- |
|   | UK PD group (N= 32) | Italian PD group (N= 19) | U/ χ2 | *p (r/V)* |
|   | Mean ± SD  | Mean ± SD |   |   |
| Age (*ys*) | 64.05 ± 10.63 | 60.84 ± 9.62 | 199.5 | .181 (−0.19) |
| Education (*ys*) | 14.17 ± 1.28 | 13.68 ± 4.36 | 242.5 | .671 (-.06) |
| nM | 21 | 10 | .844 | .266 (.129) |
| Disease Duration (*ys*) | 8.28 ± 4.1 | 4.78 ± 1.43 | 118 | **.001** (.44) |
| UPDRS-III | 15 ± 7 | 9.89 ± 4.8 | 140 | **.007** (-.37) |
| H&Y | 1.4 ± .39 | 1.9 ± .42 | 107 | **<.001** (-.5) |
| LEDD *(mg)* | 141.47 ± 145.62 | 191.32 ± 131.65 | 194.5 | .142 (-.21) |
| MoCA | 27.95 ± 1.94 | 24.05 ± 2.79 | 55 | **<.001** (-.64) |
| Interoceptive accuracy | .50 ± .31 | .24 ± .51 | 207 | .244 (-.17) |
| Interoceptive insight | .090 ± .711 | .012 ± .709 | 212 | .292 (-.15) |
| Self-reported interoception | .058 ± .020 | .054 ± .024 | 255 | .901 (-.02) |
| HDRS | 8.28 ± 4.94 | 8.47 ± 3.79 | 238 | .621 (-.07) |
| HARS | 12.06 ± 8.11 | 13 ± 7.67 | 232.5 | .539 (-.09) |
| AES | 26.5 ± 15.8 | 34.42 ± 8.99 | 223 | .411 (-.12) |
| Total ICD A\_D | 8 ± 7.55 | 5.21 ± 4.91 | 209 | .257 (-.16) |
| QUIP Tot A\_F | 13.56 ± 12.39 | 7.21 ± 6.98 | 175 | .060 (-.26) |

*Note.* r/V, effect size; PD, Parkinson’s disease; N, Number of participants; ICD, Impulsive Control Beahaviour Disorder; nM, number of males; UPDRS, Unified Parkinson’s Disease Rating Scale; H&Y, Hoehn and Yahr Scale; LEDD, Levodopa Equivalent Daily Dose; MoCA, Montreal Cognitive Assessment; HDRS, Hamilton Depression Rating Scale; HARS, Hamilton Anxiety Rating Scale; AES, Apathy Evaluation Scale; QUIP, Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease-Rating Scales.

**Supplementary material 1b.** Stepwise multiple regression analyses predicting QUIP-RS total scores and QUIP-RS ICD scores in PD patients (N=51).

|  |  |  |
| --- | --- | --- |
|  | **QUIP-RS total score**  | **QUIP-RS ICD score** |
| **Predictor**  | β | t | p | β | t | p |
| **M1** |  |  |  |  |  |  |
| Self-reported interoception | .294 | 2.086 | .043 | .343 | 2.473 | .017 |
| Fit model | F(1,50) = 4.349, p = .043, R = .294, R2 = .086 | F(1,50) = 6.116, p = .017, R = .343, R2 = .117 |
| **M2** |  |  |  |  |  |  |
| Self-reported interoception | .392 | 2.845 | .007 | - | - | - |
| Interoceptive insight | .363 | 2.636 | .011 | - | - | - |
| Fit model  | F(2, 49) = 5.931, p = .005, R = .457, R2 = .209 | - | - | - |

*Note.* PD, Parkinson’s disease; N, Number of participants; ICD, Impulsive Control Beahaviour Disorder; QUIP, Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease-Rating Scales.