# Supplementary Material

## Group Comparison of Connectivity Measures Between Low and High Alexithymic Subjects: TAS-20 subscales

Table 3: Difficulties Identifying Feelings: Group comparison of centrality measures. Only cortical regions with uncorrected P<0.05 are shown

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nodal measure | Cortical region | Low-alexithymic group | High-alexithymic group | P | PFDR |
| Weighted degree | L rostralmiddlefrontal | 68 | 43 | 0.0042 | 0.289 |
|  | R paracentral | 20 | 57 | 0.0186 | 0.658 |
|  | R middletemporal | 61 | 33 | 0.0364 | 0.658 |
|  | L lateralorbitofrontal | 67 | 48 | 0.0387 | 0.658 |
| Eigenvector centrality | L rostralmiddlefrontal | 68 | 48 | 0.0120 | 0.995 |
|  | L lateralorbitofrontal | 63 | 38 | 0.0281 | 0.995 |
|  | (R paracentral | 24 | 52 | 0.0785 | 0.976) |

Table 4: Difficulties Describing Feelings: Group comparison of centrality measures. Only cortical regions with uncorrected P<0.05 are shown

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nodal measure | Cortical region | Low-alexithymic group | High-alexithymic group | P | PFDR |
| Weighted degree | R superiorparietal | 25 | 63 | 0.0148 | 0.865 |
|  | (R paracentral | 20 | 47 | 0.1153 | 0.865) |
| Eigenvector centrality | (R paracentral | 22 | 52 | 0.0614 | 0.850) |

Table 5: Externally Oriented Thinking: Group comparison of centrality measures. Only cortical regions with uncorrected P<0.05 are shown

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nodal measure | Cortical region | Low-alexithymic group | High-alexithymic group | P | PFDR |
| Weighted degree | R medialorbitofrontal | 64 | 17 | 0.00136 | 0.092 |
|  | R inferiortemporal | 53 | 11 | 0.00423 | 0.143 |
|  | R paracentral | 20 | 59 | 0.0122 | 0.276 |
|  | L precentral | 41 | 64 | 0.0431 | 0.747 |
| Eigenvector centrality | R medialorbitofrontal | 61 | 18 | 0.00151 | 0.073 |
|  | R inferiortemporal | 52 | 10 | 0.00216 | 0.073 |
|  | R lateraloccipital | 17 | 51 | 0.01453 | 0.329 |
|  | R paracentral | 16 | 50 | 0.02563 | 0.435 |

## Group Comparison of Connectivity Measures Between Low and High Alexithymic Subjects: Bottom 25% vs. Top 25% analysis

* 1. Table 6: TAS-20 bottom 25% vs. top 25% analysis: Demographic characteristics of the combined SHIP-2 and SHIP-Trend samples

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Covariate | 1. Unit | 1. Low-Alexithymic Group | 1. High-Alexithymic Group | 1. Overall | 1. Group Comparison |  |
| 1. N | 1. - | 1. 531 | 1. 530 | 1. 1061 |  |  |
| 1. Age | 1. years | 1. 51.4 | 1. 53.6 | 1. 52.5 | 1. *t*=-2.7; *P*=7.7e-3 | 1. \* |
| 1. Sex ratio = F/(M+F) | 1. - | 1. 0.54 | 1. 0.44 | 1. 0.49 | 1. χ²=9.2; *P*=2.3e-3 | 1. \* |
| 1. Handedness = R/(R+L) | 1. - | 1. 0.92 | 1. 0.90 | 1. 0.91 | 1. Χ²=0.98; *P*=0.32 |  |
| 1. Intracranial volume | 1. l | 1. 1.59 | 1. 1.59 | 1. 1.59 | 1. *t*=-0.71; *P*=0.47 |  |
| 1. Smoking |  |  |  |  | 1. χ²=2.24; *P*=0.32 |  |
| 1. never | 1. - | 1. 218 | 1. 195 | 1. 413 |  |  |
| 1. former | 1. - | 1. 199 | 1. 207 | 1. 406 |  |  |
| 1. current | 1. - | 1. 114 | 1. 128 | 1. 242 |  |  |
| 1. Educational attainment |  |  |  |  | 1. Χ²=72.5; *P*=1.7e-16 | 1. \* |
| 1. >= 8 years | 1. - | 1. 45 | 1. 133 | 1. 178 |  |  |
| 1. >= 10 years | 1. - | 1. 298 | 1. 300 | 1. 598 |  |  |
| 1. >= 12 years | 1. - | 1. 188 | 1. 97 | 1. 285 |  |  |
| 1. Alcohol consumption |  |  |  |  | 1. χ²=2.0; *P*=0.15 |  |
| 1. low | 1. - | 1. 492 | 1. 477 | 1. 969 |  |  |
| 1. high | 1. - | 1. 39 | 1. 53 | 1. 92 |  |  |
| 1. Cohort |  |  |  |  | 1. χ²=42.7; *P*=6.3e-11 | 1. \* |
| 1. SHIP-2 | 1. - | 1. 120 | 1. 220 | 1. 340 |  |  |
| 1. SHIP-Trend | 1. - | 1. 411 | 1. 310 | 1. 721 |  |  |
| 1. Prevalence of clinical alexithymia | 1. - | 1. 0 | 1. 0.12 | 1. 0.06 |  |  |

Table 7: TAS-20 bottom 25% vs. top 25% analysis: Group comparison of centrality measures. Only cortical regions with uncorrected P<0.05 are shown

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nodal measure | Cortical region | Low-alexithymic group | High-alexithymic group | P | PFDR |
| Weighted degree | L superiortemporal | 31 | 65 | 0.01887 | 0.614 |
|  | R paracentral | 17 | 61 | 0.02657 | 0.614 |
|  | R medialorbitofrontal | 52 | 10 | 0.031 | 0.614 |
|  | R parsorbitalis | 35 | 7 | 0.03616 | 0.614 |
| Eigenvector centrality | R paracentral | 13 | 59 | 0.0179 | 0.499 |
|  | L superiortemporal | 22 | 60 | 0.01902 | 0.499 |
|  | L paracentral | 7 | 51 | 0.02205 | 0.499 |
|  | R caudalmiddlefrontal | 61 | 21 | 0.04209 | 0.585 |
|  | R parsorbitalis | 28 | 5 | 0.04308 | 0.585 |