**Supplementary Table 2.**

Correlation of neuropsychological tests’ scores with the volumes of brain regions with statistical differences in gray matter in JME.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Neuropsychological test | OrG\_L\_6\_6 | PrG\_L\_6\_2 | PrG\_L\_6\_4 | PCL\_L\_2\_1 | PrG\_R\_6\_1 | PoG\_L\_4\_1 | PoG\_R\_4\_1 | Tha\_L\_8\_5 | Tha\_L\_8\_7 | PCun\_L\_4\_3 | PhG\_R\_6\_4 |
|  | Pearson Correlation/ *P*-value |
| Raven's Standard Progressive Matrices | 0.231/0.059 | 0.235/0.055 | 0.147/0.235 | -0.08/0.522 | **.281\*/0.021#** | 0.122/0.324 | 0.182/0.14 | **.439\*\*/<0.001#** | **.420\*\*/<0.001#** | 0.098/0.431 | **.246\*\*/0.045#** |
| Visual Research Task | 0.102/0.410 | 0.117/0.346 | 0.183/0.138 | 0.165/0.182 | 0.073/0.555 | 0.159/0.199 | 0.009/0.944 | 0.16/0.195 | 0.18/0.145 | 0.222/0.07 | 0.076/0.54 |
| Visual Tracing Task | **.298\*/0.014#** | 0.196/0.111 | **.341\*\*/0.005#** | 0.237/0.054 | 0.229/0.062 | **.301\*/0.013#** | 0.142/0.253 | 0.153/0.215 | 0.111/0.373 | 0.172/0.163 | 0.17/0.169 |
| AVLT Immediate Memory | 0.158/0.202 | 0.179/0.147 | 0.135/0.278 | 0.084/0.498 | **.347\*\*/0.004#** | **.279\*/0.022#** | **.270\*/0.027#** | **.308\*/0.011#** | 0.188/0.127 | 0.135/0.276 | 0.065/0.604 |
| AVLT Delayed Memory  | 0.136/0.272 | 0.169/0.171 | 0.098/0.432 | 0.129/0.298 | 0.225/0.067 | **.251\*/0.04#** | 0.173/0.161 | **.288\*/0.018#** | 0.165/0.181 | 0.228/0.064 | 0.081/0.514 |
| Digit Span | 0.086/0.491 | 0.091/0.464 | 0.178/0.151 | 0.118/0.342 | 0.221/0.072 | 0.166/0.179 | **.305\*/0.012#** | 0.222/0.071 | 0.173/0.161 | 0.104/0.402 | 0.115/0.356 |
| Digital n-back Test | 0.056/0.654 | 0.074/0.553 | 0.190/0.124  | 0.071/0.568 | 0.199/0.106 | 0.115/0.354 | 0.1/0.422 | **.311\*/0.010#** | **.246\*/0.045#** | -0.013/0.915 | 0.102/0.412 |
| Spatial n-back Test | **.403\*\*/0.001#** | 0.188/0.127 | 0.223/0.070 | 0.139/0.260 | **.332\*\*/0.006#** | **.383\*\*/0.001#** | **.287\*/0.018#** | **.293\*/0.016#** | **.256\*/0.037#** | **.327\*\*/0.007#** | 0.231/0.06 |
| Choice Reaction Time | **-.426\*\*/<.001#** | **-.378\*\*/0.002#** | -0.128/0.304 | -0.135/0.276 | **-.271\*/0.027#** | **-.295\*/0.015#** | **-.248\*/0.043#** | **-.358\*\*/0.003#** | **-.367\*\*/0.002#** | -0.15/0.227 | **-.289\*/0.018#** |
| Visual Perception Task | 0.198/0.109 | 0.145/0.242 | 0.163/0.186 | 0.039/0.755 | 0.198/0.109 | 0.058/0.643 | 0.113/0.363 | 0.237/0.053 | 0.112/0.369 | 0.119/0.337 | 0.109/0.379 |
| Three-dimensional Mental Rotation | **.361\*\*/0.003#** | **.318\*/0.009#** | **.304\*/0.012#** | **.291\*/0.017#** | **.321\*\*/0.008#** | **.332\*\*/0.006#** | **.316\*\*/0.009#** | **.426\*\*/<0.001#** | **.385\*\*/0.001#** | **.467\*\*/<0.001#** | **.368\*\*/0.002#** |
| Word Discrimination Test | 0.238/0.052 | **.283\*/0.02#** | 0.066/0.597 | 0.16/0.196 | 0.204/0.098 | 0.171/0.167 | 0.097/0.434 | **.318\*\*/0.009#** | **.284\*/0.02#** | 0.232/0.059 | 0.21/0.089 |
| Complex Subtraction Test | 0.114/0.360 | 0.156/0.209 | 0.003/0.982 | 0.214/0.082 | **.289\*/0.018#** | 0.15/0.226 | 0.147/0.234 | **.366\*\*/0.002#** | **.330\*\*/0.006#** | 0.203/0.099 | 0.165/0.181 |

\*/\*\*, Pearson Correlation; #, *P* < 0.05