|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 1.** Whole brain activation for all participants during the SLLT | | | | | | | | | | |
|  | |  | | Talairach coordinates | | | |  | |  | | |
| Contrast/lobe | BA | | x | | y | z | mm3 | | Z | | |
| **Blk, Encoding minus Silent Rehearsal** |  | |  | |  |  |  | |  | | |
| Frontal |  | |  | |  |  |  | |  | | |
| Precentral | 6 | | 26 | | -17 | 48 | 2704 | | 4.86 | | |
| Middle Frontal | 11 | | 22 | | 30 | -13 | 1280 | | 4.06 | | |
| Medial Frontal | 6 | | 6 | | -19 | 60 | 664 | | 3.76 | | |
|  | 11 | | 8 | | 30 | -13 | 568 | | 4.45 | | |
|  | 8 | | -11 | | 30 | 47 | 512 | | 4.21 | | |
| Insula | 13 | | 43 | | -25 | 16 | 536 | | 3.42 | | |
| Inferior Frontal | 47 | | -27 | | 32 | -9 | 480 | | 3.44 | | |
| Parietal |  | |  | |  |  |  | |  | | |
| Postcentral | 2 | | -34 | | -25 | 41 | 22048 | | 6.59 | | |
| Temporal |  | |  | |  |  |  | |  | | |
| Uncus | 20 | | -29 | | 1 | -32 | 25096 | | 5.31 | | |
| Superior Temporal | 38 | | 38 | | 14 | -33 | 16880 | | 5.77 | | |
| Inferior Temporal | 20 | | 59 | | -15 | -19 | 1120 | | 4.94 | | |
|  | 20 | | -59 | | -21 | -21 | 968 | | 5 | | |
| Occipital |  | |  | |  |  |  | |  | | |
| Fusiform | 18 | | -29 | | -91 | -14 | 20800 | | 7.12 | | |
| Inferior Occipital | 17 | | 27 | | -93 | -9 | 13432 | | 7.78 | | |
| Subcortical |  | |  | |  |  |  | |  | | |
| Caudate Nucleus, head |  | | 3 | | 4 | -2 | 2048 | | 4.43 | | |
| **ER, Words Recalled** |  | |  | |  |  |  | |  | | |
| Frontal |  | |  | |  |  |  | |  | | |
| Paracentral Lobule | 5 | | 10 | | -38 | 56 | 8032 | | 5.07 | | |
|  | 5 | | -11 | | -40 | 58 | 2480 | | 4.68 | | |
| Inferior Frontal | 47 | | -31 | | 32 | -11 | 5768 | | 5.17 | | |
| Middle Frontal | 8 | | -17 | | 32 | 38 | 3368 | | 4.97 | | |
|  | 11 | | 29 | | 34 | -11 | 1608 | | 4.71 | | |
| Subgenual Cingulate | 25 | | -4 | | 1 | -6 | 472 | | 3.4 | | |
| Insula | 13 | | 47 | | -9 | 19 | 344 | | 3.69 | | |
| Temporal |  | |  | |  |  |  | |  | | |
| Uncus | 20 | | 31 | | -7 | -31 | 7144 | | 5.02 | | |
| Parahippocampal | 36 | | 22 | | -40 | -6 | 912 | | 4.2 | | |
| Inferior Temporal | 20 | | -59 | | -17 | -19 | 424 | | 3.78 | | |
| Middle Temporal | 39 | | -43 | | -71 | 17 | 352 | | 3.37 | | |
| Occipital |  | |  | |  |  |  | |  | | |
| Lingual | 17 | | -15 | | -95 | -14 | 2480 | | 6.05 | | |
| Fusiform | 18 | | 24 | | -93 | -12 | 848 | | 4 | | |
| Subcortical |  | |  | |  |  |  | |  | | |
| Cerebellum, Culmen of Vermis |  | | -27 | | -36 | -14 | 11728 | | 5.22 | | |
|  |  | | 17 | | -36 | -20 | 640 | | 3.72 | | |
| Claustrum |  | | 33 | | -15 | 11 | 2176 | | 4.56 | | |

**Supplemental Table 2.** Correlations of SLLT Performance with Other Memory, Processing Speed, and Executive Functioning Measures

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **SLLT**  % Accuracy  MDD (NDC) | | | | **CVLT-II Trial 1**  % Recall  MDD (NDC) | | | | | |
| Primacy | | Middle | Recency | Primacy | | Middle | | Recency | |
| **SLLT**  % Accuracy | Primacy | | 1(1) | 0.81\*\*(0.78\*\*) | 0.81\*\*(0.73\*\*) | | 0.32\*(0.34) | | 0.17(0.22) | | 0.07(-0.15) |
| Middle | | -- | 1(1) | 0.83\*\*(0.80\*\*) | | 0.15(0.28) | | 0.15(0.29) | | 0.10(-0.08) |
| Recency | | -- | -- | 1(1) | | 0.15(0.23) | | 0.05(0.15) | | 0.13(-0.16) |
| **CVLT-II**  **Trial 1** | | | -- | -- | -- | | 1(1) | | -0.10(0.07) | | -0.18(-0.14) |
| % Recall | Primacy | |
|  | Middle | | -- | -- | -- | | -- | | 1(1) | | -0.13(-0.12) |
|  | Recency | | -- | -- | -- | | -- | | -- | | 1(1) |
| **CVLT-II** | Long-Delay Free Recall- % Recall | | 0.56\*\*(0.52\*) | 0.53\*\*(0.45\*) | 0.48\*\*(0.33) | | 0.29(0.43\*) | | 0.17(0.41\*) | | -0.08(-0.06) |
|  | Semantic Clustering | | 0.40\*(0.24) | 0.33\*(0.18) | 0.28(0.01) | | 0.17(0.28) | | 0.41\*(0.54\*\*) | | -0.04(-0.17) |
| **Attention** | PGNG % Correct | | 0.19(0.37\*) | 0.28(0.26) | 0.19(0.10) | | 0.10(0.02) | | 0.22(0.36) | | -0.21(0.14) |
| **Inhibition** | PGNG % Correct  Inhibitions | | 0.07(0.12) | -0.03(0.16) | -0.05(0.09) | | 0.37\*(0.13) | | 0.05(0.53\*\*) | | -0.16(0.41\*) |
| **Set-Shifting** | WCST % Correct | | 0.14(0.09) | -0.05(-0.05) | -0.11(-0.05) | | 0.13(-0.18) | | 0.10(0.19) | | -0.26(0.04) |
|  | WCST Perseverative  Errors | | -0.11(-0.22) | 0.03(-0.11) | 0.13(-0.08) | | -0.11(0.13) | | -0.10(-0.13) | | 0.36\*(-0.11) |
|  | Trails B time | | -0.34\*(0.14) | -0.20(-0.11) | -0.20(-0.05) | | -0.36\*(0.17) | | -0.25(-0.43\*) | | 0.37\*(0.04) |
| **Processing**  **Speed** | PGNG mean RT | | -0.22(-0.59\*\*) | -0.18(-0.51\*\*) | -0.08(-0.45\*\*) | | -0.19(-0.47\*) | | 0.05(-0.17) | | 0.26(0.25) |
| Trails A Time | | -0.17(-0.10) | 0.08(-0.13) | 0.06(-0.003) | | -0.22(-0.15) | | -0.23(-0.46\*) | | 0.06(0.16) |
| \**p* < 0.05. MDD = Major Depressive Disorder. NDC = Never Depressed Controls. CVLT-II = California Verbal Learning Test – Second Edition. PGNG = Parametric go/No-go Test. WCST = Wisconsin Card Sort Test. | | | | | | | | | | | |
| \*\**p* < 0.01. | | | | | | | | | | | |

**Supplemental Table 3.** MDD Demographic Information and Memory Performance by Medication Status

|  |  |  |  |
| --- | --- | --- | --- |
|  | Medicated\* MDD  (*n* = 18) | Unmedicated MDD  (*n* = 18) | *p* |
| Sex (M:F) | 4:14 | 10:8 | 0.09 |
| Age (years) | 48.2 | 36.9 | **0.04** |
| Education (years) | 15.9 | 16.1 | 0.77 |
| Estimated Verbal IQ# | 114.1 | 109.5 | 0.23 |
| Hamilton Depression Rating Scale | 14.2 | 16.9 | 0.20 |
| Beck Depression Inventory | 19.4 | 25.6 | 0.09 |
| Global Assessment of Functioning | 64.6 | 62.6 | 0.56 |
| Total Number of MDEs | 39.4 | 22.3 | 0.20 |
| Age of MDD Onset | 22.9 | 19.3 | 0.37 |
| CVLT-II Trial 1 Recall | 6.2 | 6.5 | 0.60 |
| CVLT-II Long-Delay Free Recall | 12.7 | 12.1 | 0.58 |
| CVLT-II Long-Delay False Positives | 0.3 | 0.3 | 0.92 |
| SLLT Total Recall | 69.2 | 68.7 | 0.96 |
| SLLT False Positives | 9.2 | 9.3 | 0.99 |

\*Current use of at least one psychotropic medication. MDE = Major Depressive Episode.

#Measured using the Shipley-2, Verbal subscale.