|  |
| --- |
| Table 5*Mean TEA-Ch Scores for Full Term and Very Preterm Children at Age 12 Years After the Exclusion of Significant (>3 SD) Outliers*  |
| **TEA-Ch Subtest, m (SD) a** | **FT (*n*=106)** | **VPT (*n*=100)** | ***t*** | ***p*** | **Cohen’s *d*** |
| **Selective Attention**  |  |  |  |  |  |
| Outliers detected and removed, *n* | 0 | 4 |  |  |  |
| Sky Search Attention Score b | 3.55 (1.11) | 3.34 (0.98) | 1.49 | .14 | 0.20 |
| **Sustained Response Inhibition**  |  |  |  |  |  |
| Outliers detected and removed, *n* | 1 | 0 |  |  |  |
| Walk Don’t Walk Total Correct | 15.98 (2.39) | 14.91 (3.66) | 2.46 | .02 | 0.35 |
| **Executive Divided Attention** |  |  |  |  |  |
| Outliers detected and removed, *n* | 8 | 3 |  |  |  |
| Sky Search Dual Task Decrement Score b | 0.90 (1.20) | 2.58 (2.58) | -5.82 | <.001 | 0.83 |
| *Note.* Raw TEA-Ch scores are reported. a Data shown for measures on which significant outliers (>3 SD) were detected. No significant outliers were detected on Score! or Creature Counting. b Higher scores indicate poorer performance |

| Table 6*MNI Coordinates for Voxels with Peak t and Z Scores from VBM Analysis Comparing Regional Differences in Grey Matter Volume Between Full Term (n=93) and Very Preterm (n=89) Children at Age 12 Years, Adjusted for Age at Scan, Sex, Puberty, and Social Risk Index* |
| --- |
| **Region** | **MNI coordinates** | **Cluster-extent** | ***t*** | **Z** | **Uncorrected *p*** | **FWE-corrected *p*** |
|  | **X** | **Y** | **Z** |
| **Contrast 1 (VPT<FT)** |  |  |  |  |  |  |  |  |
| Bilateral parietal cortex (medial juxtapositional lobule) | 1.5 | 15.0 | 70.5 | 20 | 4.63 | 4.49 | 3.54x10-6 | .03 |
| Right inferior post-central gyrus  | 58.5 | -15 | -7.5 | 2301 | 8.66 | Inf. | 1.78x10-15 | <.001 |
| Right superior temporal sulcus | 46.5 | -45 | -15 | 78 | 4.94 | 4.77 | 8.9x10-7 | .02 |
| Left superior temporal sulcus | -54 | -10.5 | -10.5 | 2568 | 9.55 | Inf. | 4.44x10-16 | <.001 |
| Left prefrontal cortex | -7.5 | 67.5 | -13.5 | 69 | 4.87 | 4.71 | 1.25x10-6 | .02 |
| Posterior cingulate gyrus | 3 | -37.5 | 21 | 240 | 6.16 | 5.85 | 2.39x10-9 | .004 |
| Bilateral thalami  | 10.5 | -30 | 18 | 6424 | 8.67 | Inf. | 1.67x10-15 | <.001 |
| Left parahippocampus | -25.5 | -31.5 | -16.5 | 192 | 4.94 | 4.77 | 9.17x10-7 | .006 |
| Right inferior cerebellum | 12 | -49.5 | -63 | 76 | 4.81 | 4.65 | 1.62x10-6 | .02 |
| **Contrast 2 (VPT>FT)** |  |  |  |  |  |  |  |  |
| Medial occipital cortex (supra-calcarine, cuneal, intra-calcarine)  | 7.5 | -79.5 | 16.5 | 2206 | 7.49 | 6.96 | 1.64x10-12 | <.001 |
| Medial anterior cingulate gyrus | -9 | 21 | 49.5 | 6 | 4.68 | 4.54 | 2.88x10-6 | .04 |
| *Note.* Cluster-extent threshold *k*>10; Inf, Infinity |

| Table 7*Summary of Regression Models for the Prediction of Attention Outcomes in Very Preterm Children at Age 12 Years (n=87)* |
| --- |
|  | **Step 1** | **Step 2** |
|  | **B (SE)** | **β** | ***p*** | **B (SE)** | **β** | ***p*** |
| **Sustained Auditory Attention (Score!)** |  |
| Model summary  | R2 =.11, *p* = .01 | R2 =.17, *p* = .002 |
| Gestational age | .19 (0.1) | .23 | .03 | .27 (0.1) | .33 | .003 |
| Social risk index | -.46 (0.2) | -.24 | .02 | -.47 (0.2) | -.25 | .02 |
| Right inferior cerebellum |  |  |  | -3.75 (1.5) | -.27 | .02 |
| **Sustained Response Inhibition Attention (Walk Don’t Walk)** |  |  |  |  |
| Model summary  | R2 =.05, *p* = .11 |  |  | R2 =.11, *p* = .03 |  |  |
| Gestational age | 0.07 (0.2) | .05 | .66 | .07 (0.1) | .05 | .63 |
| Social risk index | -0.74 (0.3) | -.22 | .04 | -.72 (0.3) | -.22 | .04 |
| Occipital cortex |  |  |  | 7.08 (3.1) | .23 | .03 |
| **Executive Shifting Attention (Creature Counting)** |  |  |  |  |
| Model summary | R2 <.01, *p* = .59 | R2 =.10, *p* = .01 |
| Gestational age | .04 (.07) | .06 | .59 | -.03 (.07) | -.05 | .67 |
| Bilateral thalami |  |  |  | 4.59 (1.52) | .33 | .003 |
| **Executive Divided Attention (Sky Search Dual Task)**  |  |  |  |
| Model summary | R2 =.03, *p* = .12 | R2 =.29, *p* = .001 |
| Gestational age  | -0.22 (0.1) | -0.17 | .12 | -0.01 (0.1) | -0.004 | .97 |
| Occipital cortex |  |  |  | -8.66 (2.6) | -0.31 | .001 |
| Posterior cingulate gyrus |  |  |  | -6.72 (3.0) | -0.24 | .03 |
| Anterior cingulate gyrus |  |  |  | 6.33 (2.5) | -0.25 | .01 |
| Left superior temporal sulcus |  |  |  | -9.72 (4.0) | -0.24 | .02 |

| Table 8*Summary of Regression Models for the Prediction of Attention Outcomes in Full Term Children at Age 12 Years (n=91)* |
| --- |
|  | **Step 1** | **Step 2** |
|  | **B (SE)** | **β** | ***p*** | **B (SE)** | **β** | ***p*** |
| **Sustained Auditory Attention (Score!)** |  |
| Model summary  | R2 =.10, *p* = .01 | R2 =.19, *p* = .001 |
| Gestational age | -0.02 (0.1) | -0.01 | .89 | -0.04 (0.1) | -0.03 | .76 |
| Sex | -0.91 (0.3) | -0.32 | .002 | -0.87 (0.3) | -0.31 | .002 |
| Anterior cingulate gyrus |  |  |  | -4.52 (1.5) | -0.29 | .004 |
| **Sustained Response Inhibition Attention (Walk Don’t Walk)** |  |  |  |  |
| Model summary  | R2 =.08, *p* = .30 |  |  | R2 =.14, *p* = .004 |  |  |
| Gestational age | 0.28 (0.2) | 0.13 | .21 | 0.31 (0.2) | 0.15 | .15 |
| Age at MRI scan | 6.54 (2.6) | 0.26 | .01 | 7.01 (2.5) | 0.28 | .01 |
| Posterior cingulate gyrus |  |  |  | 6.40 (2.6) | 0.25 | .01 |
| **Executive Shifting Attention (Creature Counting)** |  |  |  |  |
| Model summary | R2 =.01, *p* = .32 | R2 =.06, *p* = .06 |
| Gestational age | 0.14 (0.1) | 0.11 | .32 | 0.14 (0.1) | 0.10 | .32 |
| Right superior temporal sulcus |  |  |  | 4.48 (2.0) | 0.23 | .03 |
| **Executive Divided Attention (Sky Search Dual Task)**  |  |  |  |
| Model summary | R2 =.01, *p* = .43 |  |
| Gestational age  | 0.14 (.17) | 0.08 | .43 | - | - | - |