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Website Update
Kevin T. Blake, Ph.D. P.L.C.
Tucson, Arizona
German scientists found, “…significantly smaller GM volume in subjects with ADHD compared to their matched controls within the anterior cingulate cortex (ACC), the occipital cortex, bilateral hippocampus/amygdala and in widespread cerebellar regions. Further, reductions of the ACC gray matter volume were found to correlate with scores of selective inattention.”

Italian researchers found that kindergarteners with AD/HD had significantly less self-regulation than their non-disabled peers and this lead to more psychiatric comorbidities in the future as well as worse social functioning.

Canadian scientists found that children with AD/HD and FASD have significant deficiencies of executive function when compared to typically developing children. However, those with FASD have significantly more executive function deficiencies than those with AD/HD.

Screening for AD/HD and Bipolar Disorder in Children

Brazilian and American researchers found that using the Child Behavior Checklist (CBCL)-AAA (Attention Problems, Aggressive Behavior, and Anxious/Depressed) and the Parent–Young Mania Rating Scale (P-YMRS) are good instruments to use in making differential diagnoses of AD/HD and pediatric Bipolar Disorder.

Low Birth Weight and Sluggish Cognitive Tempo

American researchers found that a subgroup of low birth weight children who were evaluated at ages 6, 9, and 16 met criteria for persistent sluggish cognitive tempo and had more difficulty with psychiatric comorbidity, motor coordination problems and social interaction difficulties than those with combined presentation AD/HD.

Transcranial Direct Current Stimulation & AD/HD

Iranian scientists used transcranial direct current stimulation of the left dorsolateral prefrontal cortex of high school students with AD/HD. There was a placebo control group and all subjects and researchers were blinded. The transcranial stimulation produced significant improvement in response inhibition of the treatment group.

AD/HD & Math & Reading Problems

Australian researchers found that elementary children with AD/HD were significantly more at risk of having reading, math and spelling problems than their non-disabled peers. This was even more so if the child with AD/HD was premature.

Neuropsychological Testing and AD/HD

Swedish researchers found that neuropsychological testing to determine if an adult is AD/HD or not cannot tell if they have the disorder or not. However, if a continuous performance test is used in conjunction with The Diagnostic Interview for AD/HD in Adults the accuracy of the diagnostic process is improved by 10%.

American researchers found that AD/HD teen have a positive driving bias that makes them believe they are far more skilled in driving than they actually are and thus they engage in very risky driving activities.

Turkish scientist found that children with Sluggish Cognitive Tempo (SCT) have significantly more difficulty with social anxiety disorder than those with AD/HD, Combined Presentation. They concluded that social anxiety disorder may be more a part of SCT.

Sleep, AD/HD, & ASD

Australian scientist investigate the relationship between sleep disorders in children with AD/HD and ASD. They found that those with both disorders had no significant difference from those found in children with AD/HD. Hence, they stated that the children with ASD and AD/HD’s sleep difficulties were due to their AD/HD, not ASD. This was also true of their internalizing and externalizing problems.

American scientists found that children with AD/HD are almost 5 times more likely to have problems with anxiety, or depression than typically developing children. If they have this comorbidity they are 10 times more likely to have academic problems.

Facial Expressions and AD/HD, Combined Presentation

Researchers from Israel found that adolescents with AD/HD were significantly worse at determining if a facial expression was positive, or negative and they were much slower at making these determinations than their non-disabled peers.

Canadian researchers found that children with AD/HD and anxiety have a sleep disorder related to sleep onset and less sleep than their non-disabled peers that cause their anxiety. The scientists then found that they could use CBT with the children to correct their sleep difficulties and significantly reduce their anxiety.

Chinese researchers found that dyslexic Chinese children’s verbal short-term memory deficit may not come from a phonological awareness deficit, but from a deficit in being able to inhibit semantic representation in short-term memory.

Dyslexia and Driving

Researchers recently found that dyslexic individuals are more apt to experience visual stress in timed situations and this may effect their ability to drive. This they said would be due to their deficit in their Magnocellular system.

Scientists found that rate of growth in executive functions in native Spanish speaking elementary students learning to read English was related to how well they learned to read in English. Students who had reading disorder in Spanish has slower developing executive functions and were worse at learning to read in English.

Executive Function and Reading Comprehension

French researchers found linguistic skills do not differentiate between good and bad reading, but executive function ability does. They suggested investigating how to remediate executive function in such students.

Dutch researchers found that students with AD/HD had lower phonological awareness and rapid automatized naming scores than heir non-disabled peers, but students with dyslexia and AD/HD with dyslexia had far lower scores.

Autism and Anxiety

British researchers investigated the feasibility of using mobile technology to provide real time cognitive behavioral therapy to those with high function autism spectrum disorder and anxiety. They found this was a possible good use of this technology.

British researchers discovered that adults with ASD are far more likely to suffer from anxiety and obsessive-compulsive disorder than their non-disabled peers.

American scientists found that adults with ASD are 2.3 times more apt to contact emergency services than the non-disabled. They recommended this be investigated as to why and to make sure those with ASD w how to use such services properly.

Genetics and ASD

Scientists have found there are about 200 genes related to autism. About 70 are related to the autistic brain and the rest can be related to,… “psychiatric disorders and peripheral comorbidities that include cancer, cardiovascular disease, renal disorders, respiratory disorders and metabolic disorders, demonstrating a broader impact of brain-associated genes in other developing organ systems”*. Some of these may be related to random errors of metabolism and/or mutations in mitochondrial DNA as well as unusual gut microbiomes that can negatively effect the brain.
