March 2015 Website Updates
Kevin T. Blake, Ph.D., P.L.C.
Tucson, AZ
Swiss scientists compared groups of patients with bipolar disorder and comorbid AD/HD with those with bipolar disorder and no AD/HD. They found those with the comorbidity had a younger onset of bipolar symptoms, more anxiety and depressive episodes, more symptoms of borderline personality disorder and more cyclothymic treatments as well as more incidents of childhood abuse than those without comorbid AD/HD. Those with the AD/HD comorbidity were found to have worse life outcomes and more life stress.

Perroud, N. et al. (July 9, 2014). Comorbidity between attention deficit hyperactivity disorder (ADHD) and bipolar disorder in a specialized mood disorders outpatient clinic. *Journal of Affective Disorders*. DOI: [http://dx.doi.org/10.1016/j.jad.2014.06.053](http://dx.doi.org/10.1016/j.jad.2014.06.053).
Danish scientists found that children with AD/HD do not differ from non-disabled children in how they learned from reward when they were medicated or not. The scientist speculated this would not be the case if the AD/HD children ad comorbid oppositional defiant disorder. The AH/HD children were found to complete learning tasks quicker and more accurately with higher stimulant medication dosages, however.

German scientists found that adults who met criterion for AD/HD in childhood, but did not in adulthood who also were “excessive exercisers” may be treating this AD/HD with exercise.

Scientists discovered through brain imagining those with AD/HD have significant gray matter differences in the right cerebellum and left temporal gyrus. The smaller cerebellum was specific to ADHD. Whereas, those with ASD have significantly more gray matter in their left temporal gyrus than those with AD/HD. This difference appears to be specific to ASD. The scientists speculated these differences may be seen as diagnostic in the future.

Detecting Feigned AD/HD in College Students

Recently researchers found the Test of Memory Malingering (TOMM), Letter Memory Test (LMT), and Nonverbal Symptom Validity Test (NV-MSVT) successfully differentiated AD/HD college students form college students feigning AD/HD.

Researchers at Virginia Commonwealth University discovered that parent rated emotional dysfunction and student rated motivation predicted impairment in AD/HD student more than AD/HD symptoms. It was also found that the student’s executive functioning was the best way to predict future impairment.

Sleepiness, SCT, & ADHD

Recently researchers discovered that sluggish cognitive tempo (SCT) and sleepiness have significant overlap with AD/HD, but are distinct conditions unto themselves. They also found that students with AD/HD and Comorbid SCT and sleepiness were significantly more impaired than students with just AD/HD.

Swedish scientists discovered that pre- and post natal exposure to air pollution from automobiles is not associated with neurodevelopmental disorders.

Gong, T., eta al. (December 17, 2014). Exposure to air pollution from traffic and neurodevelopmental disorders in Swedish twins. Twin Research and Human Genetics. DOI: 10.1017/thg.2014.58.
Adult AD/HD and Methylphindate

A literature review and meta-analysis of published randomized double blind studies in proctored journals of AD/HD adults treated with methylphindate done by the Cochrane Collaboration indicated the immediate release type of the medication is efficacious in treating AD/HD in adults. It also found the clinical side effect profile was not significant.

http://www.cochrane.org/CD005041/BEHAV_ritalin-for-adult-attention-deficit-hyperactivity-disorder-adhd
Researchers recently discovered that children with autism spectrum disorder have significant problems with sleep. This was particularly found to be true with those who have comorbid anxiety disorders. It was found that the children who completed a family based cognitive behavioral treatment to treat anxiety were able to sleep significantly better after treatment.

Psychopathy, AD/HD and SCT

Researchers recently discovered that children with AD/HD are at significant risk of having comorbid impulsivity related psychopathy and narcissism whereas those with sluggish cognitive tempo were not.

Diet, Fat and AD/HD

German researchers found that AD/HD children deficient in long-chain polyunsaturated fatty acids in their diets may have exacerbated AD/HD symptoms. They suggested that supplementation of these fats may reduce this exacerbation.

AD/HD and Brain Maturation

Researchers recently found significant maturational lag in brains of children with AD/HD in the frontoparietal network and ventral attention network.

Career and Technical Education for Those with SLD

Research indicates that young adults with career and technical training during high school are more likely to participate in jobs related to their training two years after high school than those that do not have the training.

Researchers found that children with Tourette’s Syndrome are more likely to have comorbidities early in life. The most common comorbidities are obsessive compulsive disorder and AD/HD. It appears in such cases the OCD and AD/HD are genetically related.

Telehealth and AD/HD

The Children’s with AD/HD Telemental Health Treatment Study (CATTS) was found to demonstrate that telehealth was found to be effective in treating Children with AD/HD in communities with limited services.

Autism and Genetics

British researchers compared twins where one met criterion for autism spectrum disorder and the other did not. They found the non-impaired twin often showed autistic traits and there was a significant overlap of genes related to autism in sets of twins.

Autism, Psychosis, and Bipolar Disorder

Researchers from the Netherlands, Great Britton, and Sweden found those with Autism Spectrum Disorder are at significantly higher risk of developing bipolar disorder and nonaffective psychotic disorders.

Maternal Report of ASD Infant Stomach Problems

American and Norwegian scientists found mothers with infants with ASD were significantly more likely to report their baby had gastrointestinal problems than mother with babies that had either other developmental disorders, and mothers that had typically developing children.

Researchers discovered that AD/HD siblings have significantly different global gray matter development that their unaffected siblings. This is particularly true in the putamen and caudate areas. However, the siblings have differences in the same areas when compared to the general population. This may point to a family risk of AD/HD.

Researchers reviewed the published research related to the CogMed program and found that it provided significant improvement in working memory and the results generalized to the natural environment.

AD/HD & Depression

Scientists from the University of North Carolina and Greensboro found that college students with AD/HD are significantly more likely to have comorbid depression and depressive symptoms than nonimpaired college students.

Man Without A Cerebellum

Jonathan Keleher is a 33 year old man born without a cerebellum or approximately one-half of the cells in his brain. He cannot pass a driving sobriety test because of coordination problems. He had great problems learning to walk and talk, he is a great listener, but not introspective and as a result has few friends, or romantic relationships. Abilities that are automatic for others are skills for him. It is very hard for him to show emotion, and to know how to socialize. He is employed, however.

Genetic Testing for AD/HD Medications

Harmonyyx, a company based in Cordova, Tennessee, has developed a genetic test that cost $100.00 that can tell a physician which AD/HD medication will help the patient. This ends the need of up to 18 months of medication titration to find the right medication and dosage for the patient. The test is simple. The test is ordered by a physician and a pharmacist can process the results. The patient swishes a large queue tip around their mouth. The entire process takes a few days. From Website:

Betsy Hoza and Alan Smith reviewed all the research on using physical exercise as part of treating AD/HD. They concluded that physical exercise could be used as part of the treatment of AD/HD. They did say that the amount of exercise needs to be determined, as well as does a person’s age make a difference. Additionally, they said physical exercise should be compared to other treatment modalities (i.e., medication, behavioral techniques, etc.) to determine what line of treatment it should be.

Subtyping AD/HD

Joel Nigg, who was involved in the creation of the AD/HD diagnostic criterion for the DSM-5®. He said the field trial study group found there was a group of “purely inattentive type” children who had slower attentional blink, slower processing speed, and significantly fewer symptoms of hyperactive-impulsive symptoms of AD/HD than did AD/HD children and non-impaired children. It was implied that future editions of the DSM will be able to better address this group. Similar observations were made about a subgroup of AD/HD children with “callous-unemotional” symptoms without conduct disorder. These children were seen as having somewhat psychopathic personalities.