Summer 2017 Update

Kevin T. Blake, Ph.D., P.L.C
Tucson, AZ
AD/HD
Researchers from Taiwan found that adults with AD/HD have a 3.4 fold higher risk of developing dementia when compared to non-AD/HD adults after conducting a national population study.

AD/HD Youth and Substance Use

American researchers conducted a study of subjects who were in the original MTA study of AD/HD and compared them to non-AD/HD youth who were not in the MTA study regarding their substance abuse. Coded interviews indicated those with AD/HD were less likely to use substances if they knew others whose lives were ruined by substance abuse than were their non-AD/HD peers.

AD/HD and Autism Comorbidity

National Center for Health Statistics scientists in the U.S. conducted a study where they found one in eight children with AD/HD also meet criteria for autism spectrum disorder. Such children were found to be more impaired, have more comorbidities and both types of AD/HD.

Researchers in Amsterdam found that Methylphenidate did not improve cognitive and/or math abilities in children with AD/HD. Non-AD/HD control students for the most part out performed the treated AD/HD students. However the parent rating of the AD/HD student’s behavior related to math indicated improvement with medication.

French investigators found the attention deficits commonly found in children with Neurofibromatosis type 1 and AD/HD are significantly different.

Lion-Francois, L., et al. (June 6, 2017). Attention and Executive Disorders in Neurofibromatosis 1: Comparison Between NF1 With ADHD Symptomatology (NF1 + ADHD) and ADHD Per Se. Journal of Attention Disorders. DOI: 10.1177/1087054717707579.
A multinational team of scientists (Brazil, U.S.A., & Italy) found that migraine headaches are commonly comorbid with AD/HD.

AD/HD and Empathy

Israeli scientists discovered that children with AD/HD have significantly less reported empathy, and are worse at identifying social faux-pas than their non-impaired peers. However, when properly medicated the AD/HD improved in recognizing social faux-pas to the level of the non-AD/HD children.

Researchers in America investigated relationship difficulties in AD/HD young adults and found their attentional difficulties tended to cause less constructive responded to their partners negative behavior. Additionally, they found the AD/HD young adults hyperactive symptoms caused them relationship difficulty, too.

AD/HD and PTSD

A Syracuse medical school study found that 10% of adults with AD/HD meet criteria for PTSD also. This is compared to 1.6% of the general population who has PTSD. The scientists concluded this was not due to random diagnostic errors and it seemed to follow families.

AD/HD Medication Use in Childhood and Substance Abuse

A group of US scientists found that being treated with medication for AD/HD in childhood does not increase the risk of substance abuse in adolescence and/or adulthood. In fact in boys the risk was significantly less.

Migraine Headaches and AD/HD

A study done by Brazilian and Italian scholars indicated the risk of having migraine headaches is significantly higher than it is with non-AD/HD children.

AD/HD and Oxytocin

Turkish researchers found that children with AD/HD have an alteration in their oxytocin receptor gene that may account for some of their social interaction deficits.

Specific Learning Disorder
Specific Learning Disorder & Suicide

Researchers from Canada found that adults with Specific Learning Disorder are 46% more likely to attempt suicide than their non-impaired peers, and those who had witnessed chronic domestic violence and/or had major depression were even higher attempt risks.

U. S. Investigators reviewed the longitudinal literature regarding specific learning disorder dyscalculia and found it to be stable. Children who were identified as disabled in math in early grades were found to be highly likely to be so in upper grades.

Chinese scientists found that dyslexic Chinese children have phonological processing difficulties in addition to difficulties with lexical tone perception. This may account for some of the deficits in dyslexia.

Researchers from China conducted a study where children with specific learning disability were given 20 days of working memory training to see if it could improve their reading and math. They claimed the results held for 6 months.

Evoked Potential P300 Waves and Dyslexia

Scientists recently found that dyslexic children have lower capacity to process their workload and slower processing than non-impaired children.

FlashWord and Dyslexia

Fifteen students from 8 to 19 with dyslexia were exposed to the FlashWord computer program which uses a tachistoscope to flash words to different hemispheres of the brain. The scientists found that 67% of the students increased their word reading to the automatized level and increased their word reading rate by 20 a minute. These results were confirmed by fMRI scans.

American investigators found that children with mathematics disorder are significantly more often to use faulty number line execution mistakes than non-impaired students.

Autism
Autistic Adults Quality of Life and Social Support

Researchers from the USA found that adults with autism reported significantly lower quality of life and social support as well as experienced significantly perceived stress when compared to non-impaired matched controls. Providing more social support did not appear to mitigate this.

Bullying and Autism

British and Dutch scientists found that in those with autism bullying behaviors are associated with behavior problems and victimization was associated with peer problems; like in typically developing children. Of note, the severity of autistic symptoms did not predict bullying behaviors.

Researchers form Pennsylvania found that adults had difficulty remembering stories over time because they failed to understand the thematic aspect of them. Hence, they have trouble with episodic memory.

American scientists investigated how a group of adults perceive pain compared to a match group of non-impaired adults. Surprisingly the two groups had equal levels of perceived pain when exposed to an acute painful stimuli. However, the autistic group had a significant reduction of perceived pain with chronic pain when compared to the controls. fMRIs of their brains also indicated they processed chronic pain differently that the typical developed.

Canadian investigators found that children with autism experience temporal processing difficulties that contribute to their social speech perception. This was worsened by difficulties they have integrating visual and auditory social information. It is the multitasking of these cognitive abilities that causes much of their social difficulties.

Internet Addiction, AD/HD and/or Autism

Japanese researchers found that 10.8% of children with AD/HD have comorbid internet addiction (IA), 12.5% of those with Autism have IA, and 20% with AD/HD and autism have AI. They suggested that all children with AD/HD and/or autism be evaluated for comorbid IA.

Scientists from Texas found that children with autism and comorbid autism have significant sleep difficulties due to internalizing concerns. These sleep problems cause the significant difficulty in the daily lives.

British investigators found that internal noise in the neurological system of those with autism appears to be associated with their disorder.

University of San Diego scientists found that motion while in the sensor of a diffusion tensor imager by those with autism may account for some of the indication from previous research that they have significantly less white matter in their brains than typically developing children; However; when the motion is controlled for there is still significantly less white matter in those with autism.

Robots and Autism

Researchers from South Korea discovered that children with autism respond similarly to robots and humans modeling appropriate emotional facial recognition and eye contact. Hence, they believed robots could be useful in teaching social skills to autistic children.

Researchers from Australia found after having a large group of parents with autistic children that a significant number of them used complementary and alternative medicine approaches with them. Most of the CAM therapies were determined no to be connected to symptom relief. They suggested these approaches be scientifically investigated.

Williams Syndrome Vs. ASD

Recently it has been discovered that those with Williams Syndrome have an over abundance of the hormone oxytocin which makes those with the disorder over friendly. Hence, this underscores how they are the opposite of those with autism spectrum disorder (ASD), because those with ASD have, too little oxytocin and as a result are aloof.

Oxytocin & Autism

Korean researchers reviewed the literature concerning the use of oxytocin with those with autism. They concluded it was a promising treatment considering its connection to human social behavior, and it is a maker of autism.

Autism, Genetics, & Eye Gaze

A recent study funded by the NICHD indicated the autism is primarily a genetic disorder. They also found that human social visual behavior is controlled by genes. These genes are altered in those with autism and that is why they have altered attention to the mouths and eyes of others. This may indicate a method to diagnose autism in infancy in the future.

Mitochondrial DNA & Autism

Scientists form the University of Washington discovered that Mitochondrial DNA has a significant part in the development of Autism.

Miscellaneous
People with Williams Syndrome are missing the same 26 to 28 genes on the seventh chromosome and this is true of 99.9% of those with the disorder. A girl with Williams Syndrome was found to have 25 of them and did not suffer from the overwhelming friendliness often seen in those with the disorder.

Williams Syndrome and Culture

Japanese children with Williams Syndrome suffer more socially than children with the disorder in the US, because in Japan it is taboo to do such things like hug a stranger. Japanese children with Williams Syndrome are far more likely to be institutionalized than they are in the US.

People with Williams Syndrome have no racial bias.