

Summer 2017 Third Update

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Autism

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Driving and Autism

American and Dutch researchers found that training with virtual reality driving simulators can significantly improve driving skills in students with autism.

Cox, D.J., et al. (May 24, 2017). Can Youth with Autism Spectrum Disorder Use Virtual Reality Driving Simulation Training to Evaluate and Improve Driving Performance? An Exploratory Study. Journal of Autism and Developmental Disorders. DOI: 10.1007/s10803-017-3164-7.

Autism and Camouflaging

British, Taiwanese, and Canadian scientists interviewed 92 adults with ASD of 15 different nationalities and found they attempt to camouflage their symptoms to fit in and to make social connections with others. They also try to mask their symptoms. This causes extreme exhaustion and fatigue in the short run. Often they obtain their goal, but at the expense of their mental health, self-esteem and their access to services.

Petrides, K.V., et al. (May 19, 2017). “Putting on My Best Normal”: Social Camouflaging in Adults with Autism Spectrum Conditions. Journal of Autism and Developmental Disorders. DOI: 10.1007/s10803-017-3166-5.

Autism and Reasoning

British researchers found that adolescents and adults with ASD have weaker intuitive reasoning and better deductive reasoning.

Brosnan, M., et al. (May 4, 2017). Brief Report: Intuitive and Reflective Reasoning in Autism Spectrum Disorder. Journal of Autism and Developmental Disorders. DOI: 10.1007/s10803-017-3131-3.

Autism and Facial Expression

British scientists found that children with ASD and low intellectual functioning (<80 IQ) had significant difficulty interpreting angry emotions when compared to controls. This was particularly so for subtler forms of angry expressions. The scientists interpreted this as indicating that low functioning ASD children have difficulty processing facial expressions due to a differing structure of emotional categories.

Whitaker, L.R., et al. (June 3, 2017). Brief Report: Is Impaired Classification of Subtle Facial Expressions in Children with Autism Spectrum Disorders Related to Atypical Emotion Category Boundaries? . Journal of Autism and Developmental Disorders. DOI: 10.1007/s10803-017-3174-5.

Autism & Methylphenidate

American researchers found that children with ASD and Comorbid AD/HD tolerated 6 week trials with low to moderate doses of liquid methylphenidate well and experienced a significant reduction in their AD/HD symptomatology.

Kim, S.-J., et al. (May 5, 2017). Dose-Response Effects of Long-Acting Liquid Methylphenidate in Children with Attention Deficit/Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD): A Pilot Study. [Journal of Autism and Developmental Disorders](https://doi.org/10.1007/s10803-017-3125-1). DOI: 10.1007/s10803-017-3125-1.

Autism, Cognitive Behavioral Therapy, and Counseling

A group of British and American professors found no difference between Cognitive Behavioral Therapy and traditional counseling in terms of treating adolescents with ASD. This may indicate the techniques may not work with this population because they have difficulty forming alliances with counselors/therapists.

Murphy, S.M., et al. (August 2, 2017). Cognitive Behaviour Therapy Versus a Counselling Intervention for Anxiety in Young People with High-Functioning Autism Spectrum Disorders: A Pilot Randomised Controlled Trial. . [Journal of Autism and Developmental Disorders](https://doi.org/10.1007/s10803-017-3252-8). DOI: 10.1007/s10803-017-3252-8.

Autism and Pragmatic Language

Scientists from California found that children with autism are at higher risk for anxiety and externalizing behaviors due to their pragmatic language deficits.

Rodas, N.V., et al. (August 3, 2017). Structural and Pragmatic Language in Children with ASD: Longitudinal Impact on Anxiety and Externalizing Behaviors. Journal of Autism and Developmental Disorders. DOI: 10.1007/s10803-017-3265-3.

Elderly People with Autism

Researchers from the Netherlands compared a matched group of normal IQ ASD elderly adults and neurotypical elderly adults and found the only area of significant weakness the ASD group had was in speed of information processing.

Spek, A.A., et al. (2017). The intellectual profiles of high functioning elderly persons with an autism spectrum disorder. Journal of Autism. DOI: 10.7243/2054-992X-4-3.

Judging Facial Attractiveness and Autism

German scientists found that adults with ASD have a lower sense of knowing what is an attractive face than do neurotypicals.

Roy, M., et al. (2017). In the eye of the beholder-rating of facial attractiveness in adult Asperger syndrome. Journal of Autism. DOI: 10.7243/2054-992X-3-2.

Autism and College

An American researcher found that those who successfully completed a bachelor degree with autism were more self-aware, loved college and found alternative ways to socialize.

Drake, S. et al. (2017). College experience of academically successful students with autism. Journal of Autism. DOI: 10.7243/2054-992X-1-5.

Autism and Alternative Medicine

Australian scientists found a high rate of complimentary and alternative medicine (CAM) therapies used by parents of ASD children to treat their children. There was no relationship to how severely the children were affected by ASD and the use of CAM methods. The scientists stated the CAM methods are not known to help with the symptoms of ASD, but encouraged more research to determine if secondary symptoms may be alleviated.

Granich, J., et al. (2017). High use of complementary and alternative medication among children with autism is not associated with the severity of core symptoms. Journal of Autism. DOI: 10.7243/2054-992X-1-4.

Autism Services Across The Age Span

A large Canadian Study of autistic people across the age span indicated they rarely receive services that meet their priority needs, and this is particularly true as they get older.

Lai, J.K.Y., et al. (April 6, 2017). Priority service needs and receipt across the lifespan for individuals with autism spectrum disorder. [Autism Research](https://doi.org/10.1002/aur.1786). DOI: 10.1002/aur.1786/full.

Autism and Serotonin (5-Hydroxytryptamine, 5-HT)

A group of American scientists looked at the frequent occurrence of elevated serotonin (5-hydroxytryptamine, 5-HT) levels in blood platelets in those with autism. More specifically they tried to determine if the level of this chemical was related to gender. They found that pre-pubescent males with autism has significantly more of it than females, however, there was no differences in the levels of the genders after puberty.

Shuffery, L.C., et al. (April 12, 2017). Is there sexual dimorphism of hyperserotonemia in autism spectrum disorder? Autism Research. DOI: 10.1002/aur.1791/full.

Autism and Executive Function

Researchers from the Washington, DC area found that females with autism have significantly more difficulty with executive functions than males with ASD.

White, E.I., et al. (June 1, 2017). Sex differences in parent-reported executive functioning and adaptive behavior in children and young adults with autism spectrum disorder. Autism Research. DOI: 10.1002/aur.1811.

Autism and Socialization

Researchers from the United States found that children with autism have significantly more difficulty with body synchronization during socialization than their non-impaired peers. The autistic children's body movements were significantly slower, more variable, and poorly timed. They also had significantly less developed motor skills.

Fitzpatrick, P., et al. (June 7, 2017). Evaluating the importance of social motor synchronization and motor skill for understanding autism. Autism Research. DOI: 10.1002/aur.1808.

Autism and Language Processing

Researchers from the Netherlands and Denmark found that autistic children have significant difficulty in rapid auditory processing of language stimuli when compared to controls.

Foss-Feig, J.H., et al. (June 20, 2017). Audition-specific temporal processing deficits associated with language function in children with autism spectrum disorder. Autism Research. DOI: 10.1002/aur.1820.

Autism and Suicide

Researchers from the University of Coventry found that adults with autism aged 18-30 are significantly more at risk for suicide than the general population. This is due to the burden of their high level of anxiety and depression as well as not feeling they belong in the world.

Pelton, M.K., et al. (July 7, 2017). Are autistic traits associated with suicidality? A test of the interpersonal-psychological theory of suicide in a non-clinical young adult sample. Autism Research. DOI: 10.1002/aur.1828.

Autism and Sexuality

Australian and American professors found have difficulty understand privacy, engage in significantly less social behavior, tend to be involved in inappropriate sexual behavior, they have significantly less sex education, and they are concerned about themselves. All this makes them vulnerable to be taken advantage of.

Hancock, G.C.I., et al. (July 10, 2017). Socio-sexual functioning in autism spectrum disorder: A systematic review and meta-analyses of existing literature. Autism Research. DOI: 10.1002/aur.1831.

Social Motivation and Autism

Canadian scientists found that autistic children do not have the sensory bias toward attending to faces and movement like typically developing children do. This would tend to indicate they have a lack of social motivation.

Burnside, K., et al. (August 1, 2017). Social motivation and implicit theory of mind in children with autism spectrum disorder. Autism Research. DOI: [10.1002/aur.1836](https://doi.org/10.1002/aur.1836).

Autism and Prosody

Researchers from Texas found that adults with autism speak in emotional phrases that are longer, louder and much more variable in pitch than those who were not autistic. Both autistic and non-autistic adults were just as accurate in identifying the emotion autistic adults were expressing, but neither group saw the displays as coming off as natural.

Hubbard, D.J., et al. (August 17, 2017). Production and perception of emotional prosody by adults with autism spectrum disorder. [Autism Research](https://doi.org/10.1002/aur.1847). DOI: 10.1002/aur.1847.

Autism and Counseling

Researchers from Brigham Young University found that college students with autism came to counseling with the same amount of distress as their non-impaired peers. However, the autistic students took significantly longer to meet their therapeutic goals and had significantly more therapy sessions.

Anderberg, E., et al. (August 17, 2017). Sticking with it: Psychotherapy outcomes for adults with autism spectrum disorder in a university counseling center setting. Autism Research. DOI: 10.1002/aur.1843.

AD/HD



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Neurobiofeedback and AD/HD

A group of German and Hungarian scientists conducted the first triple blind randomized study on neurobiofeedback treatment with adult with AD/HD there was a neurobiofeedback group, and a sham neurobiofeedback group and a group that received group therapy. The results indicated there was no difference between the groups.

Schonenberg, M., et al. (August 9, 2017). Neurofeedback, sham neurofeedback, and cognitive-behavioural group therapy in adults with attention-deficit hyperactivity disorder: a triple-blind, randomised, controlled trial. [Lancet Psychiatry](https://doi.org/10.1016/S2215-0366(17)30291-2). DOI: [10.1016/S2215-0366\(17\)30291-2](https://doi.org/10.1016/S2215-0366(17)30291-2).

Specific Learning Disability



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Short-Term Memory and Reading

Researchers from South Korea found that Korean childrens' short-term memory abilities directly related to word reading, metalinguistic awareness and Rapid Automated Naming.

Kim, Y.-S.G., et al. (August 11, 2017). Unpacking Direct and Indirect Relationships of Short-Term Memory to Word Reading: Evidence From Korean-Speaking Children. Journal of Learning Disabilities. DOI: 10.1177/0022219417724817.

Mathematics Disability and Executive Function

Finish researchers found that adolescent students with math disability had significantly more difficulty with, “...problems with distractibility, directing attention, shifting attention, initiative, execution of action, planning, and evaluation than...”, than a group of low math achieving adolescent students. The math disabled students had more difficulty in all executive functions than average and above achieving student in math , except in hyperactivity and impulsivity. Male students had more problems with executive function than female students. This difference was not so pronounced in math disabled students.

Holm, M.E., et al. (July 14, 2017). Behavioral Executive Functions Among Adolescents With Mathematics Difficulties. Journal of Learning Disabilities. DOI: 10.1177/0022219417720684.

Suicide and Specific Learning Disability

Researchers from the University of Toronto found that adults with specific learning disability were 46% more likely to attempt suicide than their non-impaired peers.

Fuller-Thomson, E., et al. (July 21, 2017). Suicide Attempts Among Individuals With Specific Learning Disorders: An Underrecognized Issue. Journal of Learning Disabilities. DOI: 10.1177/0022219417714776

Depression, Anxiety and Dyslexia

Researchers from the University of Georgia found that college students with dyslexia are significantly more apt to underreport symptoms of depression and anxiety than their non-impaired peers. The more severe their dyslexia the more apt they are to underreport their depressive symptoms. They also have a strong tendency to experience significantly more anxiety than their non-dyslexic peers.

Nelson, J.M., et al. (July 26, 2017). Socially Desirable Responding and College Students with Dyslexia: Implications for the Assessment of Anxiety and Depression. Dyslexia. DOI: 10.1002/dys.1563.

Serial Memory and Dyslexia

British and American scientists reported findings of significant serial order memory in dyslexic children for spoken digits and running span (fixed space serial memory) and for spatial locations, and running span only when compared to non-dyslexic children.

Cowen, N., et al. (May 12, 2017). Short-term Memory in Childhood Dyslexia: Deficient Serial Order in Multiple Modalities. Dyslexia. DOI: 10.1002/dys.1557.

Dyslexia and Executive Function

Researchers from Great Britton found that adult dyslexics primary cause of their dyslexia is their phonemic processing deficit, but they were not able to rule out executive function deficits that may exacerbate their symptoms.

Smith-Spark, J.H., et al. (May 11, 2017). Verbal and Non-verbal Fluency in Adults with Developmental Dyslexia: Phonological Processing or Executive Control Problems? Dyslexia. DOI: 10.1002/dys.1558.

Dyslexia and Facial Expressions

French scientists found that dyslexic children have significantly weaker postural stability when looking at an unpleasant facial expression. They also were found to have significantly different strategies of visual scanning than the typical developing child, especially when viewing negative facial expressions. They concluded dyslexic children have difficulty processing negative facial expressions due to their differing visual scanning.

Gouleme, N., et al. (July 4, 2017). Postural Control in Children with Dyslexia: Effects of Emotional Stimuli in a Dual-Task Environment. Dyslexia. DOI: 10.1002/dys.1559/full.

Dyslexia and Developmental Coordination Disorder

French researchers found that the level of phonological processing and visual-motor integration difficulties could accurately predict their reading skills in one year. The visual motor deficits are different in what you would see in children with developmental coordination disorder and dyslexia and comorbid developmental coordination disorder.

Bellocchi, S., et al. (July 10, 2017). Exploring the Link between Visual Perception, Visual–Motor Integration, and Reading in Normal Developing and Impaired Children using DTVP-2. Dyslexia. DOI: 10.1002/dys.1561.