Current Awareness Bulletin

**Autism**

**MARCH 2016**

*Keeping you up to date with the latest developments in your area*

<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Up to date journal abstracts</strong></td>
</tr>
<tr>
<td>Resources on the web</td>
</tr>
<tr>
<td><strong>Library Catalogue</strong></td>
</tr>
<tr>
<td>Help select library stock</td>
</tr>
<tr>
<td>Links to the latest issues of key journals and their table of contents</td>
</tr>
<tr>
<td>Trust Libraries and Staff Contact Details</td>
</tr>
</tbody>
</table>

**To go straight to any of the above**

*Press ctrl and click on the heading of choice.*

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<table>
<thead>
<tr>
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<td><strong>Citation:</strong> Autistic spectrum disorder: what should you know?, 2016, vol./is. 12/1(21-23), 17496799</td>
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<th>Title: Developmental steps in theory of mind of typical Chinese children and Chinese children with autism spectrum disorder</th>
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<td><strong>Citation:</strong> Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(210-220), 1750-9467;1878-0237</td>
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<td><strong>Author(s):</strong> Zhang T., Shao Z., Zhang Y.</td>
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<td><strong>Abstract:</strong> This study investigated the developmental sequence of theory of mind (ToM) of 76 typical preschool children and 34 children with autism spectrum disorder (ASD) using the five-task scale of ToM. Results showed that the developmental sequence of typical children in the five ToM tasks differed from that of children with ASD. Specifically, typical children had the following sequence for the five tasks from the easiest to the hardest: diverse desire, knowledge access, diverse belief, content false belief, and hidden emotion tasks. Children with ASD had a significantly poorer performance on ToM tasks than typical children and had a varied sequence for diverse belief and knowledge. The developmental sequence of ToM of both Chinese typical children and children with ASD is different from those of children from other countries as presented by previous studies. The present study provides substantial evidence supporting the cultural and atypical developmental influence on ToM development.</td>
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<th>Title: Abnormal Pressure Pain, Touch Sensitivity, Proprioception, and Manual Dexterity in Children with Autism Spectrum Disorders</th>
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<td><strong>Citation:</strong> Neural Plasticity, 2016, vol./is. 2016/(no pagination), 2090-5904;1687-5443 (2016)</td>
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<td><strong>Author(s):</strong> Riquelme I., Hatem S.M., Montoya P.</td>
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<td><strong>Abstract:</strong> Children with autism spectrum disorders (ASD) often display an abnormal reactivity to tactile stimuli, altered pain perception, and lower motor skills than healthy children. Nevertheless, these motor and sensory deficits have been mostly assessed by using clinical observation and self-report questionnaires. The present study aims to explore somatosensory and motor function in children with ASD by using standardized and objective testing procedures. Methods. Tactile and pressure pain thresholds in hands and lips, stereognosis, proprioception, and fine motor performance of the upper limbs were assessed in high-functioning children with ASD (n = 27) and compared with typically developing peers (n = 30). Results. Children with ASD showed increased pain sensitivity, increased touch sensitivity in C-Tactile afferents innervated areas, and diminished fine motor performance and proprioception compared to healthy children. No group differences were observed for stereognosis. Conclusion. Increased pain sensitivity and increased touch sensitivity in areas classically related to affective touch (C-Tactile afferents innervated areas) may explain typical avoiding behaviors associated with hypersensitivity. Both sensory and motor impairments should be assessed and treated in children with ASD.</td>
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<td><strong>Citation:</strong> Environment International, March 2016, vol./is. 88/(288-298), 0160-4120;1873-6750</td>
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**Author(s):** Sealey L.A., Hughes B.W., Sriskanda A.N., Guest J.R., Gibson A.D., Johnson-Williams L., Pace D.G., Bagasra O.

**Abstract:** Autism spectrum disorders (ASD) are highly heterogeneous developmental conditions characterized by deficits in social interaction, verbal and nonverbal communication, and obsessive/stereotyped patterns of behavior and repetitive movements. Social interaction impairments are the most characteristic deficits in ASD. There is also evidence of impoverished language and empathy, a profound inability to use standard nonverbal behaviors (eye contact, affective expression) to regulate social interactions with others, difficulties in showing empathy, failure to share enjoyment, interests and achievements with others, and a lack of social and emotional reciprocity. In developed countries, it is now reported that 1%-1.5% of children have ASD, and in the US 2015 CDC reports that approximately one in 45 children suffer from ASD. Despite the intense research focus on ASD in the last decade, the underlying etiology remains unknown. Genetic research involving twins and family studies strongly supports a significant contribution of environmental factors in addition to genetic factors in ASD etiology. A comprehensive literature search has implicated several environmental factors associated with the development of ASD. These include pesticides, phthalates, polychlorinated biphenyls, solvents, air pollutants, fragrances, glyphosate and heavy metals, especially aluminum used in vaccines as adjuvant. Importantly, the majority of these toxicants are some of the most common ingredients in cosmetics and herbicides to which almost all of us are regularly exposed to in the form of fragrances, face makeup, cologne, air fresheners, food flavors, detergents, insecticides and herbicides. In this review we describe various scientific data to show the role of environmental factors in ASD.

**Source:** EMBASE

**Title:** Risk of cancer in adult people diagnosed with infantile autism in childhood: A longitudinal case control study based on hospital discharge diagnoses

**Citation:** Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(203-209), 1750-9467;1878-0237

**Author(s):** Mouridsen S.E., Rich B., Isager T.

**Abstract:** Research dealing with adults with autism spectrum disorders (ASD) noticeably lags behind studies of children and young individuals with ASD. The objective of this study is to compare the incidence and types of cancer in a clinical sample of 118 adult people diagnosed with infantile autism (IA) in childhood with 336 sex and age matched controls from the general population. All participants were screened through the nationwide Danish National Hospital Register. The average study interval of both groups was 37.2 years, and mean age at follow-up was 49.6 years. Of the 118 people with IA, 8 (6.8%) were registered with at least one cancer diagnosis against 17 (5.1%) in the comparison group (p = 0.49; OR = 1.4; 95% CI 0.6-3.3). Significant group differences were also lacking with respect to specific cancer types.

**Source:** EMBASE

**Title:** The quality of life of parents of children with autism spectrum disorder: A systematic review

**Citation:** Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(36-49), 1750-9467;1878-0237

**Author(s):** Vasilopoulou E., Nisbet J.

**Abstract:** Background Previous research has raised concerns about the quality of life (QoL) of parents of children with autism spectrum disorder (ASD). A better understanding of parental QoL can inform clinicians and policymakers and lead to improved outcomes for both parents and children. Aims This review aimed to systematically examine studies measuring the QoL among parents of children with ASD (<18 years) and to investigate its parental, child-related and contextual associated factors. Methodology An electronic database search was conducted using Medline, Psycinfo, Embase, CINAHL, Biosis, ASSIA, Social Services Abstracts, Sociological Abstracts and Open grey. Results This review indicated poorer QoL among parents of children with ASD compared to parents of typically developing children or to population norms. Variables associated with lower parental QoL within this group included child behavioural difficulties, unemployment, being a mother and lack of social support. Conclusion This review verified previous reports on lower QoL among parents of children with ASD and highlighted potential areas of support. Implications for future research, policy and practice are discussed.

**Source:** EMBASE

**Title:** A critical review of outcome measures used to evaluate the effectiveness of comprehensive, community based treatment for young children with ASD

**Citation:** Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(221-234), 1750-9467;1878-0237

**Author(s):** Stolte M., Hodgetts S., Smith V.
| **Abstract:** This review critically evaluates reporting and use of standardized measures to assess community based treatments for young children with Autism Spectrum Disorder (ASD). The Standards for Educational and Psychological Testing (AERPA, APA & NCME, 1999), a best practice framework for reporting standardized test results, guides the evaluation. Fifty three different outcome measures are identified across 45 studies representing twelve countries. Adaptive behavior, specifically the Vineland Adaptive Behavior Scales and cognitive measures continue to be primary outcome tools, despite a lack of clear fit to core ASD diagnostic constructs. Behavioral, ASD specific, language, social communication, and family wellness tools are under represented. Reporting strengths are use of multiple measures, clear sample descriptions, and use of specialized tools for ASD. Reporting weaknesses are assessment bias, test substitution, and under reporting of test modifications. Clinical and research implications are discussed.  
**Source:** EMBASE  

| **Title:** The impact of attention deficit/hyperactivity disorder on adaptive functioning in children diagnosed late with autism spectrum disorder - A comparative analysis  
**Citation:** Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(28-35), 1750-9467;1878-0237  
**Author(s):** Magnusdottir K., Saemundsen E., Einarsson B.L., Magnusson P., Njardvik U.  
**Abstract:** This study investigated the relationship between ASD, ADHD and adaptive behavior in children aged 7-17 years at the time of their first ASD diagnosis. Results showed that 68.1% of the participants had a clinical diagnosis of ADHD in addition to ASD. A hypothesis of an additive negative effect of ADHD on adaptive behavior of children with ASD was partly supported. When controlling for age, gender, IQ, and autistic symptoms, communication was the only adaptive behavior domain that remained significant. Further analyses of the data showed that this effect was limited to high functioning boys (IQ>80). The reasons why ADHD did not impinge on the adaptive behavior of low functioning boys and low and high functioning girls are discussed.  
**Source:** EMBASE  

| **Title:** Remote versus face-to-face delivery of early intervention programs for children with autism spectrum disorders: Perceptions of rural families and service providers  
**Citation:** Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(1-14), 1750-9467;1878-0237  
**Author(s):** Ashburner J., Vickerstaff S., Beetge J., Copley J.  
**Abstract:** To date, research investigating the use of remote technologies to extend face-to-face early intervention services for children with autism spectrum disorder (ASD) is limited. This study explored the perceived advantages and disadvantages of a follow-up early intervention service delivered via remote technology, as compared to previous face-to-face services. The remote technology service focused on parent coaching rather than direct intervention with the child. A generic method of qualitative enquiry involving semi-structured interviews was used to explore the experiences of four rurally-based parents of children with ASD, eight rurally-based service providers, and a metropolitan-based ASD-specialist in regards to their participation in remote technology and face-to-face services. Qualitative content analysis revealed that the parents, service providers and the ASD-specialist perceived remote technologies to be beneficial in: (a) upskilling of parents and local service provider; (b) reducing cost, time and travel; (c) flexible, regular, ongoing support; (d) enabling families to access support from home, and (e) enhancing connections between team members. However, the participants were often frustrated by technical difficulties, and all agreed that remote technology should augment rather than replace face-to-face contact. This study provides preliminary support for the use of remote technologies to extend early intervention services for children with ASD.  
**Source:** EMBASE  

| **Title:** A teaching procedure to help children with autistic spectrum disorder to label emotions  
**Citation:** Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(63-72), 1750-9467;1878-0237  
**Author(s):** Conallen K., Reed P.  
**Abstract:** This study explored a teaching procedure designed to enable children with autistic spectrum disorder Autism Spectrum Disorder (ASD) to label (tact) the emotions of others. Ten children, aged between 6.1 and 9.6 years, were taught the relevant vocabulary to label a set of emotions (e.g., happy, sad, angry), to match these tacts to illustrated situations, to generalize these tacts to novel situations, and to tact their own emotions. At baseline, participants showed no ability to match emotion cards to situations in which those emotions would occur. Participants were taught to tact these emotions by first matching-to-sample the facial expressions of happy, sad and angry to illustrations of situations which reflected each emotion. This was followed by a tacting phase, during which participants were taught to match emotion cards to particular
situation cards. In the first of two generalization probes, participants were able to tact happy, sad, or angry when shown untrained situation cards (probe 1), and could choose those things that made them happy, sad or angry from an additional set of untrained illustrations (probe 2), showing an improved understanding of their own emotions and those of other, than was found during baseline.

Source: EMBASE

Title: Do children with autism spectrum disorders have motor learning difficulties?

Citation: Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(50-62), 1750-9467;1878-0237

Author(s): Bo J., Lee C.-M., Colbert A., Shen B.

Abstract: Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by social and communication impairments as well as a wide range of behavioral symptoms. For years, motor disturbance reported in ASD has not been treated as a core deficit because of the overwhelming problems in sociability and communication. Recent studies, however, reveal that motor deficits are also fundamental to ASD presentation and contribute to the core symptoms of ASD. Untreated motor problems can persist well into adolescence and adulthood, resulting in long-term physical, psychological, and behavioral issues in individuals with ASD. Thus, the ability to understand and address the overall picture of a child with ASD, including motor dysfunction, has become a critical need. This review focuses on sensorimotor adaptation and motor sequence learning in children with ASD and presents related evidence that compromised motor learning may play a critical role in motor dysfunctions of ASD. It addresses possible factors that explain controversial findings in the literature and discusses potential strategies for facilitating motor learning. Future intervention studies should address the importance of motor learning beyond social and language domains in ASD.

Source: EMBASE

Title: The impact of attention deficit/hyperactivity disorder on adaptive functioning in children diagnosed late with autism spectrum disorder - A comparative analysis

Citation: Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(28-35), 1750-9467;1878-0237

Author(s): Magnusdottir K., Saemundsen E., Einarsson B.L., Magnnusson P., Njardvik U.

Abstract: This study investigated the relationship between ASD, ADHD and adaptive behavior in children aged 7-17 years at the time of their first ASD diagnosis. Results showed that 68.1% of the participants had a clinical diagnosis of ADHD in addition to ASD. A hypothesis of an additive negative effect of ADHD on adaptive behavior of children with ASD was partly supported. When controlling for age, gender, IQ, and autistic symptoms, communication was the only adaptive behavior domain that remained significant. Further analyses of the data showed that this effect was limited to high functioning boys (IQ>80). The reasons why ADHD did not impinge on the adaptive behavior of low functioning boys and low and high functioning girls are discussed.

Source: EMBASE

Title: Remote versus face-to-face delivery of early intervention programs for children with autism spectrum disorders: Perceptions of rural families and service providers

Citation: Research in Autism Spectrum Disorders, March 2016, vol./is. 23/(1-14), 1750-9467;1878-0237

Author(s): Ashburner J., Vickerstaff S., Beetge J., Copley J.

Abstract: To date, research investigating the use of remote technologies to extend face-to-face early intervention services for children with autism spectrum disorder (ASD) is limited. This study explored the perceived advantages and disadvantages of a follow-up early intervention service delivered via remote technology, as compared to previous face-to-face services. The remote technology service focused on parent coaching rather than direct intervention with the child. A generic method of qualitative enquiry involving semi-structured interviews was used to explore the experiences of four rurally-based parents of children with ASD, eight rurally-based service providers, and a metropolitan-based ASD-specialist in regards to their participation in remote technology and face-to-face services. Qualitative content analysis revealed that the parents, service providers and the ASD-specialist perceived remote technologies to be beneficial in: (a) upskilling of parents and local service provider; (b) reducing cost, time and travel; (c) flexible, regular, ongoing support; (d) enabling families to access support from home, and (e) enhancing connections between team members. However, the participants were often frustrated by technical difficulties, and all agreed that remote technology should augment rather than replace face-to-face contact. This study provides preliminary support for the use of remote technologies to extend early intervention services for children with ASD.

Source: EMBASE
Title: Disruption of POGZ Is Associated with Intellectual Disability and Autism Spectrum Disorders.

Citation: American journal of human genetics, Mar 2016, vol. 98, no. 3, p. 541-552, 1537-6605


Abstract: Intellectual disability (ID) and autism spectrum disorders (ASD) are genetically heterogeneous, and a significant number of genes have been associated with both conditions. A few mutations in POGZ have been reported in recent exome studies; however, these studies do not provide detailed clinical information. We collected the clinical and molecular data of 25 individuals with disruptive mutations in POGZ by diagnostic whole-exome, whole-genome, or targeted sequencing of 5,223 individuals with neurodevelopmental disorders (ID primarily) or by targeted resequencing of this locus in 12,041 individuals with ASD and/or ID. The rarity of disruptive mutations among unaffected individuals (2/49,401) highlights the significance (p = 4.19 × 10⁻13; odds ratio = 35.8) and penetrance (65.9%) of this genetic subtype with respect to ASD and ID. By studying the entire cohort, we defined common phenotypic features of POGZ individuals, including variable levels of developmental delay (DD) and more severe speech and language delay in comparison to the severity of motor delay and coordination issues. We also identified significant associations with vision problems, microcephaly, hyperactivity, a tendency to obesity, and feeding difficulties. Some features might be explained by the high expression of POGZ, particularly in the cerebellum and pituitary, early in fetal brain development. We conducted parallel studies in Drosophila by inducing conditional knockdown of the POGZ ortholog row, further confirming that dosage of POGZ, specifically in neurons, is essential for normal learning in a habituation paradigm. Combined, the data underscore the pathogenicity of loss-of-function mutations in POGZ and define a POGZ-related phenotype enriched in specific features.

Source: Medline

Title: A novel 3q29 deletion associated with autism, intellectual disability, psychiatric disorders, and obesity.


Author(s): Biamino, Elisa, Di Gregorio, Eleonora, Belligni, Elga Fabia, Keller, Roberto, Riberi, Evelise, Gandione, Marina, Calcìa, Alessandro, Mancini, Cecilia, Giorgio, Elisa, Cavaleri, Simona, Pappi, Patrizia, Talarico, Flavia, Fea, Antonio M, De Rubeis, Silvia, Cirillo Silengo, Margherita, Ferrero, Giovanni Battista, Brusco, Alfredo

Abstract: Copy number variation (CNV) has been associated with a variety of neuropsychiatric disorders, including intellectual disability/developmental delay (ID/DD), autism spectrum disorder (ASD), and schizophrenia (SCZ). Often, individuals carrying the same pathogenic CNV display high clinical variability. By array-CGH analysis, we identified a novel familial 3q29 deletion (1.36 Mb), centromeric to the 3q29 deletion region, which manifests with variable expressivity. The deletion was identified in a 3-year-old girl diagnosed with ID/DD and autism and segregated in six family members, all affected by severe psychiatric disorders including schizophrenia, major depression, anxiety disorder, and personality disorder. All individuals carrying the deletion were overweight or obese, and anomalies compatible with optic atrophy were observed in three out of four cases examined. Amongst the 10 genes encompassed by the deletion, the haploinsufficiency of Optic Atrophy 1 (OPA1), associated with autosomal dominant optic atrophy, is likely responsible for the ophthalmological anomalies. We hypothesize that the haploinsufficiency of ATPase type 13A4 (ATP13A4) and/or Hairy/Enhancer of Split Drosophila homolog 1 (HES1) contribute to the neuropsychiatric phenotype, while HES1 deletion might underlie the overweight/obesity. In conclusion, we propose a novel contiguous gene syndrome due to a proximal 3q29 deletion variably associated with autism, ID/DD, psychiatric traits and overweight/obesity.

Source: Medline

Title: Heart Rate Variability and Skin Conductance During Repetitive TMS Course in Children with Autism.

Citation: Applied psychophysiology and biofeedback, Mar 2016, vol. 41, no. 1, p. 47-60, 1573-3270
**Abstract:** Autism spectrum disorder (ASD) is a developmental disorder marked by difficulty in social interactions and communication. ASD also often present symptoms of autonomic nervous system (ANS) functioning abnormalities. In individuals with autism the sympathetic branch of the ANS presents an over-activation on a background of the parasympathetic activity deficits, creating an autonomic imbalance, evidenced by a faster heart rate with little variation and increased tonic electrodermal activity. The objective of this study was to explore the effect of 12 sessions of 0.5 Hz repetitive transcranial magnetic stimulation (rTMS) over dorsolateral prefrontal cortex (DLPFC) on autonomic activity in children with ASD. Electrocardiogram and skin conductance level (SCL) were recorded and analyzed during each session of rTMS. The measures of interest were time domain (i.e., R-R intervals, standard deviation of cardiac intervals, NN50-cardio-intervals >50 ms different from preceding interval) and frequency domain heart rate variability (HRV) indices [i.e., power of high frequency (HF) and low frequency (LF) components of HRV spectrum, LF/HF ratio]. Based on our prior pilot studies it was proposed that the course of 12 weekly inhibitory low-frequency rTMS bilaterally applied to the DLPFC will improve autonomic balance probably through improved frontal inhibition of the ANS activity, and will be manifested in an increased length of cardiointervals and their variability, and in higher frequency-domain HRV in a form of increased HF power, decreased LF power, resulting in decreased LF/HF ratio, and in decreased SCL. Our post-12 TMS results showed significant increases in cardiac intervals variability measures and decrease of tonic SCL indicative of increased cardiac vagal control and reduced sympathetic arousal. Behavioral evaluations showed decreased irritability, hyperactivity, stereotype behavior and compulsive behavior ratings that correlated with several autonomic variables.

**Title:** Behavioral, Cognitive, and Motor Preparation Deficits in a Visual Cued Spatial Attention Task in Autism Spectrum Disorder.

**Citation:** Applied psychophysiology and biofeedback, Mar 2016, vol. 41, no. 1, p. 81-92, 1573-3270

**Abstract:** Abnormalities in motor skills have been regarded as part of the symptomatology characterizing autism spectrum disorder (ASD). It has been estimated that 80 % of subjects with autism display "motor dyspraxia" or clumsiness that are not readily identified in a routine neurological examination. In this study we used behavioral measures, event-related potentials (ERP), and lateralized readiness potential (LRP) to study cognitive and motor preparation deficits contributing to the dyspraxia of autism. A modified Posner cueing task was used to analyze motor preparation abnormalities in children with autism and in typically developing children (N = 30/per group). In this task, subjects engage in preparing motor response based on a visual cue, and then execute a motor movement based on the subsequent imperative stimulus. The experimental conditions, such as the validity of the cue and the spatial location of the target stimuli were manipulated to influence motor response selection, preparation, and execution. Reaction time and accuracy benefited from validly cued targets in both groups, while main effects of target spatial position were more obvious in the autism group. The main ERP findings were prolonged and more negative early frontal potentials in the ASD in incongruent trials in both types of spatial location. The LRP amplitude was larger in incongruent trials and had stronger effect in the children with ASD. These effects were better expressed at the earlier stages of LRP, specifically those related to response selection, and showed difficulties at the cognitive phase of stimulus processing rather that at the motor execution stage. The LRP measures at different stages reflect the chronology of cognitive aspects of movement preparation and are sensitive to manipulations of cue correctness, thus representing very useful biomarker in autism dyspraxia research. Future studies may use more advance and diverse manipulations of movement preparation demands in testing more refined specifics of dyspraxia symptoms to investigate functional connectivity abnormalities underlying motor skills deficits in autism.

**Source:** Medline
### Citation: Augmentative and alternative communication (Baltimore, Md. : 1985), Mar 2016, vol. 32, no. 1, p. 58-68, 1477-3848 (March 2016)

**Author(s):** Agius, May M, Vance, Margaret

**Abstract:** Few studies have compared the efficacy of the Picture Exchange Communication System (PECS) and iPads used as speech generating devices (SGDs), and none have targeted preschoolers. This study compares the relative efficacy of PECS and an iPad/SGD with three preschool-aged children with autism spectrum disorder and limited functional speech who lived in Malta. The study utilized an adapted alternating treatment design embedded in a multiple baseline design, with requesting of reinforcers as the dependent variable. Visual analysis of the results indicated that all participants required more prompted trials and sessions for the iPad/SGD condition. All participants learned a three step navigational sequence on the iPad. Participant preference probes were inconclusive and were not linked to speed of acquisition of requesting skills. Results suggest that both PECS and an iPad could be appropriate for teaching requesting skills to beginning communicators.

**Source:** Medline

| Title: Disruption of structural covariance networks for language in autism is modulated by verbal ability. |
| Citation: Brain structure & function, Mar 2016, vol. 221, no. 2, p. 1017-1032, 1863-2661 (March 2016) |
| **Author(s):** Sharda, Megha, Khundrakpam, Budhachandra S, Evans, Alan C, Singh, Nandini C |
| **Abstract:** The presence of widespread speech and language deficits is a core feature of autism spectrum disorders (ASD). These impairments have often been attributed to altered connections between brain regions. Recent developments in anatomical correlation-based approaches to map structural covariance offer an effective way of studying such connections in vivo. In this study, we employed such a structural covariance network (SCN)-based approach to investigate the integrity of anatomical networks in fronto-temporal brain regions of twenty children with ASD compared to an age and gender-matched control group of twenty-two children. Our findings reflected large-scale disruption of inter and intrahemispheric covariance in left frontal SCNs in the ASD group compared to controls, but no differences in right fronto-temporal SCNs. Interhemispheric covariance in left-seeded networks was further found to be modulated by verbal ability of the participants irrespective of autism diagnosis, suggesting that language function might be related to the strength of interhemispheric structural covariance between frontal regions. Additionally, regional cortical thickening was observed in right frontal and left posterior regions, which was predicted by decreasing symptom severity and increasing verbal ability in ASD. These findings unify reports of regional differences in cortical morphology in ASD. They also suggest that reduced left hemisphere asymmetry and increased frontal growth may not only reflect neurodevelopmental aberrations but also compensatory mechanisms. |
| **Source:** Medline |

| Title: Co-occurring autism and intellectual disability: A treatment for encopresis using a behavioral intervention plus laxative across settings. |
| Citation: Clinical Practice in Pediatric Psychology, Mar 2016, vol. 4, no. 1, p. 1-10, 2169-4826 (Mar 2016) |
| **Author(s):** Axelrod, Michael I., Tornehl, Mary, Fontanini-Axelrod, Angela |
| **Abstract:** The current study investigated the effects of a behavioral intervention plus laxative therapy for 2 adolescents with Autism Spectrum Disorder (ASD), Intellectual Disability (ID), and chronic histories of constipation and frequent fecal accidents. The treatment consisted of regularly scheduled toilet sits, an incentive system for bowel movements in the toilet, and a cleanup procedure for fecal accidents, plus a laxative. The behavioral intervention was implemented at home by each participant’s parents and at school by educational staff. A multiple baseline design across participants was used to evaluate the effects of the treatment on participants’ frequency of soiling, frequency of successful bowel movements in the toilet, and successful self-initiated bowel movement in the toilet. The treatment resulted in improvements in both participants’ fecal incontinence. Specifically, both participants achieved full fecal continence after 9 and 10 weeks respectively. Moreover, treatment gains were maintained following the withdrawal of the behavioral intervention and laxative. Results indicate that a behavioral intervention implemented across settings and laxative therapy can have a profound effect on the encopresis of adolescents with co-occurring ASD and ID. |
| **Source:** PsycInfo |

**Full text:** Available ProQuest at Clinical Practice in Pediatric Psychology

| Title: Appropriate outcome measurement for children with autism spectrum disorder. |
| Citation: Developmental medicine and child neurology, Mar 2016, vol. 58, no. 3, p. 220., 1469-8749 |
### Abstract:
This study aimed to explore the test-retest reliability of the Pediatric Evaluation of Disability Inventory-Computer Adaptive Test for autism spectrum disorders (PEDI-CAT [ASD]), the concurrent validity of this test with the Vineland Adaptive Behavior Scales (VABS-II), and parents' perceptions of usability. A convenience sample of participants (n=39) was recruited nationally through disability organizations. Parents of young people aged 10 to 18 years (mean age 14y 10mo, SD 2y 8mo; 34 males, five females) who reported a diagnosis of autism were eligible to participate. Parents completed the VABS-II questionnaire once and the PEDI-CAT (ASD) twice (n=29) no more than 3 weeks apart (mean 12d) using computer-simulated administration. Parents also answered questions about the usability of these instruments. We examined score reliability using intraclass correlation coefficients (ICCs) and we explored the relationship between instruments using Spearman's rank correlation coefficients. Parent responses were grouped by common content; content categories were triangulated by an additional reviewer.

Intraclass correlation coefficients indicate excellent reliability for all PEDI-CAT (ASD) domain scores (ICC≥0.86). PEDI-CAT (ASD) and VABS-II domain scores correlated as expected or stronger than expected (0.57-0.81). Parents reported that the computer-based PEDI-CAT (ASD) was easy to use and included fewer irrelevant questions than the VABS-II instrument.

These findings suggest that the PEDI-CAT (ASD) is a reliable assessment that parents can easily use. The PEDI-CAT (ASD) operationalizes the International Classification of Function, Disability and Health for Children and Youth constructs of 'activity' and 'participation', and this preliminary research suggests that the instrument's constructs are related to those of VABS-II.

### Source:
Medline

### Citation:
Developmental medicine and child neurology, Mar 2016, vol. 58, no. 3, p. 255-261, 1469-8749
Title: An update on the comorbidity of ADHD and ASD: a focus on clinical management.

Citation: Expert review of neurotherapeutics, Mar 2016, vol. 16, no. 3, p. 279-293, 1744-8360 (March 2016)

Author(s): Antshel, Kevin M, Zhang-James, Yanli, Wagner, Kayla E, Ledesma, Ana, Faraone, Stephen V

Abstract: Attention deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) commonly co-occur. With the DSM-5, clinicians are permitted to make an ASD diagnosis in the context of ADHD. In earlier versions of the DSM, this was not acceptable. Both ASD and ADHD are reported to have had substantial increases in prevalence within the past 10 years. As a function of both the increased prevalence of both disorders as well as the ability to make an ASD diagnosis in ADHD, there has been a significant amount of research focusing on the comorbidity between ADHD and ASD in the past few years. Here, we provide an update on the biological, cognitive and behavioral overlap/distinctiveness between the two neurodevelopmental disorders with a focus on data published in the last four years. Treatment strategies for the comorbid condition as well as future areas of research and clinical need are discussed.

Source: Medline

Title: Enhanced brain signal variability in children with autism spectrum disorder during early childhood.

Citation: Human brain mapping, Mar 2016, vol. 37, no. 3, p. 1038-1050, 1097-0193 (March 2016)

Author(s): Takahashi, Tetsuya, Yoshimura, Yuko, Hiraishi, Hirotoshi, Hasegawa, Chiaki, Munesue, Toshio, Higashida, Haruhiro, Minabe, Yoshio, Kikuchi, Mitsuru

Abstract: Extensive evidence shows that a core neurobiological mechanism of autism spectrum disorder (ASD) involves aberrant neural connectivity. Recent advances in the investigation of brain signal variability have yielded important information about neural network mechanisms. That information has been applied fruitfully to the assessment of aging and mental disorders. Multiscale entropy (MSE) analysis can characterize the complexity inherent in brain signal dynamics over multiple temporal scales in the dynamics of neural networks. For this investigation, we sought to characterize the magnetoencephalography (MEG) signal variability during free watching of videos without sound using MSE in 43 children with ASD and 72 typically developing controls (TD), emphasizing early childhood to older childhood: a critical period of neural network maturation. Results revealed an age-related increase of brain signal variability in a specific timescale in TD children, whereas atypical age-related alteration was observed in the ASD group. Additionally, enhanced brain signal variability was observed in children with ASD, and was confirmed particularly for younger children. In the ASD group, symptom severity was associated region-specifically and timescale-specifically with reduced brain signal variability. These results agree well with a recently reported theory of increased brain signal variability during development and aberrant neural connectivity in ASD, especially during early childhood. Results of this study suggest that MSE analytic method might serve as a useful approach for characterizing neurophysiological mechanisms of typical-developing and its alterations in ASD through the detection of MEG signal variability at multiple timescales..

Source: Medline

Title: Reorganization of functionally connected brain subnetworks in high-functioning autism.

Citation: Human Brain Mapping, Mar 2016, vol. 37, no. 3, p. 1066-1079, 1065-9471 (Mar 2016)

Author(s): Glerean, Enrico, Pan, Raj K., Salmi, Juha, Kujala, Rainer, Lahnakoski, Juha M., Roine, Ulrika, Nummenmaa, Lauri, Leppämäki, Sami, Nieminen-von Wendt, Taina, Tani, Pekka, Saramäki, Jari, Sams, Mikko, Jääskeläinen, Iiro P.

Abstract: Previous functional connectivity studies have found both hypo- and hyper-connectivity in brains of individuals having autism spectrum disorder (ASD). Here we studied abnormalities in functional brain subnetworks in high-functioning individuals with ASD during free viewing of a movie containing social cues and interactions. Twenty-six subjects (13 with ASD) watched a 68-min movie during functional magnetic resonance imaging. For each subject, we computed Pearson’s correlation between haemodynamic time-courses of each pair of 6-mm isotropic voxels. From the whole-brain functional networks, we derived individual and group-level subnetworks using graph theory. Scaled inclusivity was then calculated between all subject pairs to estimate intersubject similarity of connectivity structure of each subnetwork. Additional 54 individuals (27 with ASD) from the ABIDE resting-state database were included to test the reproducibility of the results. Between-group differences were observed in the composition of default-mode and ventro-temporal-limbic (VTL) subnetworks. The VTL subnetwork included amygdala, striatum, thalamus, parahippocampal, fusiform, and inferior temporal gyri. Further, VTL subnetwork similarity between subject
pairs correlated significantly with similarity of symptom gravity measured with autism quotient. This correlation was observed also within the controls, and in the reproducibility dataset with ADI-R and ADOS scores. Our results highlight how the reorganization of functional subnetworks in individuals with ASD clarifies the mixture of hypo- and hyper-connectivity findings. Importantly, only the functional organization of the VTL subnetwork emerges as a marker of inter-individual similarities that co-vary with behavioral measures across all participants. These findings suggest a pivotal role of ventro-temporal and limbic systems in autism.

Source: PsycInfo

Title: Online processing of sentences containing noun modification in young children with high-functioning autism.

Citation: International journal of language & communication disorders / Royal College of Speech & Language Therapists, Mar 2016, vol. 51, no. 2, p. 137-147, 1460-6984 (March 2016)


Abstract: There is variability in the language of children with autism, even those who are high functioning. However, little is known about how they process language structures in real time, including how they handle potential ambiguity, and whether they follow referential constraints. Previous research with older autism spectrum disorder (ASD) participants has shown that these individuals can use context to access rapidly the meaning of ambiguous words. The severity of autism has also been shown to influence the speed in which children with ASD access lexical information.

To understand more about how children with ASD process language in real time (i.e., as it unfolds). The focus was the integration of information and use of referential constraints to identify a referent named in a sentence.

We used an eye-tracking task to compare performance between young, high-functioning children with autism (HFA) and children with typical development (TD). A large sample of 5-9-year-old children (mean age = 6.8 years), 48 with HFA and 56 with TD participated; all were attending mainstream schools. For each item participants were shown a display of four images that differed in two dimensions. Each sentence contained an adjective and noun that restricted the choice from four to two (the target and competitor), followed by a prepositional phrase (e.g., the blue square with dots); this added modifying information to provide a unique desription of the target. We calculated looking time at the target, the competitor and the two distractors for each 200 ms time interval as children processed the sentence and looked at the display. Generalized estimating equations were used to carry out repeated-measures analyses on the proportion of looking time to target and competitor and time to fixate to target.

Children in both groups (HFA and TD) looked at the target and competitor more than at the distractors following the adjective and noun and following the modifying information in the prepositional phrase more at the target. However, the HFA group was significantly slower in both phases and looked proportionally less at the target. Across the sample, IQ and language did not affect the results; however, age and attention had an impact. The older children showed an advantage in processing the information as did the children with higher attention scores.

The HFA group took longer than the TD group to integrate the disambiguating information provided in the course of processing a sentence and integrate it with the visual information, indicating that for the ASD group incremental processing was not as advanced as for children with ASD, and they were less sensitive to referential conventions. Training for young children with ASD on the use of referential conventions and available contextual clues may be of benefit to them in understanding the language they hear.

Source: Medline

Title: Children with ASD can use gaze to map new words.

Citation: International journal of language & communication disorders / Royal College of Speech & Language Therapists, Mar 2016, vol. 51, no. 2, p. 212-218, 1460-6984 (March 2016)

Author(s): Bean Ellawadi, Allison, McGregor, Karla K

Abstract: The conclusion that children with autism spectrum disorders (ASD) do not use eye gaze in the service of word learning is based on one-trial studies. To determine whether children with ASD come to use gaze in the service of word learning when given multiple trials with highly reliable eye-gaze cues. Fifteen children with ASD with a mean age of 59 months (range = 36-92 months) and 15 typically developing (TD) peers with a mean age of 37 months (range = 16-92 months), and matched to the ASD group on receptive vocabulary raw scores, participated in four conditions formed by crossing-gaze load (high versus low) and attention load (high versus low). The high eye-gaze load condition required the
children to shift attention to the examiner and follow her gaze to fast map new words correctly. The low-
gaze load did not require shift and follow behaviours. The high-attention condition involved three (as
opposed to one) distracter objects.

As compared with the TD group, a lower proportion of the ASD group shifted and followed the examiner on
the initial trial of the high-gaze load condition, but there was not a significant difference between groups
when shift and follow behaviours were averaged over subsequent trials, nor was there a difference between
groups in fast-mapping performance. Fast-mapping outcomes were correlated with gaze shift and follow
behaviours in the high-gaze load condition.

The finding that the children with ASD altered their looking behaviour over the course of the experiment
suggests that children with ASD were sensitive to statistical regularities present in the examiner’s gaze cues
and used this information to alter their looking behaviour over the course of the experiment.

Source: Medline

Title: Sibling Comparisons and Confounding in Autism Epidemiological Studies.
Citation: JAMA psychiatry, Mar 2016, vol. 73, no. 3, p. 302-303, 2168-6238 (March 1, 2016)
Author(s): Schendel, Diana E, Parner, Erik
Source: Medline

Title: Sibling Comparisons and Confounding in Autism Epidemiological Studies-Reply.
Citation: JAMA psychiatry, Mar 2016, vol. 73, no. 3, p. 303., 2168-6238 (March 1, 2016)
Author(s): Curran, Eileen A, Kenny, Louise C, Khashan, Ali S
Source: Medline

Title: Dark clouds or silver linings? A stigma threat perspective on the implications of an autism diagnosis
for workplace well-being.
Citation: Journal of Applied Psychology, Mar 2016, vol. 101, no. 3, p. 430-449, 0021-9010 (Mar 2016)
Author(s): Johnson, Tiffany D., Joshi, Aparna
Abstract: This article unpacks the stigma associated with a developmental disability at work, specifically
autism spectrum disorders (ASD), by presenting findings from 2 studies—one interview-based and the other
survey-based. Drawing on in-depth interviews with individuals on the autism spectrum, the first study
showed that a clinical diagnosis of autism is a milestone event that triggered both positive (silver linings)
and negative (dark clouds) responses to work. These positive and negative responses were shaped by the
age at which the diagnosis occurred as well as specific work-related contingencies—identity management
(disclosing or not disclosing), the importance of the social demands imposed by the job, and organizational
support polices for autism. The second study developed and tested propositions derived from the qualitative
data by using survey data gathered from working adults with ASD. Results showed that, compared with
individuals diagnosed later in life, individuals who were diagnosed at an earlier age experienced greater
organization-based self-esteem and lower perceived discrimination when they disclosed their disability,
worked in jobs that placed lower social demands on them, or were employed in organizations that offered
policies to support workers with ASD. We conclude that, depending on the age of diagnosis, attributes of the
employment context can trigger stigma-related threat in different ways and we outline important practical
implications of these findings.
Source: PsycInfo
Full text: Available ProQuest at Journal of Applied Psychology

Title: Early predictors of growth in diversity of key consonants used in communication in initially preverbal
children with autism spectrum disorder.
Citation: Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1013-1024,
Author(s): Woynaroski, Tiffany, Watson, Linda, Gardner, Elizabeth, Newsom, Cassandra R., Keceli-Kaysili,
Bahar, Yoder, Paul J.
Abstract: Diversity of key consonants used in communication (DKCC) is a value-added predictor of
expressive language growth in initially preverbal children with autism spectrum disorder (ASD). Studying the
predictors of DKCC growth in young children with ASD might inform treatment of this under-studied aspect
of prelinguistic development. Eighty-seven initially preverbal preschoolers with ASD and their parents were
observed at five measurement periods. In this longitudinal correlational investigation, we found that child
intentional communication acts and parent linguistic responses to child leads predicted DKCC growth, after
controlling for two other predictors and two background variables. As predicted, receptive vocabulary
mediated the association between the value-added predictors and endpoint DKCC.

**Source:** PsycInfo

<table>
<thead>
<tr>
<th>Title</th>
<th>Readers with autism can produce inferences, but they cannot answer inferential questions.</th>
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<tbody>
<tr>
<td><strong>Citation:</strong></td>
<td><em>Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1025-1037</em></td>
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<tr>
<td><strong>Author(s):</strong></td>
<td>Tirado, Maria J., Saldaña, David</td>
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<tr>
<td><strong>Abstract:</strong></td>
<td>Readers with autism (ASD), poor comprehension (PC), and typical development (TD) took part in three reading experiments requiring the production of inferences. In Experiments 1 and 2 reading times for target phrases—placed immediately after text implicitly indicating the emotion of a protagonist or after a number of filler sentences, respectively—were used as measures of inferencing. In Experiment 3, participants were explicitly asked to identify the protagonist’s emotion. There were no significant differences among groups in Experiment 1. Compared to TD readers, the PC group performed poorly in Experiments 2 and 3. ASD readers performed worse than PC participants only in the explicit-question task. Although ASD readers can produce inferences, they respond to questions about them with difficulty.</td>
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<td><strong>Source:</strong></td>
<td>PsycInfo</td>
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<th>Title</th>
<th>Body constraints on motor simulation in autism spectrum disorders.</th>
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<tr>
<td><strong>Citation:</strong></td>
<td><em>Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1051-1060,</em></td>
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<tr>
<td><strong>Author(s):</strong></td>
<td>Conson, Massimiliano, Hamilton, Antonia, De Bellis, Francesco, Errico, Domenico, Improta, Ilaria, Mazzarella, Elisabetta, Trojano, Luigi, Froli, Alessandro</td>
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<tr>
<td><strong>Abstract:</strong></td>
<td>Developmental data suggested that mental simulation skills become progressively dissociated from overt motor activity across development. Thus, efficient simulation is rather independent from current sensorimotor information. Here, we tested the impact of bodily (sensorimotor) information on simulation skills of adolescents with Autism Spectrum Disorders (ASD). Typically-developing (TD) and ASD participants judged laterality of hand images while keeping one arm flexed on chest or while holding both arms extended. Both groups were able to mentally simulate actions, but this ability was constrained by body posture more in ASD than in TD adolescents. The strong impact of actual body information on motor simulation implies that simulative skills are not fully effective in ASD individuals.</td>
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<td><strong>Source:</strong></td>
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<th>Title</th>
<th>Uh, um, and autism: Filler disfluencies as pragmatic markers in adolescents with optimal outcomes from autism spectrum disorder.</th>
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<tr>
<td><strong>Citation:</strong></td>
<td><em>Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1061-1070,</em></td>
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<td><strong>Author(s):</strong></td>
<td>Irvine, Christina A., Eigsti, Inge-Marie, Fein, Deborah A.</td>
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<tr>
<td><strong>Abstract:</strong></td>
<td>Filler disfluencies—uh and um—are thought to serve distinct discourse functions. We examined fillers in spontaneous speech by youth with autism spectrum disorder (ASD), who struggle with pragmatic language, and by youth with ASD who have achieved an ‘optimal outcome’ (OO), as well as in peers with typical development (TD). While uh rates did not differ, participants with ASD produced um less frequently than OO or TD groups. Um rate was associated with autism symptom severity, but not executive function or language abilities, suggesting that um serves a pragmatic, listener-oriented function. Moreover, in contrast to minimal production in ASD, the typical OO um production substantiates the normalization of subtle social communication in this population.</td>
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<td><strong>Source:</strong></td>
<td>PsycInfo</td>
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<th>Title</th>
<th>Real-world executive functions in adults with autism spectrum disorder: Profiles of impairment and associations with adaptive functioning and co-morbid anxiety and depression.</th>
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<td><strong>Citation:</strong></td>
<td><em>Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1071-1083,</em></td>
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<tr>
<td><strong>Author(s):</strong></td>
<td>Wallace, Gregory L., Kenworthy, Lauren, Pugliese, Cara E., Popal, Haroon S., White, Emily I., Brodsky, Emily, Martin, Alex</td>
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</tbody>
</table>
| **Abstract:** | Although executive functioning (EF) difficulties are well documented among children and adolescents with autism spectrum disorder (ASD), little is known about real-world measures of EF among adults with ASD. Therefore, this study examined parent-reported real-world EF problems among 35 adults with ASD without intellectual disability and their correlations with adaptive functioning and co-morbid anxiety and depression symptomatology. A variable EF profile was found with prominent deficits occurring in flexibility and metacognition. Flexibility problems were associated with anxiety-related symptoms while metacognition difficulties were associated with depression symptoms and impaired adaptive functioning (though the metacognition-adaptive functioning relationship was moderated by ADHD symptoms). These
persistent EF problems are predictors of broader functioning and therefore remain an important treatment target among adults with ASD.

**Source:** PsycInfo

**Title:** Trajectories, long-term outcomes and family experiences of 76 adults with autism spectrum disorder.

**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1084-1095,

**Author(s):** Chamak, Brigitte, Bonniau, Béatrice

**Abstract:** The aim of this retrospective study was to retrace the trajectories and long-term outcomes of individuals with autism in France, and to explore the family experiences. Data obtained from parents enables us to follow the trajectories of 76 adults. Two-thirds of adults with severe autism had a very poor outcome. Those with moderate autism had a better outcome. In adulthood, the majority were in residential accommodation. None were living independently. The trajectories of people with Asperger syndrome or high-functioning autism were more positive since all of them attended school for a long time and some went to university. All of them had a good outcome but they remained dependent on aging parents who had few available supports.

**Source:** PsycInfo

**Title:** Brief report: Burden of care in mothers of children with autism spectrum disorder or intellectual disability.

**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1103-1109,

**Author(s):** Fairthorne, Jenny, de Klerk, Nick, Leonard, Helen

**Abstract:** Compared to other mothers, mothers of children with autism spectrum disorder (ASD) or intellectual disability (ID) have higher rates of treatment episodes for psychiatric disorders. We aimed to estimate the maternal burden of care by comparing the length of hospitalisations for psychiatric disorders and the treatment rates for psychiatric disorders after the birth in mothers of children with ASD/ID and no psychiatric history to that of other mothers with no psychiatric history. Mothers of children with ID of known cause (not Down syndrome) and mothers of children ASD without ID emerged as particularly vulnerable. Mothers of children with Down syndrome were resilient. The development of specialised organisations to provide support to mothers of children with ID of known cause (not Down syndrome) and mothers of children with ASD without ID could assist them to maintain their mental health.

**Source:** PsycInfo

**Title:** Brief report: Non-right-handedness within the autism spectrum disorder.

**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1110-1117,

**Author(s):** Rysstad, Anne Langseth, Pedersen, Arve Vorland

**Abstract:** A larger distribution of left-handedness in the population of Autism Spectrum Disorder has been repeatedly reported. Despite of this, the sample sizes in the individual study's are too small for any generalization to be made. Using both description-based and citation-based searches, the present review combines the individual results in order to examine whether non-right-handedness is a general trait of the autism spectrum disorder. With a relatively large combined sample size (N = 497), it can be concluded that the distribution of non-right-handedness is significantly greater within the autism spectrum disorder population, compared with the population in general.

**Source:** PsycInfo

**Title:** Brief report: Whole blood serotonin levels and gastrointestinal symptoms in autism spectrum disorder.

**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1124-1130,


**Abstract:** Elevated whole blood serotonin levels are observed in more than 25% of children with autism spectrum disorder (ASD). Co-occurring gastrointestinal (GI) symptoms are also common in ASD but have not previously been examined in relationship with hyperserotonemia, despite the synthesis of serotonin in the gut. In 82 children and adolescents with ASD, we observed a correlation between a quantitative measure of lower GI symptoms and whole blood serotonin levels. No significant association was seen between functional constipation diagnosis and serotonin levels in the hyperserotonemia range, suggesting that this correlation is not driven by a single subgroup. More specific assessment of gut function, including the microbiome, will be necessary to evaluate the contribution of gut physiology to serotonin levels in ASD.
Title: Autism developmental profiles and cooperation with oral health screening: Erratum.

Citation: Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 1131.

Author(s): Du, Rennan Y., Yiu, Cynthia K. Y., Wong, Virginia C. N., McGrath, Colman P.

Abstract: Reports an error in "Autism developmental profiles and cooperation with oral health screening" by Rennan Y. Du, Cynthia C. Y. Yiu, Virginia C. N. Wong and Colman P. McGrath (Journal of Autism and Developmental Disorders, 2015[Sep], Vol 45[9], 2758-2763). In the original version of the article, the middle name of one of the coauthors is published incorrectly. The author name should be Cynthia K. Y. Yiu. Also, a reference citation and the reference are missing in the caption of Table 1. The corrections are present in the erratum. (The following abstract of the original article appeared in record 2015-20926-001). To determine the associations between autism developmental profiles and cooperation with an oral health screening among preschool children with autism spectrum disorders (ASDs). A random sample of Special Child Care Centres registered with the Government Social Welfare Department in Hong Kong was selected (19 out of 37 Centres). All preschool children with ASDs were invited to participate in the oral health survey and 347 children agreed to participate (among 515 invited). A checklist of autism developmental profiles: (1) level of cognitive functioning, (2) social skills development, (3) communication skills development, (4) reading skills and (5) challenging behaviours was ascertained. Feasibility of conducting oral health screening in preschool children with ASDs was associated with their cognitive functioning (p = 0.001), social skills development (p = 0.002), communication skills development (p < 0.001), reading skills (p < 0.001) and challenging behaviours (p = 0.06). In regression analyses accounting for age (in months) and gender, inability to cooperate with an oral health screening was associated with high level of challenging behaviours (OR 10.50, 95 % CI 2.89–38.08, p < 0.001) and reduced cognitive functioning (OR 5.29, 95 % CI 1.14–24.61, p = 0.034). Age (in months) was positively associated with likelihood of cooperative behaviour with an oral health screening (OR 1.06, 95 % CI 1.03, 1.08, p < 0.001). Feasibility of conducting population-wide oral health screening among preschool children with ASDs is associated with their developmental profiles; and in particular levels of cognitive functioning, and challenging behaviours.

Source: PsycInfo

Title: An analysis of state autism educational assessment practices and requirements.

Citation: Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 737-748.

Author(s): Barton, Erin E., Harris, Bryn, Leech, Nancy, Stiff, Lillian, Choi, Gounah, Joel, Tiffany

Abstract: States differ in the procedures and criteria used to identify ASD. These differences are likely to impact the prevalence and age of identification for children with ASD. The purpose of the current study was to examine the specific state variations in ASD identification and eligibility criteria requirements. We examined variations by state in autism assessment practices and the proportion of children eligible for special education services under the autism category. Overall, our findings suggest that ASD identification practices vary across states, but most states use federal guidelines, at least in part, to set their requirements. Implications and recommendations for policy and practice are discussed.

Source: PsycInfo


Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 749-759.

Author(s): Jure, Rubin, Pogonza, Ramón, Rapin, Isabelle

Abstract: Autism spectrum disorders affected 19 of 38 unselected children at a school for the blind in Cordoba, Argentina. Autism was linked to total congenital blindness, not blindness’ etiology, acquired or incomplete blindness, sex, overt brain damage, or socioeconomic status. Autism “recovery,” had occurred in 4 verbal children. Congenital blindness causes profoundly deviant sensory experience and massive reorganization of brain connectivity. Its ≥30 times greater prevalence than in sighted children suggests a distinct pathogenesis. Unawareness of autism’s high prevalence in blind individuals includes blindness’ rarity, misunderstanding of autism as “disease” rather than dimensional behavioral diagnosis, reluctance to diagnose it in blind children, and ignorance of its potentially more favorable outcome. Future investigation may suggest interventions to prevent or mitigate it.

Source: Medline

Title: Long-Term Outcomes in Children Diagnosed with Autism Spectrum Disorders in India.

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 760-772.
Author(s): Mhatre, Dimpi, Bapat, Deepa, Udani, Vrajesh

Abstract: We investigated long-term outcomes in children with diagnosis of autism spectrum disorders based on Childhood Autism Rating Scale (CARS score). Information about outcomes such as speech, friendships and activities of daily living (ADLs) was collected through telephone-based interviews. Gilliam Autism Rating Scale-2 and Vineland Social Maturity Scale were used to assess level of functioning at follow-up. Parents of 80 [67 males, mean age 12 (3) years] children participated in the interview, 23 attended follow-up assessment. Sixty-four (80 %) were verbal, 34 (42.5 %) had need-based speech, 20 (25 %) had friends and 37 (46 %) had achieved age-appropriate ADLs. Median total follow-up period was 10 years. Lower disease severity, parent participation and higher maternal education were associated with better outcomes.

Source: Medline

Title: Are Non-intellectually Disabled Black Youth with ASD Less Impaired on Parent Report than Their White Peers?

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 773-781,

Author(s): Ratto, Allison B, Anthony, Bruno J, Kenworthy, Lauren, Armour, Anna Chelsea, Dudley, Katerina, Anthony, Laura Gutermuth

Abstract: There is a lack of research examining differences in functioning in autism spectrum disorder (ASD) across ethnicity, particularly among those without intellectual disability (ID). This study investigated ethnic differences in parent-reported impairment in executive function, adaptive behavior, and social-emotional functioning. White and Black youth (n = 64; ages 6-17) with ASD without ID were compared on each of these domains. Black youth had significantly lower levels of impairment on all three domains. Findings may reflect better daily functioning among Black youth with ASD and/or cultural differences in parent response to questionnaires. Regardless, these findings raise concern about the sensitivity of commonly used measures for Black children with ASD and the impact of culture on daily functioning and symptom manifestation.

Source: Medline

Title: Evaluation of Classroom Active Engagement in Elementary Students with Autism Spectrum Disorder.

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 782-796,

Author(s): Sparapani, Nicole, Morgan, Lindee, Reinhardt, Vanessa P, Schatschneider, Christopher, Wetherby, Amy M

Abstract: This study evaluated the classroom measure of active engagement (CMAE), an observational tool designed to measure active engagement in students with autism spectrum disorder (ASD). Participants included 196 students with ASD and their educators (n = 126) who were video-recorded at the beginning of the school year. Findings documented limited active engagement overall, with students spending less than half of the observation well-regulated, productive, or independent and infrequently directing eye gaze and communicating. Confirmatory factor analysis indicated that the structure of the CMAE was represented by a 5-factor model. These findings underscore the need for improved active engagement in students with ASD and show promise for a tool to measure behaviors associated with positive educational outcomes in students with ASD.

Source: Medline

Title: The Generality of Interview-Informed Functional Analyses: Systematic Replications in School and Home.

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 797-811,

Author(s): Santiago, Joana L, Hanley, Gregory P, Moore, Keira, Jin, C Sandy

Abstract: Behavioral interventions preceded by a functional analysis have been proven efficacious in treating severe problem behavior associated with autism. There is, however, a lack of research showing socially validated outcomes when assessment and treatment procedures are conducted by ecologically relevant individuals in typical settings. In this study, interview-informed functional analyses and skill-based treatments (Hanley et al. in J Appl Behav Anal 47:16-36, 2014) were applied by a teacher and home-based provider in the classroom and home of two children with autism. The function-based treatments resulted in socially validated reductions in severe problem behavior (self-injury, aggression, property destruction). Furthermore, skills lacking in baseline-functional communication, denial and delay tolerance, and compliance with adult instructions-occurred with regularity following intervention. The generality and costs of the process are discussed.
**Source:** Medline  
**Title:** Respite Care for Single Mothers of Children with Autism Spectrum Disorders.  
**Citation:** Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 812-824,  
**Author(s):** Dyches, Tina Taylor, Christensen, Ruthann, Harper, James M, Mandleco, Barbara, Roper, Susanne Olsen  
**Abstract:** Single mothers of children with autism spectrum disorders are rarely studied, yet they may experience unique stressors. Researchers asked 122 single mothers to complete questionnaires concerning respite care, daily hassles/uplifts, depression, and caregiver burden. More than half (59.8 %) accessed respite care, which was provided for 1 h per day, often by multiple sources (41 %), such as grandparents and community agencies; most were satisfied with this care. Most mothers (77 %) were at risk for clinical depression. While uplifts were negatively correlated with depression, hassles and caregiver burden were positively correlated with depression. Respite care was positively related to daily uplifts, and uplifts mediated the relationship between respite care and depression. Recommendations for researchers, policymakers, and school personnel are offered.  
**Source:** Medline

| Title: Pharmacological modulation of GABA function in autism spectrum disorders: A systematic review of human studies.  
**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 825-839,  
**Author(s):** Brondino, Natascia, Fusar-Poli, Laura, Panisi, Cristina, Damiani, Stefano, Barale, Francesco, Politi, Pierluigi  
**Abstract:** Autism spectrum disorders are an emerging health problem worldwide, but little is known about their pathogenesis. It has been hypothesized that autism may result from an imbalance between excitatory glutamatergic and inhibitory GABAergic pathways. Commonly used medications such as valproate, acamprosate, and arbaclofen may act on the GABAergic system and be a potential treatment for people with ASD. The present systematic review aimed at evaluating the state-of-the-art of clinical trials of GABA modulators in autism. To date there is insufficient evidence to suggest the use of these drugs in autistic subjects, even if data are promising. Of note, short-term use of all the reviewed medications appears to be safe. Future well designed trials are needed to elucidate these preliminary findings.  
**Source:** PsycInfo

| Title: Narratives of girls and boys with autism spectrum disorders: Gender differences in narrative competence and internal state language.  
**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 840-852,  
**Author(s):** Kauschke, Christina, van der Beek, Bettina, Kamp-Becker, Inge  
**Abstract:** Since gender differences in the symptomatology of autism spectrum disorder (ASD) are not well understood, the current study examines the communicative skills of males and females with ASD. Narrative competence and internal state language (ISL) was investigated using narrations elicited by a wordless picture book. 11 girls and 11 boys with ASD and 11 typically developing girls were individually matched. Although results demonstrate largely comparable narrative skills across groups, the groups differed with respect to the size and use of ISL: Girls with ASD verbalized and motivated internal states more often than boys, and both groups with ASD fell behind typically developing children in production of affective words. Implications for the clinical presentation of males and females with ASD are discussed.  
**Source:** PsycInfo

| Title: Postural control deficits in autism spectrum disorder: The role of sensory integration.  
**Citation:** Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 853-861,  
**Author(s):** Doumas, Michail, McKenna, Roisin, Murphy, Blain  
**Abstract:** We investigated the nature of sensory integration deficits in postural control of young adults with ASD. Postural control was assessed in a fixed environment, and in three environments in which sensory information about body sway from visual, proprioceptive or both channels was inaccurate. Furthermore, two levels of inaccurate information were used within each channel (gain 1 and 1.6). ASD participants showed greater postural sway when information from both channels was inaccurate. In addition, control participants’ ellipse area at gain 1.6 was identical to ASD participants’ at gain 1, reflecting hyper-reactivity in ASD. Our results provide evidence for hyper-reactivity in posture-related sensory information, which reflects a general, rather than channel-specific sensory integration impairment in ASD.  
**Source:** PsycInfo
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<td>Is social categorization the missing link between weak central coherence and mental state inference abilities in autism? Preliminary evidence from a general population sample.</td>
<td>PsycInfo</td>
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<td>Citation: Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 862-881, 0162-3257</td>
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<td>Author(s): Skorich, Daniel P., May, Adrienne R., Talipski, Louisa A., Hall, Marnie H., Dolstra, Anita J., Gash, Tahlia B., Gunningham, Beth H.</td>
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<td>Abstract: We explore the relationship between the ‘theory of mind’ (ToM) and ‘central coherence’ difficulties of autism. We introduce covariation between hierarchically-embedded categories and social information—at the local level, the global level, or at both levels simultaneously—within a category confusion task. We then ask participants to infer the mental state of novel category members, and measure participants’ autism-spectrum quotient (AQ). Results reveal a positive relationship between AQ and the degree of local/global social categorization, which in turn predicts the pattern of mental state inferences. These results provide preliminary evidence for a causal relationship between central coherence and ToM abilities. Implications with regard to ToM processes, social categorization, intervention, and the development of a unified account of autism are discussed.</td>
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<td>Source: PsycInfo</td>
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<td>Abstract: Higher-functioning participants with and without autism spectrum disorder (ASD) viewed a series of face stimuli, made decisions regarding the affect of each face, and indicated their confidence in each decision. Confidence significantly predicted accuracy across all participants, but this relation was stronger for participants with typical development than participants with ASD. In the hierarchical linear modeling analysis, there were no differences in face processing accuracy between participants with and without ASD, but participants with ASD were more confident in their decisions. These results suggest that individuals with ASD have metacognitive impairments and are overconfident in face processing. Additionally, greater metacognitive awareness was predictive of better face processing accuracy, suggesting that metacognition may be a pivotal skill to teach in interventions.</td>
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<td>Source: Medline</td>
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<td>Abstract: Little is known about early language development in infants who later develop autism spectrum disorder (ASD). We analyzed prospective data from 346 infants, some of whom were at high risk for developing ASD, to determine if language differences could be detected at 12 months of age in the infants who later were diagnosed with ASD. Analyses revealed lower receptive and expressive language scores in infants who later were diagnosed with ASD. Controlling for overall ability to understand and produce single words, a Rasch analysis indicated that infants who later developed ASD had a higher degree of statistically unexpected word understanding and production. At 12 months of age, quantitative and qualitative language patterns distinguished infants who later developed ASD from those who did not.</td>
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<td>Abstract: Using data from multiple health systems (2009–2010) and the largest sample to date, this study compares health services use among youth with and without an autism spectrum disorder (ASD)—including preventive services not previously studied. To examine these differences, we estimated logistic and count data models, controlling for demographic characteristics, comorbid physical health, and mental health</td>
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conditions. Results indicated that youth with an ASD had greater health care use in many categories, but were less likely to receive important preventive services including flu shots and other vaccinations. An improved understanding of the overall patterns of health care use among this population could enable health systems to facilitate the receipt of appropriate and effective health care.

Source: PsycINFO

| Title: Improving Empathic Communication Skills in Adults with Autism Spectrum Disorder. |
| Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 921-933, 1573-3432 |
| Author(s): Kern Koegel, Lynn, Ashbaugh, Kristen, Navab, Anahita, Koegel, Robert L |
| Abstract: The literature suggests that many individuals diagnosed with Autism Spectrum Disorder (ASD) experience challenges with recognizing and describing emotions in others, which may result in difficulties with the verbal expression of empathy during communication. Thus, there is a need for intervention techniques targeting this area. Using a multiple baseline across participants design, this study examined the effectiveness of a video-feedback intervention with a visual framework component to improve verbal empathetic statements and questions during conversation for adults with ASD. Following intervention, all participants improved in verbal expression of empathetic statements and empathetic questions during conversation with generalization and maintenance of gains. Furthermore, supplemental assessments indicated that each participant improved in their general level of empathy and confidence in communication skills. |
| Source: Medline |

| Title: Relationship between self-reported health and stress in mothers of children with autism spectrum disorders. |
| Citation: Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 934-941, 0162-3257 |
| Author(s): Reed, Phil, Sejunaite, Karolina, Osborne, Lisa A. |
| Abstract: The current study explore the relationship between various forms of experienced stress (general stress and parenting stress) and both health-related quality of life (QoL) and reported physical health symptoms. One hundred and twenty-two mothers of children with autism spectrum disorder responded to an online survey included questionnaires on general stress, parenting stress, health-related QoL, and physical symptoms. The results suggested that perceived general stress as associated with both a reduced health-related QoL and more physical symptoms. However, parenting stress was only associated with a reduced health-related QoL, and not with physical health. These results are discussed in relation to the complex impact of prolonged and predictable parenting stress on the cortisol response and immune system. |
| Source: PsycINFO |

| Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 942-953, 1573-3432 |
| Author(s): Kinnear, Sydney H, Link, Bruce G, Ballan, Michelle S, Fischbach, Ruth L |
| Abstract: Stigma is widely perceived in the lives of families with autism spectrum disorder (ASD) yet large, systematic studies have not been undertaken. Following Link and Phelan's (Ann Rev Sociol 27:363-385, 2001) model, this study of 502 Simons Simplex Collection families details how different factors contribute to stigma and how each appears to increase the overall difficulty of raising a child with ASD. The model begins with the child's behavioral symptoms and then specifies stigma processes of stereotyping, rejection, and exclusion. Autism behaviors contribute both to the difficulty families experience raising a child with autism and to the stigma processes associated with those behaviors. Stigma also plays a significant role (.282, p < .001) in predicting how difficult life is overall for parents. |
| Source: Medline |

| Title: Atypical Neural Activity in Males But Not Females with Autism Spectrum Disorder. |
| Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 954-963, 1573-3432 |
| Author(s): Kirkovski, Melissa, Enticott, Peter G, Hughes, Matthew E, Rossell, Susan L, Fitzgerald, Paul B |
| Abstract: The medial prefrontal cortex (mPFC) and the right temporo-parietal junction (rTPj) are highly involved in social understanding, a core area of impairment in autism spectrum disorder (ASD). We used fMRI to investigate sex differences in the neural correlates of social understanding in 27 high-functioning adults with ASD and 23 matched controls. There were no differences in neural activity in the mPFC or rTPj between groups during social processing. Whole brain analysis revealed decreased activity in the posterior
superior temporal sulcus in males with ASD compared to control males while processing social information. This pattern was not observed in the female sub-sample. The current study indicates that sex mediates the neurobiology of ASD, particularly with respect to processing social information.

Source: Medline

Title: Using the Autism-Spectrum Quotient to measure autistic traits in Anorexia Nervosa: A systematic review and meta-analysis.

Citation: Journal of Autism and Developmental Disorders, Mar 2016, vol. 46, no. 3, p. 964-977, 0162-3257

Author(s): Westwood, Heather, Eisler, Ivan, Mandy, William, Leppanen, Jenni, Treasure, Janet, Tchanturia, Kate

Abstract: Interest in the link between Autism Spectrum Disorder (ASD) and Anorexia Nervosa (AN) has led to estimates of the prevalence of autistic traits in AN. This systematic review and meta-analysis assessed the use of the Autism-Spectrum Quotient (AQ) or abbreviated version (AQ-10) to examine whether patients with AN have elevated levels of autistic traits. Seven studies were identified and subsequent meta-analysis indicated that those with AN appear to have significant difficulties of a manner characteristic of ASD, relative to controls. Whilst this analysis supports previous indications of higher prevalence of ASD in AN, the aetiology of these traits remains unclear. Studies using more robust clinical measures of ASD within AN are needed to confirm what self-report measures appear to show.

Source: PsycInfo

Title: The Effect of Karate Techniques Training on Communication Deficit of Children with Autism Spectrum Disorders.

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 978-986, 1573-3432

Author(s): Bahrami, Fatimah, Movahedi, Ahmadreza, Marandi, Sayed Mohammad, Sorensen, Carl

Abstract: This investigation examined the long term effect of Karate techniques training on communication of children with autism spectrum disorders (ASD). Thirty school aged children with ASD were randomly assigned to an exercise (n = 15) or a control group (n = 15). Participants in the exercise group were engaged in 14 weeks of Karate techniques training. Communication deficit at baseline, post-intervention (week 14), and at 1 month follow up were evaluated. Exercise group showed significant reduction in communication deficit compared to control group. Moreover, reduction in communication deficit in the exercise group at one month follow up remained unchanged compared to post-intervention time. We concluded that teaching Karate techniques to children with ASD leads to significant reduction in their communication deficit.

Source: Medline

Title: Participation in Daily Activities of Young Adults with High Functioning Autism Spectrum Disorder.

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 987-997, 1573-3432

Author(s): McCollum, Mary, LaVesser, Patti, Berg, Christine

Abstract: Young adults with an autism spectrum disorder (ASD) struggle to assume adult roles. This research assessed the feasibility of using the Adolescent and Young Adult Activity Card Sort (AYA-ACS) with emerging adults with high functioning ASD. Two phases were utilized during this research: (1) comparing the activity participation reported by emerging adults with an ASD and that reported by their caring adult; (2) examining the barriers to participation reported. Preliminary results demonstrate that the AYA-ACS appears to be a reliable and valid method of identifying emerging adults' participation strengths as well as personal and environmental challenges in a variety of age-appropriate activities. The AYA-ACS could assist service providers by providing an understanding of the challenges to participation faced by this population and aid in developing client centered interventions.

Source: Medline

Title: Altered Gesture and Speech Production in ASD Detract from In-Person Communicative Quality.

Citation: Journal of autism and developmental disorders, Mar 2016, vol. 46, no. 3, p. 998-1012, 1573-3432

Author(s): Morett, Laura M, O'Hearn, Kirsten, Luna, Beatriz, Ghuman, Avniel Singh

Abstract: This study disentangled the influences of language and social processing on communication in autism spectrum disorder (ASD) by examining whether gesture and speech production differs as a function of social context. The results indicate that, unlike other adolescents, adolescents with ASD did not increase their coherency and engagement in the presence of a visible listener, and that greater coherency and engagement were related to lesser social and communicative impairments. Additionally, the results
indicated that adolescents with ASD produced sparser speech and fewer gestures conveying supplementary information, and that both of these effects increased in the presence of a visible listener. Together, these findings suggest that interpersonal communication deficits in ASD are driven more strongly by social processing than language processing.

**Source:** Medline

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<th>Title: Annual Research Review: Discovery science strategies in studies of the pathophysiology of child and adolescent psychiatric disorders - promises and limitations.</th>
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<td><strong>Citation:</strong> Journal of child psychology and psychiatry, and allied disciplines, Mar 2016, vol. 57, no. 3, p. 421-439, 1469-7610 (March 2016)</td>
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<td><strong>Author(s):</strong> Zhao, Yihong, Castellanos, F Xavier</td>
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<td><strong>Abstract:</strong> Psychiatric science remains descriptive, with a categorical nosology intended to enhance interobserver reliability. Increased awareness of the mismatch between categorical classifications and the complexity of biological systems drives the search for novel frameworks including discovery science in Big Data. In this review, we provide an overview of incipient approaches, primarily focused on classically categorical diagnoses such as schizophrenia (SZ), autism spectrum disorder (ASD), and attention-deficit/hyperactivity disorder (ADHD), but also reference convincing, if focal, advances in cancer biology, to describe the challenges of Big Data and discovery science, and outline approaches being formulated to overcome existing obstacles. A paradigm shift from categorical diagnoses to a domain/structure-based nosology and from linear causal chains to complex causal network models of brain-behavior relationship is ongoing. This (r)evolution involves appreciating the complexity, dimensionality, and heterogeneity of neuropsychiatric data collected from multiple sources ('broad' data) along with data obtained at multiple levels of analysis, ranging from genes to molecules, cells, circuits, and behaviors ('deep' data). Both of these types of Big Data landscapes require the use and development of robust and powerful informatics and statistical approaches. Thus, we describe Big Data analysis pipelines and the promise and potential limitations in using Big Data approaches to study psychiatric disorders. We highlight key resources available for psychopathological studies and call for the application and development of Big Data approaches to dissect the causes and mechanisms of neuropsychiatric disorders and identify corresponding biomarkers for early diagnosis.</td>
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<th>Title: Annual research review: The role of the environment in the developmental psychopathology of autism spectrum condition.</th>
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<td><strong>Citation:</strong> Journal of Child Psychology and Psychiatry, Mar 2016, vol. 57, no. 3, p. 271-292, 0021-9630</td>
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<td><strong>Author(s):</strong> Mandy, William, Lai, Meng-Chuan</td>
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<tr>
<td><strong>Abstract:</strong> Background: Although autism spectrum condition (ASC) is strongly genetic in origin, accumulating evidence points to the critical roles of various environmental influences on its emergence and subsequent developmental course. Methods: A developmental psychopathology framework was used to synthesise literature on environmental factors associated with the onset and course of ASC (based on a systematic search of the literature using PubMed, PsycInfo and Google Scholar databases). Particular emphasis was placed on gene–environment interplay, including gene–environment interaction (G × E) and gene–environment correlation (rGE). Results: Before conception, advanced paternal and maternal ages may independently enhance offspring risk for ASC. Exogenous prenatal risks are evident (e.g. valproate and toxic chemicals) or possible (e.g. selective serotonin reuptake inhibitors), and processes endogenous to the materno-foeto-placental unit (e.g. maternal diabetes, enhanced steroidogenic activities and maternal immune activation) likely heighten offspring vulnerability to ASC. Folate intake is a prenatal protective factor, with a particular window of action around 4 weeks preconception and during the first trimester. These prenatal risks and protective mechanisms appear to involve G × E and potentially rGE. A variety of perinatal risks are related to offspring ASC risk, possibly reflecting rGE. Postnatal social factors (e.g. caregiver–infant interaction, severe early deprivation) during the first years of life may operate through rGE to influence the likelihood of manifesting a full ASC phenotype from a 'prodromal' phase (a proposal distinct to the discredited and harmful 'refrigerator mother hypothesis'); and later postnatal risks, after the full manifestation of ASC, shape life span development through transactions mediated by rGE. There is no evidence that vaccination is a postnatal risk for ASC. Conclusions: Future investigations should consider the specificity of risks for ASC versus other atypical neurodevelopmental trajectories, timing of risk and protective mechanisms, animal model systems to study mechanisms underlying gene–environment interplay, large-sample genome–envirome designs to address G × E and longitudinal studies to elucidate how rGE plays out over time. Clinical and public health implications are discussed.</td>
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| **Source:** PsycInfo
**Title:** Recognizing the same face in different contexts: Testing within-person face recognition in typical development and in autism.

**Citation:** Journal of experimental child psychology, Mar 2016, vol. 143, p. 139-153, 1096-0457

**Author(s):** Neil, Louise, Cappagli, Giulia, Karaminis, Themelis, Jenkins, Rob, Pellicano, Elizabeth

**Abstract:** Unfamiliar face recognition follows a particularly protracted developmental trajectory and is more likely to be atypical in children with autism than those without autism. There is a paucity of research, however, examining the ability to recognize the same face across multiple naturally varying images. Here, we investigated within-person face recognition in children with and without autism. In Experiment 1, typically developing 6- and 7-year-olds, 8- and 9-year-olds, 10- and 11-year-olds, 12- to 14-year-olds, and adults were given 40 grayscale photographs of two distinct male identities (20 of each face taken at different ages, from different angles, and in different lighting conditions) and were asked to sort them by identity. Children mistook images of the same person as images of different people, subdividing each individual into many perceived identities. Younger children divided images into more perceived identities than adults and also made more misidentification errors (placing two different identities together in the same group) than older children and adults. In Experiment 2, we used the same procedure with 32 cognitively able children with autism. Autistic children reported a similar number of identities and made similar numbers of misidentification errors to a group of typical children of similar age and ability. Fine-grained analysis using matrices revealed marginal group differences in overall performance. We suggest that the immature performance in typical and autistic children could arise from problems extracting the perceptual commonalities from different images of the same person and building stable representations of facial identity.

**Source:** Medline

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**Title:** Characteristics of prisoners with neurodevelopmental disorders and difficulties.

**Citation:** Journal of intellectual disability research : JIDR, Mar 2016, vol. 60, no. 3, p. 201-206, 1365-2788

**Author(s):** McCarthy, J, Chaplin, E, Underwood, L, Forrester, A, Hayward, H, Sabet, J, Young, S, Asherson, P, Mills, R, Murphy, D

**Abstract:** Previous studies have found high rates of attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD) and intellectual disability (ID) within the criminal justice system (CJS). However, little is understood about prisoners with neurodevelopmental disorders and difficulties (NDD) or their needs. This study aimed to identify prisoners with NDD and compare their characteristics with prisoners without NDD on a range of socio-demographic and social functioning measures. This was a descriptive, cross-sectional study carried out using face-to-face interviews with 240 participants in a London Category C prison. Standardised tools were used to assess prisoners for ADHD, ASD and ID. The study identified 87 prisoners who screened positive for one or more type of NDD. Participants with NDD were significantly younger and more likely to be single [(odds ratio) OR = 2.1], homeless (OR = 3.4) or unemployed (OR = 2.6) before they came into prison. They also had poorer educational achievements that those without NDD. Over 80% of those with NDD had a previous conviction or imprisonment. The findings confirm the presence of significant numbers of people with NDD in a male prison. Services across the CJS are required for this group; specifically, there is a need for raised awareness among those working in the CJS to improve the recognition of offenders with NDD. Services in the community need to work with individuals with NDD who are at risk of offending, targeting those who are homeless, unemployed and have poor employment opportunities.

**Source:** Medline

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**Title:** Social functioning and facial expression recognition in children with neurofibromatosis type 1.

**Citation:** Journal of intellectual disability research : JIDR, Mar 2016, vol. 60, no. 3, p. 282-293, 1365-2788

**Author(s):** Allen, T, Willard, V W, Anderson, L M, Hardy, K K, Bonner, M J

**Abstract:** This study examined social functioning and facial expression recognition (FER) in children with neurofibromatosis type 1 (NF1) compared to typically developing peers. Specifically, the current research aimed to identify hypothesised relationships between neurocognitive ability, FER and social functioning. Children, ages 8 to 16, with NF1 (n = 23) and typically developing peers (n = 23) were recruited during regularly scheduled clinic visits and through advertisements on an institutional clinical trials website, respectively. Participants completed a measure of FER, an abbreviated intelligence test and questionnaires regarding their quality of life and behavioural functioning. Parents were also asked to complete questionnaires regarding the social-emotional and cognitive functioning of their child. As expected, there were significant differences between children with NF1 and typically developing peers.
across domains of social functioning and FER. Within the sample of children with NF1, there were no significant associations observed between cognitive measures, social functioning and facial recognition skills. Children with NF1 exhibited high rates of social impairment and weak FER skills compared to controls. The absence of associations between FER with cognitive and social variables, however, suggests something unique about this skill in children with NF1. Theoretical comparisons are made to children with autism spectrum disorders, as this condition may serve as a potentially useful model in better understanding FER in children with NF1.

Source: Medline

Title: Motor signatures in autism spectrum disorder: the importance of variability.

Citation: Journal of neurophysiology, Mar 2016, vol. 115, no. 3, p. 1081-1084, 1522-1598 (March 1, 2016)

Author(s): Parma, Valentina, de Marchena, Ashley B

Abstract: In a recent study, Wang et al. (J Neurophysiol 113: 1989-2001, 2015) used a precision grip force control task to unveil the contribution of feedforward and feedback mechanisms to sensorimotor dysfunction in autism spectrum disorder (ASD). Impairment of both motor control mechanisms was observed, along with significant variability in the motor response. In this Neuro Forum article we discuss these findings within the conceptual framework of the grasping circuit and within the broader context of clinical and research applications based on motor behavior.

Source: Medline
Full text: Available Highwire Press at Journal of Neurophysiology

Title: Efficacy of a facial emotion training program for children and adolescents with autism spectrum disorders.

Citation: Journal of Nonverbal Behavior, Mar 2016, vol. 40, no. 1, p. 13-38, 0191-5886 (Mar 2016)

Author(s): Russo-Ponsaran, Nicole M., Evans-Smith, Bernadette, Johnson, Jason, Russo, Jaclyn, McKown, Clark

Abstract: Twenty-five high-functioning, verbal children and adolescents with autism spectrum disorders (ASD; age range 8–15 years) who demonstrated a facial emotion recognition deficit were block randomized to an active intervention (n = 12) or waitlist control (n = 13) group. The intervention was a modification of a commercially-available, computerized, dynamic facial emotion training tool, the MiX by Humintell®. Modifications were introduced to address the special learning needs of individuals with ASD and to address limitations in current emotion recognition programs. Modifications included: coach-assistance, a combination of didactic instruction for seven basic emotions, scaffold instruction which included repeated practice with increased presentation speeds, guided attention to relevant facial cues, and imitation of expressions. Training occurred twice each week for 45–60 min across an average of six sessions. Outcome measures were administered prior to and immediately after treatment, as well as after a delay period of 4–6 weeks. Outcome measures included (a) direct assessment of facial emotion recognition, (b) emotion self-expression, and (c) generalization through emotion awareness in videos and stories, use of emotion words, and self-, parent-, and teacher-report on social functioning questionnaires. The facial emotion training program enabled children and adolescents with ASD to more accurately and quickly identify feelings in facial expressions with stimuli from both the training tool and generalization measures and demonstrate improved self-expression of facial emotion

Source: PsycInfo

Title: Counting Sheep: Sleep Disorders in Children With Autism Spectrum Disorders.


Author(s): Herrmann, Shoshana

Abstract: This article will discuss the prevalence and types of sleep disorders experienced by children with autism spectrum disorders (ASDs), the risk factors for the development of sleep disorders among children with ASDs, the impact of sleep disorders on children with ASDs, and the role of the primary care provider (PCP) in diagnosing and treating sleep disorders among children with ASDs. Review of published literature on the topic.

Children with ASDs are at risk for the development of chronic sleep disorders, which can have a negative impact on behavior. Both behavioral and pharmacological interventions exist for the treatment of sleep disorders among children with ASDs, with supplemental melatonin being the most widely studied and proven treatment.
PCPs will care for children with ASDs. Therefore, it is vital for PCPs to be knowledgeable about this topic and to promptly assess for and manage sleep disorders among children with ASDs.

**Source:** Medline

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<th>Title</th>
<th>Families of Adolescents with Autism: Facing the Future.</th>
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<tr>
<td><strong>Citation:</strong></td>
<td>Journal of pediatric nursing, Mar 2016, vol. 31, no. 2, p. 204-213, 1532-8449 (2016 Mar-Apr)</td>
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<td><strong>Author(s):</strong></td>
<td>O'Brien, Sandra</td>
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<tr>
<td><strong>Abstract:</strong></td>
<td>The purpose of this report, drawn from a larger study, was to investigate family adaptation in families of adolescents with autism spectrum disorder and to determine whether family adaptation is influenced by: daily stressors, uncertainty regarding the adolescent's disability, and use of coping strategies on the family's adaptation process. Selection of variables was guided by McCubbin's Family Resilience Model. A total of 115 family members, all members of Interactive Autism Network, participated and completed the study using web-based technology. Hierarchical multiple regression analysis showed the independent variables, except use of coping strategies, had a statistically significant relationship with family adaptation. Because few studies have focused on this population, the findings may assist families and health care professionals during this important family life developmental milestone.</td>
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<th>Title</th>
<th>Attention Finally Being Paid to Girls at Risk of Autism.</th>
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<td><strong>Author(s):</strong></td>
<td>Bishop, Somer L, Veenstra-VanderWeele, Jeremy, Sanders, Stephan J</td>
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Author(s): Chawarska, Katarzyna, Macari, Suzanne, Powell, Kelly, DiNicola, Lauren, Shic, Frederick

Abstract: Sexual dimorphism in autism spectrum disorders (ASD) is a well-recognized but poorly understood phenomenon. Females are four times less likely to be diagnosed with ASD than males and, when diagnosed, are more likely to exhibit comorbid anxiety symptoms. One of the key phenotypic features of ASD is atypical attention to socially relevant stimuli. Eye-tracking studies indicate atypical patterns of spontaneous social orienting during the prodromal and early syndromic stages of ASD. However, there have been no studies evaluating sex differences in early social orienting and their potential contribution to later outcomes.

We examined sex differences in social orienting in 6-, 9-, and 12-month-old infants at high genetic risk for ASD (n = 101) and in low-risk controls (n = 61), focusing on neurobehavioral measures of function across a spectrum of autism risk.

Results suggest that, between 6 and 12 months of age, a period highly consequential for the development of nonverbal social engagement competencies, high-risk females show enhanced attention to social targets, including faces, compared to both high-risk males and low-risk males and females. Greater attention to social targets in high-risk infants was associated with less severe social impairments at 2 years.

The results suggest an alternative expression of autism risk in females, which manifests in infancy as increased attention toward socially relevant stimuli. This increased attention may serve as a female protective factor against ASD by providing increased access to social experiences in early development.

Source: Medline

Full text: Available Journal of the American Academy of Child and Adolescent Psychiatry at Caludon Centre Library - Coventry & Warwickshire Partnership NHS Trust

Title: Autism: Will vitamin D supplementation during pregnancy and early childhood reduce the recurrence rate of autism in newborn siblings?

Citation: Medical hypotheses, Mar 2016, vol. 88, p. 74-78, 1532-2777 (March 2016)

Author(s): Stubbs, G, Henley, K, Green, J

Abstract: Vitamin D deficiency is widespread in the world including the vulnerable group of pregnant women. Vitamin D deficiency during pregnancy is hypothesized to contribute to the cause of autism. Further, it is hypothesized that vitamin D supplementation during pregnancy and early childhood will reduce the recurrence rate of autism in newborn siblings.

To investigate the hypothesis an open label prospective study was performed prescribing vitamin D during pregnancy to mothers of children with autism at a dose of 5000IU/day. The newborn siblings were at high risk for the recurrence of autism. The newborn infants were also prescribed vitamin D, 1000IU/day to their third birthday. The newborn siblings were followed for three years and during that time, were assessed for autism on two separate occasions: at 18months and 36months of age. The results were compared to the reported recurrence rates in siblings of autistic children in the literature.

The final outcome was 1 out of 19 (5%) developed autism in contrast to the recurrence rate of approximately 20% in the literature. We did not have a control group, nor was there blinding. The results are promising, however, this is a preliminary study with very small numbers and was uncontrolled. Further study with larger numbers is indicated. The ethics of prescribing a low dosage of vitamin D such as 400IU D3/day to a control group of mothers in comparison to a large dose such as 5000IU D3/day are problematic in our opinion.

Source: Medline

Title: A Comparison of Structural Brain Imaging Findings in Autism Spectrum Disorder and Attention-Deficit Hyperactivity Disorder.

Citation: Neuropsychology review, Mar 2016, vol. 26, no. 1, p. 25-43, 1573-6660 (March 2016)

Author(s): Dougherty, Chase C, Evans, David W, Myers, Scott M, Moore, Gregory J, Michael, Andrew M

Abstract: ASD and ADHD are regarded as distinct disorders in the current DSM-5. However, recent research and the RDoC initiative are recognizing considerable overlap in the clinical presentation of ASD, ADHD, and other neurodevelopmental disorders. In spite of numerous neuroimaging findings in ASD and ADHD, the extent to which either of the above views are supported remains equivocal. Here we compare structural MRI and DTI literature in ASD and ADHD. Our main findings reveal both distinct and shared neural features. Distinct expressions were in total brain volume (ASD: increased volume, ADHD: decreased volume), amygdala (ASD: overgrowth, ADHD: normal), and internal capsule (ASD: unclear, ADHD: reduced FA in DTI). Considerable overlap was noted in the corpus callosum and cerebellum (lower volume in structural MRI and decreased FA in DTI), and superior longitudinal fasciculus (reduced FA in DTI). In addition, we identify brain regions which have not been studied in depth and require more research. We
discuss relationships between brain features and symptomatology. We conclude by addressing limitations of current neuroimaging research and offer approaches that account for clinical heterogeneity to better distinguish brain-behavior relationships.

Title: Abnormal frontal theta oscillations underlie the cognitive flexibility deficits in children with high-functioning autism spectrum disorders.

Citation: Neuropsychology, Mar 2016, vol. 30, no. 3, p. 281-295, 1931-1559 (March 2016)

Author(s): Yeung, Michael K, Han, Yvonne M Y, Sze, Sophia L, Chan, Agnes S

Abstract: Deficits in cognitive flexibility have been suggested to underlie the repetitive and stereotyped behavior in individuals with autism spectrum disorders (ASD). Because cognitive flexibility is primarily mediated by the frontal lobe, where structural and functional abnormalities have been extensively found in these individuals, it is conceivable that their deficits in cognitive flexibility are related to abnormal activations of the frontal lobe. The present study investigates cognitive flexibility and its underlying neurophysiological activities as indicated by theta oscillations in children with ASD. Twenty-five children with high-functioning ASD and 25 IQ- and age-matched typically developing (TD) children were subjected to neuropsychological assessments on cognitive flexibility and electroencephalography recordings. The children with ASD performed significantly worse than the TD children across the tasks of cognitive flexibility, including the modified Wisconsin Card Sorting Test (WCST). These children also demonstrated a reduced increase of the theta power localized in multiple brain regions, including various sectors of the frontal lobe at the late stage (i.e., 600 ms-900 ms poststimulus interval) but not the early stage (i.e., 250 ms-550 ms poststimulus interval) of the performance of the modified WCST. The suppressed late frontal theta activities were further shown to be significantly correlated with a poorer performance on the cognitive flexibility measures. Our findings suggest that abnormal activations of multiple cortical regions, especially the frontal lobe, form the neural basis of the cognitive flexibility deficits in children with ASD. In addition, we found an EEG marker of cognitive flexibility which could be used to monitor treatment outcomes objectively.

Source: Medline

Full text: Available ProQuest at Neuropsychology

Title: Autism Spectrum Disorder, Intellectual Disability, and Delayed Walking.

Citation: Pediatrics, Mar 2016, vol. 137, no. 3, p. 1-8, 1098-4275 (March 2016)

Author(s): Bishop, Somer L, Thurm, Audrey, Farmer, Cristan, Lord, Catherine

Abstract: Delayed onset of independent walking is common in intellectual disability (ID). However, in children with autism spectrum disorders (ASD), delayed walking has not been reported as frequently, despite the high rate of concurrent ID in ASD. This study directly examined the relationship between delayed walking and severity of ID in children with ASD versus other non-ASD diagnoses. Participants were 1185 individuals (ASD, n = 903; non-ASD, n = 282) who received an assessment at age 4 to 12 years (6.89 ± 2.25) that yielded an estimate of nonverbal IQ (NVIQ) and retrospectively reported age of walking from the Autism Diagnostic Interview-Revised. The relationship between diagnostic group and delayed walking (defined as occurring at ≥16 months) as a function of NVIQ was explored using the Cox proportional hazards model. Children with ASD were less likely to exhibit delayed walking than those with non-ASD diagnoses, and this difference was larger at lower levels of NVIQ (P = .002). For example, rates of delayed walking for ASD and non-ASD were 13% and 19%, respectively, in those with NVIQ >85 but 31% and 60% in children with NVIQ <70. Although lower IQ scores were associated with increased rates of late walking in both ASD and non-ASD groups, children with low IQ were more likely to show delayed walking in the absence of ASD. This raises the possibility of separate etiological pathways to ID in children with and without ASD.

Source: Medline

Full text: Available Highwire Press at Pediatrics

Title: Is afternoon cortisol more reliable than waking cortisol in association studies of children with an ASD?

Citation: Physiology & behavior, Mar 2016, vol. 155, p. 218-223, 1873-507X (March 1, 2016)

Author(s): Sharpley, Christopher F, Bitsika, Vicki, Andronicos, Nicholas M, Agnew, Linda L

Abstract: Salivary cortisol may be used as a biomarker of stress and anxiety in children with an Autism Spectrum Disorder (ASD) and is particularly valuable in studies of the association between stress-related
cortisol concentrations and other factors such as comorbid disorders or aspects of the ASD phenotype. Although protocols for the collection of cortisol shortly after waking are often based on the assumption of the presence of a diurnal rhythm in cortisol, that rhythm may not be as reliable in children with an ASD as in non-ASD children. Alternatively, collecting cortisol during the afternoon may represent a more reliable procedure with less inter-participant variability.

**Source:** Medline

**Title:** The relationship between tics, OC, ADHD and autism symptoms: A cross-disorder symptom analysis in Gilles de la Tourette syndrome patients and family-members.

**Citation:** Psychiatry research, Mar 2016, vol. 237, p. 138-146, 1872-7123 (March 30, 2016)

**Author(s):** Huisman-van Dijk, Hilde M, Schoot, Rens van de, Rijkeboer, Marleen M, Mathews, Carol A, Cath, Daniëlle C

**Abstract:** Gilles de la Tourette's syndrome (GTS) is a disorder in which obsessive-compulsive (OC), Attention Deficit Hyperactivity Disorder (ADHD) and autism symptoms occur in up to 60% of patients, suggesting shared etiology. We explored the phenotypic structure of tic, OC, ADHD, and autism symptoms as measured by the YGTSS,Y-BOCS,CAARS and AQ, in 225 GTS patients and 371 family members. First, Confirmatory Factor Analyses (CFA) were performed on the symptom structure of each separate symptom scale. Second, the symptom dimensions derived from each scale were combined in one model, and correlations between them were calculated. Using the correlation matrix, Exploratory Factor Analyses (EFA) were performed on the symptom dimensions across the scales. EFA revealed a five factor structure: tic/aggression/symmetry; OC symptoms/compulsive tics/numbers and patterns; ADHD symptoms; autism symptoms; and hoarding/inattention symptoms. The results are partly in line with the traditional categorical boundaries of the symptom scales used, and partly reveal a symptom structure that cuts through the diagnostic categories. This phenotypic structure might more closely reflect underlying etiologies than a structure that classically describes GTS patients according to absence or presence of comorbid OCD, ADHD and autism, and might inform both future genetic and treatment studies.

**Source:** Medline

**Title:** Meta-analysis of social cognition in attention-deficit/hyperactivity disorder (ADHD): comparison with healthy controls and autistic spectrum disorder.

**Citation:** Psychological medicine, Mar 2016, vol. 46, no. 4, p. 699-716, 1469-8978 (March 2016)

**Author(s):** Bora, E, Pantelis, C

**Abstract:** Impairment in social cognition is an established finding in autism spectrum disorders (ASD). Emerging evidence suggests that attention-deficit/hyperactivity disorder (ADHD) might be also associated with deficits in theory of mind (ToM) and emotion recognition. However, there are inconsistent findings, and it has been debatable whether such deficits persist beyond childhood and how similar social cognitive deficits are in ADHD v. ASD.

We conducted a meta-analysis of social cognition, including emotion recognition and ToM, studies in ADHD compared with healthy controls and ASD. The current meta-analysis involved 44 studies comparing ADHD (n = 1999) with healthy controls (n = 1725) and 17 studies comparing ADHD (n = 772) with ASD (n = 710). Facial and vocal emotion recognition (d = 0.40-0.44) and ToM (d = 0.43) abilities were significantly impaired in ADHD. The most robust facial emotion recognition deficits were evident in anger and fear. Social cognitive deficits were either very subtle (emotion recognition) or non-significant (ToM) in adults with ADHD. Deficits in social cognition, especially ToM, were significantly more pronounced in ASD compared with ADHD. General cognitive impairment has contributed to social cognitive deficits in ADHD. Performance of individuals with ADHD on social cognition lies intermediate between ASD and healthy controls. However, developmental trajectories of social cognition probably differ between ADHD and ASD as social cognitive deficits in ADHD might be improving with age in most individuals. There is a need for studies investigating a potential subtype of ADHD with persistent social cognitive deficits and exploring longitudinal changes in social cognition during development.

**Source:** Medline

**Full text:** Available ProQuest at Psychological Medicine

**Title:** Discriminating autism spectrum disorders from schizophrenia by investigation of mental state attribution on an on-line mentalizing task: A review and meta-analysis.

**Citation:** Schizophrenia research, Mar 2016, vol. 171, no. 1-3, p. 16-26, 1573-2509 (March 2016)

**Author(s):** Bliksted, Vibeke, Ubukata, Shihio, Koelkebeck, Katja

**Abstract:** In recent years, theories of how humans form a "theory of mind" of others ("mentalizing") have
increasingly been called upon to explain impairments in social interaction in mental disorders, such as autism spectrum disorders (ASD) and schizophrenia. However, it remains unclear whether tasks that assess impairments in mentalizing can also contribute to determining differential deficits across disorders, which may be important for early identification and treatment. Paradigms that challenge mentalizing abilities in an on-line, real-life fashion have been considered helpful in detecting disease-specific deficits. In this review, we are therefore summarizing results of studies that assess the attribution of mental states using an animated triangles task. Behavioral as well as brain imaging studies in ASD and schizophrenia have been taken into account. While for neuroimaging methods, data are sparse and investigation methods inconsistent, we performed a meta-analysis of behavioral data to directly investigate performance deficits across disorders. Here, more impaired abilities in the appropriate description of interactions were found in ASD patients than in patients with schizophrenia. Moreover, an analysis of first-episode (FES) versus longer lasting (LLS) schizophrenia showed that usage of mental state terms was reduced in the LLS group. In our review and meta-analysis, we identified performance differences between ASD and schizophrenia that seem helpful in targeting differential deficits, taking into account different stages of schizophrenia. However, to tackle the deficits in more detail, studies are needed that directly compare patients with ASD and schizophrenia using behavioral or neuroimaging methods with more standardized task versions.

Source: Medline

**Title**: Autism spectrum disorder: Presentation and prevalence in a nationally representative Australian sample.

**Citation**: The Australian and New Zealand journal of psychiatry, Mar 2016, vol. 50, no. 3, p. 243-253, 1440-1614 (March 2016)

**Author(s)**: Randall, Melinda, Sciberras, Emma, Brignell, Amand, Ihsen, Elfriede, Efron, Daryl, Dissanayake, Cheryl, Williams, Katrina

**Abstract**: The aim of this study was to identify the prevalence of parent-reported autism spectrum disorder diagnosis in Australia, and examine the developmental profile of children with autism spectrum disorder compared to their peers. Secondary analyses were undertaken on data from the Longitudinal Study of Australian Children. Children were recruited at kindergarten (K cohort) and birth (B cohort), and subsequently completed two-yearly 'waves' of assessments. Autism spectrum disorder diagnostic status was ascertained at Wave 4 along with age of diagnosis by parent report. Standardised tools were used to assess children's quality of life, behaviour, receptive vocabulary and non-verbal intelligence. Prevalence of autism spectrum disorder was 2.5% (95% confidence interval = [2.0, 3.0]) in the B cohort compared to 1.5% (95% confidence interval = [1.2, 2.0]) in the K cohort. In both cohorts, children with autism spectrum disorder had poorer mean quality of life, emotional-behavioural functioning and receptive vocabulary compared with non-autism spectrum disorder peers, and a higher proportion of children with autism spectrum disorder had problems in these areas. However, between 6% and 9% of children with moderate to severe autism spectrum disorder and 12-20% with mild autism spectrum disorder were not reported to have problems with social interaction. The prevalence of a parent-reported diagnosis of autism spectrum disorder before age 7 in Australia was higher in the B cohort. Data from future Longitudinal Study of Australian Children waves will clarify whether autism spectrum disorder has been diagnosed earlier in the B cohort or if there is a continued increase in prevalence. Future waves will also provide crucial information about the types and severity of problems experienced during the primary and secondary school years which will assist service planning.

Source: Medline

**Title**: Commentary on Autism Spectrum Disorder: Presentation and prevalence in a nationally representative Australian sample - Service implications.

**Citation**: The Australian and New Zealand journal of psychiatry, Mar 2016, vol. 50, no. 3, p. 288-289, 1440-1614 (March 2016)

**Author(s)**: Levy, Florence

Source: Medline

**Title**: Premature mortality in autism spectrum disorder.

**Citation**: The British journal of psychiatry : the journal of mental science, Mar 2016, vol. 208, no. 3, p. 232-238, 1472-1465 (March 2016)

**Author(s)**: Hirvikoski, Tatja, Mittendorfer-Rutz, Ellenor, Boman, Marcus, Larsson, Henrik, Lichtenstein, Paul, Bölte, Sven
Abstract: Mortality has been suggested to be increased in autism spectrum disorder (ASD). To examine both all-cause and cause-specific mortality in ASD, as well as investigate moderating role of gender and intellectual ability.

Odds ratios (ORs) were calculated for a population-based cohort of ASD probands (n = 27,122, diagnosed between 1987 and 2009) compared with gender-, age- and county of residence-matched controls (n = 2,672,185).

During the observed period, 24,358 (0.91%) individuals in the general population died, whereas the corresponding figure for individuals with ASD was 706 (2.60%; OR = 2.56; 95% CI 2.38-2.76). Cause-specific analyses showed elevated mortality in ASD for almost all analysed diagnostic categories. Mortality and patterns for cause-specific mortality were partly moderated by gender and general intellectual ability. Premature mortality was markedly increased in ASD owing to a multitude of medical conditions.

Source: Medline
Full text: Available Highwire Press at Education Centre Library - Coventry & Warwickshire Partnership NHS Trust

Title: Efficacy of Low-Dose Buspirone for Restricted and Repetitive Behavior in Young Children with Autism Spectrum Disorder: A Randomized Trial.

Citation: The Journal of Pediatrics, Mar 2016, vol. 170, p. 45, 1097-6833 (March 2016)


Abstract: To determine safety and efficacy of the 5HT1A serotonin partial agonist buspirone on core autism and associated features in children with autism spectrum disorder (ASD). Children 2-6 years of age with ASD (N = 166) were randomized to receive placebo or 2.5 or 5.0 mg of buspirone twice daily. The primary objective was to evaluate the effects of 24 weeks of buspirone on the Autism Diagnostic Observation Schedule (ADOS) Composite Total Score. Secondary objectives included evaluating the effects of buspirone on social competence, repetitive behaviors, language, sensory dysfunction, and anxiety and to assess side effects. Positron emission tomography measures of tryptophan metabolism and blood serotonin concentrations were assessed as predictors of buspirone efficacy.

There was no difference in the ADOS Composite Total Score between baseline and 24 weeks among the 3 treatment groups (P = .400); however, the ADOS Restricted and Repetitive Behavior score showed a time-by-treatment effect (P = .006); the 2.5-mg buspirone group showed significant improvement (P = .003), whereas placebo and 5.0-mg buspirone groups showed no change. Children in the 2.5-mg buspirone group were more likely to improve if they had fewer foci of increased brain tryptophan metabolism on positron emission tomography (P = .018) or if they showed normal levels of blood serotonin (P = .044). Adverse events did not differ significantly among treatment groups.

Treatment with 2.5 mg of buspirone in young children with ASD might be a useful adjunct therapy to target restrictive and repetitive behaviors in conjunction with behavioral interventions.

Source: Medline

Title: Moving beyond a categorical diagnosis of autism.

Citation: The Lancet. Neurology, Mar 2016, vol. 15, no. 3, p. 237-238, 1474-4465 (March 2016)

Author(s): Volkmar, Fred R, McPartland, James C

Source: Medline

Title: Diagnosis of autism spectrum disorder: reconciling the syndrome, its diverse origins, and variation in expression.

Citation: The Lancet. Neurology, Mar 2016, vol. 15, no. 3, p. 279-291, 1474-4465 (March 2016)

Author(s): Constantino, John N, Charman, Tony

Abstract: Recent discoveries about the pathogenesis and symptom structure of autism spectrum disorders (ASDs) are challenging traditional nosology and driving efforts to reconceptualise the diagnosis of autism, a goal made all the more pressing by new prospects for early identification, targeted intervention, and personalised-medicine approaches to specific autistic syndromes. Recognition that ASD represents the severe end of a continuous distribution of social communication abilities in the general population has stimulated attempts to standardise the measurement of autistic traits and to set appropriate clinical
thresholds for diagnosis. Over the next decade, rapid advances in our understanding of symptom structure and the diversity of causes of ASD could be incorporated into the next evolution in the diagnosis of autism, with important implications for research, clinical practice, public health, and policy. As differential effects of personalised therapies are identified in relation to specific causes of autism, the benefits of an updated diagnostic nosology will translate into the delivery of more effective care for patients.

Source: Medline

Title: Rethinking autism.

Citation: The Medical journal of Australia, Mar 2016, vol. 204, no. 4, p. 164., 1326-5377 (March 7, 2016)

Author(s): Newman, Louise K

Source: Medline

Title: Parental report of vaccine receipt in children with autism spectrum disorder: Do rates differ by pattern of ASD onset?

Citation: Vaccine, Mar 2016, vol. 34, no. 11, p. 1335-1342, 1873-2518 (March 8, 2016)


Abstract: A contentious theory espoused by some parents is that regressive-onset of autism spectrum disorder (ASD) is triggered by vaccines. If this were true, then vaccine receipt should be higher in children with regressive-onset ASD compared with other patterns of onset. Parental report of rate of receipt for six vaccines (DPT/DTaP, HepB, Hib, polio, MMR, varicella) was examined in children with ASD (N=2755) who were categorized by pattern of ASD onset (early onset, plateau, delay-plus-regression, regression). All pairwise comparisons were significantly equivalent within a 10% margin for all vaccines except varicella, for which the delay-plus-regression group had lower rates of receipt (81%) than the early-onset (87%) and regression (87%) groups. Findings do not support a connection between regressive-onset ASD and vaccines in this cohort.

Source: Medline

Title: Tuberous sclerosis complex: a rare genetic condition associated with autism spectrum disorder

Citation: Advances in Autism 2016 vol 2 no 2

Author(s) Lisa Underwood, Charlotte Tye

http://www.emeraldinsight.com/doi/abs/10.1108/AIA-02-2016-0005

Title: Advances in tuberous sclerosis complex (TSC) research

Citation: Advances in Autism 2016 vol 2 no 2

Author(s) Lisa Underwood


Title: The impact of tuberous sclerosis complex – a parent’s perspective

Citation: Advances in Autism 2016 vol 2 no 2

Author(s) Helen Willacy


Title: Towards an improved understanding of TSC- associated neuropsychiatric disorders (TAND)

Citation: Advances in Autism 2016 vol 2 no 2

Author(s) Loren Leclezio, Petrus Johannes de Vries


Title: Early developmental pathways to autism spectrum disorder in tuberous sclerosis complex

Citation: Advances in Autism 2016 vol 2 no 2

Author(s) Charlotte Tye, Kandice Varcin, Patrick Bolton

http://www.emeraldinsight.com/doi/abs/10.1108/AIA-01-2016-0004
| Title: Tuberous Sclerosis Australia: a case study of a maturing patient-driven organisation |
| Citation: Advances in Autism 2016 vol 2 no 2 |
| Author(s): Clare Pinkerton Stuart |
| http://www.emeraldinsight.com/doi/abs/10.1108/AIA-01-2016-0002 |

| Title: The National Autism Project: aims and objectives |
| Citation: Good Autism Practice 2015 vol 16 no 2 pp. 5-10(6) |
| Author: Ragan, C Ian |

| Title: Girls on the autism spectrum in the classroom: hidden difficulties and how to help |
| Citation: Good Autism Practice 2015 vol 16 no 2 pp. 11-20(10) |
| Author: Honeybourne, Victoria |
| http://www.ingentaconnect.com/contentone/bild/gap/2015/00000016/00000002/art00003 |

| Title: Theatre and dramatherapy in health education and autism |
| Citation: Good Autism Practice 2015 vol 16 no 2 pp. 21-24(4) |
| Author: Heeks, Bill |
| http://www.ingentaconnect.com/contentone/bild/gap/2015/00000016/00000002/art00004 |

| Title: Autism in the air: using Point of View Video Priming and Natural Environment Teaching to help children with autism travel by plane |
| Citation: Good Autism Practice 2015 vol 16 no 2 pp. 25-32(8) |
| Authors: Ruddy, Lisa; Booth, Nichola; Gaw, MaryRose; Liao, Yini; Dounavi, Katerina; Dillenburger, Karola |
| http://www.ingentaconnect.com/contentone/bild/gap/2015/00000016/00000002/art00005 |

| Title: Using cue-pause-point technique to support the communication of an adolescent on the autism spectrum with echolalia |
| Citation: Good Autism Practice 2015 vol 16 no 2 pp. 33-39(7) |
| Author: Vellal, Swathi |

| Title: Evaluation of a neuro-developmental disorder care pathway for children and adolescents |
| Citation: Good Autism Practice 2015 vol 16 no 2 pp. 69-74(6) |
| Authors: Moosa, Faizal; Sandhu, Tanveer |

| Title: Autism: Will vitamin D supplementation during pregnancy and early childhood reduce the recurrence rate of autism in newborn siblings? |
| Citation: Medical Hypotheses, March 2016, vol./is. 88/(74-78), 0306-9877;1532-2777 (01 Mar 2016) |
| Author(s): Stubbs G., Henley K., Green J. |

**Abstract:** Background: Vitamin D deficiency is widespread in the world including the vulnerable group of pregnant women. Vitamin D deficiency during pregnancy is hypothesized to contribute to the cause of autism. Further, it is hypothesized that vitamin D supplementation during pregnancy and early childhood will reduce the recurrence rate of autism in newborn siblings. Methods: To investigate the hypothesis an open label prospective study was performed prescribing vitamin D during pregnancy to mothers of children with autism at a dose of 5000 IU/day. The newborn siblings were at high risk for the recurrence of autism. The newborn infants were also prescribed vitamin D, 1000 IU/day to their third birthday. The newborn siblings were followed for three years and during that time, were assessed for autism on two separate occasions: at
18 months and 36 months of age. The results were compared to the reported recurrence rates in siblings of autistic children in the literature. Results: The final outcome was 1 out of 19 (5%) developed autism in contrast to the recurrence rate of approximately 20% in the literature. We did not have a control group, nor was there blinding. Conclusions: The results are promising, however, this is a preliminary study with very small numbers and was uncontrolled. Further study with larger numbers is indicated. The ethics of prescribing a low dosage of vitamin D such as 400 IU D3/day to a control group of mothers in comparison to a large dose such as 5000 IU D3/day are problematic in our opinion.

Source: EMBASE

Title: Understanding the Experience of Stigma for Parents of Children with Autism Spectrum Disorder and the Role Stigma Plays in Families' Lives

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(942-953), 0162-3257;1573-3432 (01 Mar 2016)

Author(s): Kinnear S.H., Link B.G., Ballan M.S., Fischbach R.L.

Abstract: Stigma is widely perceived in the lives of families with autism spectrum disorder (ASD) yet large, systematic studies have not been undertaken. Following Link and Phelan's (Ann Rev Sociol 27:363-385, 2001) model, this study of 502 Simons Simplex Collection families details how different factors contribute to stigma and how each appears to increase the overall difficulty of raising a child with ASD. The model begins with the child's behavioral symptoms and then specifies stigma processes of stereotyping, rejection, and exclusion. Autism behaviors contribute both to the difficulty families experience raising a child with autism and to the stigma processes associated with those behaviors. Stigma also plays a significant role (.282, p < .001) in predicting how difficult life is overall for parents.

Source: EMBASE

Title: Early Predictors of Growth in Diversity of Key Consonants Used in Communication in Initially Preverbal Children with Autism Spectrum Disorder

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(1013-1024), 0162-3257;1573-3432 (01 Mar 2016)

Author(s): Woynaroski T., Watson L., Gardner E., Newsom C.R., Keceli-Kaysili B., Yoder P.J.

Abstract: Diversity of key consonants used in communication (DKCC) is a value-added predictor of expressive language growth in initially preverbal children with autism spectrum disorder (ASD). Studying the predictors of DKCC growth in young children with ASD might inform treatment of this under-studied aspect of prelinguistic development. Eighty-seven initially preverbal preschoolers with ASD and their parents were observed at five measurement periods. In this longitudinal correlational investigation, we found that child intentional communication acts and parent linguistic responses to child leads predicted DKCC growth, after controlling for two other predictors and two background variables. As predicted, receptive vocabulary mediated the association between the value-added predictors and endpoint DKCC.

Source: EMBASE

Title: The Effect of Karate Techniques Training on Communication Deficit of Children with Autism Spectrum Disorders

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(978-986), 0162-3257;1573-3432 (01 Mar 2016)

Author(s): Bahrami F., Movahedi A., Marandi S.M., Sorensen C.

Abstract: This investigation examined the long term effect of Karate techniques training on communication of children with autism spectrum disorders (ASD). Thirty school aged children with ASD were randomly assigned to an exercise (n = 15) or a control group (n = 15). Participants in the exercise group were engaged in 14 weeks of Karate techniques training. Communication deficit at baseline, post-intervention (week 14), and at 1 month follow up were evaluated. Exercise group showed significant reduction in communication deficit compared to control group. Moreover, reduction in communication deficit in the exercise group at one month follow up remained unchanged compared to post-intervention time. We concluded that teaching Karate techniques to children with ASD leads to significant reduction in their communication deficit.

Source: EMBASE

Title: Brief Report: Fast Mapping Predicts Differences in Concurrent and Later Language Abilities Among Children with ASD

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(1118-1123), 0162-
Author(s): Venker C.E., Kover S.T., Weismer S.E.

Abstract: This study investigated whether the ability to learn word-object associations following minimal exposure (i.e., fast mapping) was associated with concurrent and later language abilities in children with ASD. Children who were poor learners at age 3½ had significantly lower receptive language abilities than children who successfully learned the new words, both concurrently (n = 59) and 2 years later (n = 53), lending ecological validity to experimental fast-mapping tasks. Fast mapping comprehension at age 3½ was associated with better language outcomes regardless of whether children had produced the new words. These findings highlight the importance of investigating processes of language learning in children with ASD. Understanding these processes will enable the development of maximally effective strategies for supporting word learning.

Source: EMBASE

Title: Trajectories, Long-Term Outcomes and Family Experiences of 76 Adults with Autism Spectrum Disorder

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(1084-1095), 0162-3257;1573-3432 (01 Mar 2016)

Author(s): Chamak B., Bonnialu B.

Abstract: The aim of this retrospective study was to retrace the trajectories and long-term outcomes of individuals with autism in France, and to explore the family experiences. Data obtained from parents enables us to follow the trajectories of 76 adults. Two-thirds of adults with severe autism had a very poor outcome. Those with moderate autism had a better outcome. In adulthood, the majority were in residential accommodation. None were living independently. The trajectories of people with Asperger syndrome or high-functioning autism were more positive since all of them attended school for a long time and some went to university. All of them had a good outcome but they remained dependent on aging parents who had few available supports.

Source: EMBASE

Title: Real-World Executive Functions in Adults with Autism Spectrum Disorder: Profiles of Impairment and Associations with Adaptive Functioning and Co-morbid Anxiety and Depression

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(1071-1083), 0162-3257;1573-3432 (01 Mar 2016)

Author(s): Wallace G.L., Kenworthy L., Pugliese C.E., Popal H.S., White E.I., Brodsky E., Martin A.

Abstract: Although executive functioning (EF) difficulties are well documented among children and adolescents with autism spectrum disorder (ASD), little is known about real-world measures of EF among adults with ASD. Therefore, this study examined parent-reported real-world EF problems among 35 adults with ASD without intellectual disability and their correlations with adaptive functioning and co-morbid anxiety and depression symptomatology. A variable EF profile was found with prominent deficits occurring in flexibility and metacognition. Flexibility problems were associated with anxiety-related symptoms while metacognition difficulties were associated with depression symptoms and impaired adaptive functioning (though the metacognition-adaptive functioning relationship was moderated by ADHD symptoms). These persistent EF problems are predictors of broader functioning and therefore remain an important treatment target among adults with ASD.

Source: EMBASE

Title: Body Constraints on Motor Simulation in Autism Spectrum Disorders

Citation: Journal of Autism and Developmental Disorders, March 2016, vol./is. 46/3(1051-1060), 0162-3257;1573-3432 (01 Mar 2016)

Author(s): Conson M., Hamilton A., De Bellis F., Errico D., Improta I., Mazzarella E., Trojano L., Froalli A.

Abstract: Developmental data suggested that mental simulation skills become progressively dissociated from overt motor activity across development. Thus, efficient simulation is rather independent from current sensorimotor information. Here, we tested the impact of bodily (sensorimotor) information on simulation skills of adolescents with Autism Spectrum Disorders (ASD). Typically-developing (TD) and ASD participants judged laterality of hand images while keeping one arm flexed on chest or while holding both arms extended. Both groups were able to mentally simulate actions, but this ability was constrained by body posture more in ASD than in TD adolescents. The strong impact of actual body information on motor simulation implies that simulative skills are not fully effective in ASD individuals.
Source: EMBASE

Title: Autistic Spectrum Conditions: The essentials for healthcare assistants and assistant practitioners

Citation: British Journal of Healthcare Assistants 2016 vol/iss 10/2

Title: Sexual offending and autism spectrum disorders

Citation: Journal of Intellectual Disabilities & Offending Behaviour 2016 vol/is 7/1 pp35
http://www.emeraldinsight.com/loi/jidob

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<th>Access Notes</th>
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<tbody>
<tr>
<td>Advances in Autism</td>
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<td>Advances In Mental Health And Intellectual Disabilities</td>
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<tr>
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