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Autism

April 2017

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FROM THE PRESIDENT. Focusing Intervention for Autism.

Author(s): RICHARD, GAIL J.
Source: ASHA Leader; Apr 2017; p. 4-5
Database: CINAHL

SLPs and Autism: How Far We Have Come.

Author(s): PRIZANT, BARRY M.
Source: ASHA Leader; Apr 2017; p. 6-7
Database: CINAHL

Texas Couple Spearheads Creation of Autism Community.

Source: ASHA Leader; Apr 2017; p. 13-13
Database: CINAHL

Fecal Transplantation Appears to Affect Autism Symptoms in Children.

Source: ASHA Leader; Apr 2017; p. 15-15
Database: CINAHL

An international review of autism knowledge assessment measures.

Author(s): Harrison, Ashley J.; Slane, Mylissa M.; Hoang, Linh; Campbell, Jonathan M.
Source: Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 262-275
Available in full text at http://journals.sagepub.com/toc/auta/21/3 from SAGE ; Notes: Sign in with OpenAthens details
Available in full text at Autism - from Coventry & Warwickshire Partnership Trust Libraries Print holdings ; Notes: Athens password required
Database: CINAHL
Effects of an employer-based intervention on employment outcomes for youth with significant support needs due to autism.

**Author(s):** Wehman, Paul; Schall, Carol M.; McDonough, Jennifer; Graham, Carolyn; Brooke, Valerie; Riehle, J. Erin; Brooke, Alissa; Ham, Whitney; Lau, Stephanie; Allen, Jaclyn; Avellone, Lauren

**Source:** *Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 276-290*

Available in full text from SAGE; [http://journals.sagepub.com/toc/auta/21/3](http://journals.sagepub.com/toc/auta/21/3) Notes: Sign in with OpenAthens details

Available in full text at Autism - from Coventry & Warwickshire Partnership Trust Libraries Print holdings; Notes: Athens password required

**Database:** CINAHL

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Cumulative risk effects in the bullying of children and young people with autism spectrum conditions.

**Author(s):** Hebron, Judith; Oldfield, Jeremy; Humphrey, Neil

**Source:** *Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 291-300*

Available in full text from SAGE; [http://journals.sagepub.com/toc/auta/21/3](http://journals.sagepub.com/toc/auta/21/3) Notes: Sign in with OpenAthens details

Available in full text at Autism - from Coventry & Warwickshire Partnership Trust Libraries Print holdings; Notes: Athens password required

**Database:** CINAHL

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Psychometric analysis of the Systematic Observation of Red Flags for autism spectrum disorder in toddlers.

**Author(s):** Dow, Deanna; Guthrie, Whitney; Stronach, Sheri T.; Wetherby, Amy M.

**Source:** *Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 301-309*

Available in full text from SAGE; [http://journals.sagepub.com/toc/auta/21/3](http://journals.sagepub.com/toc/auta/21/3) Notes: Sign in with OpenAthens details

Available in full text at Autism - from Coventry & Warwickshire Partnership Trust Libraries Print holdings; Notes: Athens password required

**Database:** CINAHL

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Comparison of nutritional status between children with autism spectrum disorder and typically developing children in the Mediterranean Region (Valencia, Spain).

**Author(s):** Marí-Bauset, Salvador; Llopis-González, Agustín; Zazpe, Itziar; Mari-Sanchis, Amelia; Morales Suárez-Varela, María

**Source:** *Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 310-322*

Available in full text from SAGE; [http://journals.sagepub.com/toc/auta/21/3](http://journals.sagepub.com/toc/auta/21/3) Notes: Sign in with OpenAthens details

Available in full text at Autism - from Coventry & Warwickshire Partnership Trust Libraries Print holdings; Notes: Athens password required

**Database:** CINAHL

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Whether the Autism Spectrum Quotient consists of two different subgroups? Cluster analysis of the Autism Spectrum Quotient in general population.

**Author(s):** Kitazoe, Noriko; Fujita, Naofumi; Izumoto, Yuji; Terada, Shin-ichi; Hatakenaka, Yuhei

**Source:** *Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 323-332*
Changes in anxiety following a randomized control trial of a theatre-based intervention for youth with autism spectrum disorder.

Author(s): Corbett, Blythe A.; Blain, Scott D.; Ioannou, Sara; Balser, Maddie

Source: Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 333-343

Parent-reported patterns of loss and gain in communication in 1- to 2-year-old children are not unique to autism spectrum disorder.

Author(s): Brignell, Amanda; Williams, Katrina; Prior, Margot; Donath, Susan; Reilly, Sheena; Bavin, Edith L.; Eadie, Patricia; Morgan, Angela T.

Source: Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 344-356

Personality traits, autobiographical memory and knowledge of self and others: A comparative study in young people with autism spectrum disorder.

Author(s): Robinson, Sally; Howlin, Patricia; Russell, Ailsa

Source: Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 357-367

The German version of the Child Behavior Checklist 1.5–5 to identify children with a risk of autism spectrum disorder.

Author(s): Limberg, Katharina; Gruber, Karolin; Noterdaeme, Michele

Source: Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 368-374
Clinical outcomes of behavioral treatments for elopement in individuals with autism spectrum disorder and other developmental disabilities.

Author(s): Call, Nathan A.; Alvarez, Jessica P.; Simmons, Christina A.; Lomas Mevers, Joanna E.; Scheithauer, Mindy C.

Source: Autism: The International Journal of Research & Practice; Apr 2017; vol. 21 (no. 3); p. 375-379
Available in full text at http://journals.sagepub.com/toc/auta/21/3(from SAGE); Notes: Sign in with OpenAthens details
Available in full text at Autism - from Coventry & Warwickshire Partnership Trust Libraries Print holdings; Notes: Athens password required

Database: CINAHL

FDA sets public meeting and requests comment on autism medication development.

Source: Brown University Child & Adolescent Psychopharmacology Update; Apr 2017; vol. 19 (no. 4); p. 7

Database: CINAHL

Aging with autism spectrum disorder: an emerging public health problem.

Author(s): Hategan, Ana; Bourgeois, James A.; Goldberg, Jeremy

Source: International Psychogeriatrics; Apr 2017; vol. 29 (no. 4); p. 695-697

Abstract: From 1943, when Leo Kanner originally described autism, and to the first objective criteria for "infantile autism" in DSM-III and the inclusion of Asperger's disorder in DSM-IV, the subsequent classification scheme for autistic disorders has led to a substantial change with the 2013 issuance of the DSM-5 by including subcategories into one umbrella diagnosis of autism spectrum disorder (ASD) (Baker, 2013). ASD is a lifelong neurodevelopmental disorder, characterized by social and communication impairments and restricted, stereotypical patterns of behavior (Baker, 2013). It is currently expected that most, or all of the actual cases of ASD, are identified in a timely way (i.e. in early childhood). However, there are many undiagnosed older adults who may have met the current diagnostic criteria for ASD as children, but never received such a diagnosis due to the fact it had yet to be established. In addition, some patients with relatively less impairing phenotypes may escape formal diagnosis in childhood, only to later be diagnosed in adulthood. Nevertheless, the first generation of diagnosed patients with ASD is now in old age. Many such ASD patients have needed family and institutional support for their lives subsequent to childhood diagnosis. Due to aging and death of their parents and other supportive figures leading to a loss of social structures, there is no better time than now for the medical community to act.

Database: CINAHL

Social and Non-social Hazard Response in Drivers with Autism Spectrum Disorder.

Author(s): Bishop, Haley; Biasini, Fred; Stavrinos, Despina

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 905-917

Database: CINAHL

Parent-Reported Developmental Regression in Autism: Epilepsy, IQ, Schizophrenia Spectrum Symptoms, and Special Education.

Author(s): Gadow, Kenneth; Perlman, Greg; Weber, Rebecca

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 918-926

Database: CINAHL


Author(s): McDaniel, Jena; Yoder, Paul; Watson, Linda

Author(s): Schaller, Ulrich; Rauh, Reinhold

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 961-979

Database: CINAHL

Health Care Transition Planning Among Adolescents with Autism Spectrum Disorder.

Author(s): Walsh, Casey; Jones, Barbara; Schonwald, Alison

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 980-991

Database: CINAHL

Brain-Derived Neurotrophic Factor Levels in Autism: A Systematic Review and Meta-Analysis.

Author(s): Saghaizadeh, Amene; Rezaei, Nima

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1018-1029

Database: CINAHL

Over-Selectivity is Related to Autism Quotient and Empathizing, But not to Systematizing.

Author(s): Reed, Phil

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1030-1037

Database: CINAHL

Investigation of Autism Spectrum Disorder and Autistic Traits in an Adolescent Sample with Anorexia Nervosa.

Author(s): Postorino, Valentina; Scahill, Lawrence; Peppo, Lavinia; Fatta, Laura; Zanna, Valeria; Castiglioni, Maria; Gillespie, Scott; Vicari, Stefano; Mazzone, Luigi

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1051-1061

Database: CINAHL

Electrodermal Variability and Symptom Severity in Children with Autism Spectrum Disorder.

Author(s): Fenning, Rachel; Baker, Jason; Baucom, Brian; Erath, Stephen; Howland, Mariann; Moffitt, Jacquelyn

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1062-1072

Database: CINAHL


Author(s): Krasileva, Kate; Sanders, Stephan; Bal, Vanessa

Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1073-1085

Database: CINAHL
A Comprehensive Examination of Reading Heterogeneity in Students with High Functioning Autism: Distinct Reading Profiles and Their Relation to Autism Symptom Severity.

Author(s): McIntyre, Nancy; Solari, Emily; Grimm, Ryan; Lerro, Lindsay; Gonzales, Joseph; Mundy, Peter
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1086-1101
Database: CINAHL

Life Skills Training for Middle and High School Students with Autism.

Author(s): Chiang, Hsu-Min; Ni, Xinyu; Lee, Young-Sun
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1113-1121
Database: CINAHL

Does the Presence of Anxiety and ADHD Symptoms Add to Social Impairment in Children with Autism Spectrum Disorder?

Author(s): Factor, Reina; Ryan, Sarah; Farley, Julee; Ollendick, Thomas; Scarpa, Angela
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1122-1134
Database: CINAHL

The Experiences of Fathers Who Have Offspring with Autism Spectrum Disorder.

Author(s): Burrell, Alexander; Ives, Jonathan; Unwin, Gemma
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1135-1147
Database: CINAHL


Author(s): Olde Dubbelink, Linda; Geurts, Hilde
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1148-1165
Database: CINAHL

Emotion Perception Mediates the Predictive Relationship Between Verbal Ability and Functional Outcome in High-Functioning Adults with Autism Spectrum Disorder.

Author(s): Otsuka, Sadao; Uono, Shota; Yoshimura, Sayaka; Zhao, Shuo; Toichi, Motomi
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1166-1182
Database: CINAHL

Quantitative Sensory Testing in adults with Autism Spectrum Disorders.

Author(s): Fründt, Odette; Grashorn, Wiebke; Schöttle, Daniel; Peiker, Ina; David, Nicole; Engel, Andreas; Forkmann, Katarina; Wrobel, Nathalie; Münchau, Alexander; Bingel, Ulrike
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1183-1192
Database: CINAHL
Examining the Behavioural Sleep-Wake Rhythm in Adults with Autism Spectrum Disorder and No Comorbid Intellectual Disability.

Author(s): Baker, Emma; Richdale, Amanda
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1207-1222
Database: CINAHL

Implications of Social Groups on Sedentary Behavior of Children with Autism: A Pilot Study.

Author(s): Schenkelberg, Michaela; Rosenkranz, Richard; Milliken, George; Menear, Kristi; Dzewaltowski, David
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1223-1230
Database: CINAHL


Author(s): Ekas, Naomi; McDonald, Nicole; Pruitt, Megan; Messinger, Daniel
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1239-1248
Database: CINAHL


Author(s): Carmo, Joana; Duarte, Elsa; Souza, Cristiane; Pinho, Sandra; Filipe, Carlos
Source: Journal of Autism & Developmental Disorders; Apr 2017; vol. 47 (no. 4); p. 1256-1260
Database: CINAHL

Use of a Digital Modified Checklist for Autism in Toddlers – Revised with Follow-up to Improve Quality of Screening for Autism.

Author(s): Campbell, Kathleen; Carpenter, Kimberly L.H.; Espinosa, Steven; Hashemi, Jordan; Qiu, Qiang; Tepper, Mariano; Calderbank, Robert; Sapiro, Guillermo; Egger, Helen L.; Baker, Jeffrey P.; Dawson, Geraldine
Source: Journal of Pediatrics; Apr 2017; vol. 183 ; p. 133-133
Database: CINAHL

Response to Name in Infants Developing Autism Spectrum Disorder: A Prospective Study.

Author(s): Miller, Meghan; Iosif, Ana-Maria; Hill, Monique; Young, Gregory S.; Schwichtenberg, A.J.; Ozonoff, Sally
Source: Journal of Pediatrics; Apr 2017; vol. 183 ; p. 141-141
Database: CINAHL

Behavioural Challenges in Children with Autism and Other Special Needs.

Author(s): Trute, Sarah
Source: Learning Disability Practice; Apr 2017; vol. 20 (no. 2); p. 13-13
Database: CINAHL
Preparation for the future: A review of tools and strategies to support autonomous goal setting for children and youth with autism spectrum disorders.

Author(s): Hodgetts, Sandra; Park, Elly
Source: Disability & Rehabilitation; Mar 2017; vol. 39 (no. 6); p. 535-543
Database: CINAHL

Investing in autism: better evidence for better care.

Author(s): The Lancet Neurology
Source: The Lancet. Neurology; Apr 2017; vol. 16 (no. 4); p. 251
Database: Medline


Author(s): Kanakri, Shireen M; Shepley, Mardelle; Varni, James W; Tassinary, Louis G
Source: Research in developmental disabilities; Apr 2017; vol. 63 ; p. 85-94
Abstract: BACKGROUND With more students being educated in schools for Autism Spectrum Disorder (ASD) than ever before, architects and interior designers need to consider the environmental features that may be modified to enhance the academic and social success of autistic students in school. AIM This study explored existing empirical research on the impact of noise on children with ASD and provides recommendations regarding design features that can contribute to noise reduction. METHODS AND PROCEDURESA survey, which addressed the impact of architectural design elements on autism-related behavior, was developed for teachers of children with ASD and distributed to three schools. OUTCOMES AND RESULTS Most teachers found noise control to be an important issue for students with autism and many observed children using ear defenders. In terms of managing issues related to noise, most teachers agreed that thick or soundproof walls and carpet in the classroom were the most important issues for children with ASD. CONCLUSIONS Suggested future research should address architectural considerations for building an acoustically friendly environment for children with autism, identifying patterns of problematic behaviors in response to acoustical features of the built environment of the classroom setting, and ways to manage maladaptive behaviors in acoustically unfriendly environments.
Database: Medline

The association between parents’ ratings of ASD symptoms and anxiety in a sample of high-functioning boys and adolescents with Autism Spectrum Disorder.

Author(s): Bitsika, Vicki; Sharpley, Christopher F
Source: Research in developmental disabilities; Apr 2017; vol. 63 ; p. 38-45
Abstract: BACKGROUND The relationship between symptoms of Autism Spectrum Disorder (ASD) and Generalised Anxiety Disorder (GAD) is complex and sometimes confounding. However, exploration of that relationship has significant potential to assist in treatment or avoidance of GAD by identifying ASD-related behaviours as ‘targets’ for intervention with anxious children as well as for preventative treatments that could be implemented into daily routines before children become anxious. To further understanding of this relationship, the association between parent-ratings of their sons’ ASD symptoms and GAD symptoms was investigated in two samples of boys with high-functioning ASD.METHODS Parents of a sample of 90 pre-adolescent (M age=8.8yr) and 60 adolescent males (M age=14.6yr) completed the Social Responsiveness Scale (SRS) and the GAD subscale of the Child and Adolescent Symptom Inventory (CASI-4 GAD) about their sons. RESULTS Pre-adolescents had significantly higher SRS scale scores than adolescents. For pre-adolescents, high levels of tension in social situations were associated with 3.5-times greater likelihood of having GAD; for adolescents, experiencing difficulty in changes in routine was associated with a 10-fold increase in risk of GAD.CONCLUSIONS In addition to focussing upon GAD itself, preventative and treatment options aimed at reducing GAD or its risk might profitably recognise and focus upon these two aspects of ASD that are different across the two age groups but each of which was significantly associated with GAD severity and prevalence in this study.
Database: Medline
Inconsistent staffing and its impact on service delivery in ASD early-intervention.

Author(s): Sulek, Rhylee; Trembath, David; Paynter, Jessica; Keen, Deb; Simpson, Kate

Source: Research in developmental disabilities; Apr 2017; vol. 63 ; p. 18-27

Abstract: BACKGROUND Inconsistent staffing (high turnover, casual workforce) is problematic in organisations, with the potential to impact both staff and services provided. Research has primarily focused on the impacts of inconsistent staffing in child welfare and community services with little evidence surrounding their ability to impact the outcomes for children with Autism Spectrum Disorders attending early-intervention services. AIM The aim of this study was to explore staff views regarding the impact of staff turnover on the delivery of group based early intervention for children with ASD. METHODS AND PROCEDURES We conducted five focus groups involving 29 professional (e.g. teachers, behaviour therapists), para-professional (e.g. child care workers), and managerial staff to explore their views. Audio recordings were transcribed verbatim for use in thematic analysis. OUTCOMES AND RESULTS Two central themes, comprising five categories emerged to encompass participants' views. "Impacts on Staff" accounted for the challenges existing staff felt when working with new and untrained staff in the centre. Participants also expressed concerns for the "Impacts on Service Delivery" that resulted from dynamic staffing, affecting fidelity of interventions and the program itself. CONCLUSIONS AND IMPLICATIONS The findings suggest that lacking a consistent staffing structure is problematic when attempting to provide high quality early intervention services to children with ASD and suggest that future research should investigate the extent of inconsistent staffing, impacts of inconsistent staffing on providing intervention, and develop a range of tools to help measure these effects.

Database: Medline

What is the prevalence of autism spectrum disorder and ASD traits in psychosis? A systematic review.

Author(s): Kincaid, Debbie L; Doris, Michael; Shannon, Ciaran; Mulholland, Ciaran

Source: Psychiatry research; Apr 2017; vol. 250 ; p. 99-105

Abstract: There is increasing evidence to suggest both a symptomatic overlap and a clinically significant degree of co-occurrence between Autism Spectrum Disorders (ASD) and psychotic disorders such as schizophrenia but the nature of such relationships remain unclear. We reviewed the literature reporting prevalence rates of Autistic-like Traits (ALTs) and ASD in populations with a diagnosis of schizophrenia or other psychotic disorder. A search of three large databases was conducted and from this seven studies met the criteria for inclusion. The point prevalence rates for ALTs ranged from 9.6% to 61%, whilst the prevalence rates for diagnosed ASD ranged from <1% to 52% across outpatient and inpatient populations. This suggests that prevalence rates of ALTs and ASD in psychosis populations are much higher than in the general population. This has important implications regarding future research, and clinical implications in terms of ensuring that patients receive the most appropriate diagnosis and treatment.

Database: Medline

Derailing the trolley: Everyday utilitarian judgments in groups high versus low in psychopathic traits or autistic traits.

Author(s): Vyas, Karishma; Jameel, Leila; Bellesi, Giulia; Crawford, Sarah; Channon, Shelley

Source: Psychiatry research; Apr 2017; vol. 250 ; p. 84-91

Abstract: Moral decision-making has been linked with empathy. The present study built on previous work examining the relationship between psychopathy or autism spectrum disorder (ASD), two conditions putatively associated with deficits in empathy, and utilitarian decision-making. Students scoring high on self-report measures of psychopathic or autistic traits were presented with a novel task, 'Utilitarian Judgments', and compared to low trait control groups. This study replicated the classic finding that more direct links between the agents' actions and harm to victims mitigated utilitarian decision-making. It also found that participants made more utilitarian decisions when outcomes involved extreme physical versus everyday social harm. Enhanced utilitarian decision-making was not observed in those scoring high for either psychopathic or autistic traits, although both high trait groups reported that they would experience less discomfort than their low trait counterparts. Verbal reasoning differences were observed for the high
autistic trait group, but not the high psychopathic trait group. The dilemmas that have been typically used to explore utilitarian decision-making describe extreme, hypothetical events involving physical or serious emotional harm. The present findings suggest that this might limit the generalisability of the existing literature and over-emphasise the tendency to make utilitarian decisions when considering everyday dilemmas.

**Database:** Medline

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**Candidate Biomarkers in Children with Autism Spectrum Disorder: A Review of MRI Studies.**

**Author(s):** Li, Dongyun; Karnath, Hans-Otto; Xu, Xiu

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 219-237

**Abstract:** Searching for effective biomarkers is one of the most challenging tasks in the research field of Autism Spectrum Disorder (ASD). Magnetic resonance imaging (MRI) provides a non-invasive and powerful tool for investigating changes in the structure, function, maturation, connectivity, and metabolism of the brain of children with ASD. Here, we review the more recent MRI studies in young children with ASD, aiming to provide candidate biomarkers for the diagnosis of childhood ASD. The review covers structural imaging methods, diffusion tensor imaging, resting-state functional MRI, and magnetic resonance spectroscopy. Future advances in neuroimaging techniques, as well as cross-disciplinary studies and large-scale collaborations will be needed for an integrated approach linking neuroimaging, genetics, and phenotypic data to allow the discovery of new, effective biomarkers.

**Database:** Medline

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**Cellular and Circuitry Bases of Autism: Lessons Learned from the Temporospatial Manipulation of Autism Genes in the Brain.**

**Author(s):** Hulbert, Samuel W; Jiang, Yong-Hui

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 205-218

**Abstract:** Transgenic mice carrying mutations that cause Autism Spectrum Disorders (ASDs) continue to be valuable for determining the molecular underpinnings of the disorders. Recently, researchers have taken advantage of such models combined with Cre-loxP and similar systems to manipulate gene expression over space and time. Thus, a clearer picture is starting to emerge of the cell types, circuits, brain regions, and developmental time periods underlying ASDs. ASD-causing mutations have been restricted to or rescued specifically in excitatory or inhibitory neurons, different neurotransmitter systems, and cells specific to the forebrain or cerebellum. In addition, mutations have been induced or corrected in adult mice, providing some evidence for the plasticity and reversibility of core ASD symptoms. The limited availability of Cre lines that are highly specific to certain cell types or time periods provides a challenge to determining the cellular and circuitry bases of autism, but other technological advances may eventually overcome this obstacle.

**Database:** Medline

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**The Immune System, Cytokines, and Biomarkers in Autism Spectrum Disorder.**

**Author(s):** Masi, Anne; Glozier, Nicholas; Dale, Russell; Guastella, Adam J

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 194-204

**Abstract:** Autism Spectrum Disorder (ASD) is a pervasive neurodevelopmental condition characterized by variable impairments in communication and social interaction as well as restricted interests and repetitive behaviors. Heterogeneity of presentation is a hallmark. Investigations of immune system problems in ASD, including aberrations in cytokine profiles and signaling, have been increasing in recent times and are the subject of ongoing interest. With the aim of establishing whether cytokines have utility as potential biomarkers that may define a subgroup of ASD, or function as an objective measure of response to treatment, this review summarizes the role of the immune system, discusses the relationship between the immune system, the brain, and behavior, and presents previously-identified immune system abnormalities in ASD, specifically addressing the role of cytokines in these aberrations. The roles and identification of biomarkers are also addressed, particularly with respect to cytokine profiles in ASD.
An Overview of Autism Spectrum Disorder, Heterogeneity and Treatment Options.

**Author(s):** Masi, Anne; DeMayo, Marilena M; Glozier, Nicholas; Guastella, Adam J

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 183-193

**Abstract:** Since the documented observations of Kanner in 1943, there has been great debate about the diagnoses, the sub-types, and the diagnostic threshold that relates to what is now known as autism spectrum disorder (ASD). Reflecting this complicated history, there has been continual refinement from DSM-III with 'Infantile Autism' to the current DSM-V diagnosis. The disorder is now widely accepted as a complex, pervasive, heterogeneous condition with multiple etiologies, sub-types, and developmental trajectories. Diagnosis remains based on observation of atypical behaviors, with criteria of persistent deficits in social communication and restricted and repetitive patterns of behavior. This review provides a broad overview of the history, prevalence, etiology, clinical presentation, and heterogeneity of ASD. Factors contributing to heterogeneity, including genetic variability, comorbidity, and gender are reviewed. We then explore current evidence-based pharmacological and behavioral treatments for ASD and highlight the complexities of conducting clinical trials that evaluate therapeutic efficacy in ASD populations. Finally, we discuss the potential of a new wave of research examining objective biomarkers to facilitate the evaluation of sub-typing, diagnosis, and treatment response in ASD.

Database: Medline

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Modifying the Autism Spectrum Rating Scale (6-18 years) to a Chinese Context: An Exploratory Factor Analysis.

**Author(s):** Zhou, Hao; Zhang, Lili; Luo, Xuerong; Wu, Lijie; Zou, Xiaobing; Xia, Kun; Wang, Yimin; Xu, Xiu; Ge, Xiaoling; Jiang, Yong-Hui; Fombonne, Eric; Yan, Weili; Wang, Yi

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 175-182

**Abstract:** The purpose of this study was to explore the psychometric properties of the Chinese version of the autism spectrum rating scale (ASRS). We recruited 1,625 community-based children and 211 autism spectrum disorder (ASD) cases from 4 sites, and the parents of all participants completed the Chinese version of the ASRS. A robust weighted least squares means and variance adjusted estimator was used for exploratory factor analysis. The 3-factor structure included 59 items suitable for the current sample. The item reliability for the modified Chinese version of the ASRS (MC-ASRS) was excellent. Moreover, with 60 as the cut-off point, receiver operating characteristic analysis showed that the MC-ASRS had excellent discriminate validity, comparable to that of the unmodified Chinese version (UC-ASRS), with area under the curve values of 0.952 (95% CI: 0.936-0.967) and 0.948 (95% CI: 0.930-0.965), respectively. Meanwhile, the confirm factor analysis revealed that MC-ASRS had a better construct validity than UC-ASRS based on the above factor solution in another children sample. In conclusion, the MC-ASRS shows better efficacy in epidemiological screening for ASD in Chinese children.

Database: Medline

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**Author(s):** Zhou, Bingrui; Zhou, Hao; Wu, Lijie; Zou, Xiaobing; Luo, Xuerong; Fombonne, Eric; Wang, Yi; Yan, Weili; Xu, Xiu

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 168-174

**Abstract:** The reported prevalence of autism spectrum disorder (ASD) has been increasing rapidly in many parts of the world. However, data on its prevalence in China are largely missing. Here, we assessed the suitability of the modified Chinese version of a newly-developed ASD screening tool, the Modified Chinese Autism Spectrum Rating Scales (MC-ASRS) in screening for ASD in Chinese children aged 6-12 years, through comparison with the Social Responsiveness Scale (SRS) that has been widely used for ASD screening. We recruited the parents/caregivers of 1588 typically-developing children and 190 children with ASD aged 6-12 years to complete the MC-ASRS and SRS, and evaluated the validity of both scales in discriminating children with ASD from those developing typically. The results showed that MC-ASRS performed as well as SRS in sensitivity, specificity, and area-under-the-curve (both >0.95) in receiver
operating characteristic analysis, with a fair false-negative rate. These results suggest that MC-ASRS is a promising tool for screening for children with ASD in the general Chinese population.

**Database: Medline**

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**Chinese Norms for the Autism Spectrum Rating Scale.**

**Author(s):** Zhou, Hao; Zhang, Lili; Zou, Xiaobing; Luo, Xuering; Xia, Kun; Wu, Lijie; Wang, Yimin; Xu, Xiu; Ge, Xiaoling; Jiang, Yong-Hui; Fombonne, Eric; Yan, Wei; Wang, Yi

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 161-167

**Abstract:** This study aimed to establish norms for the modified Chinese version of the Autism Spectrum Rating Scale (ASRS). Participants were recruited from Shanghai, Harbin, Guangzhou, and Changsha, China, and their parents and teachers were invited to complete the Chinese Parent version and the Teacher version of the ASRS. In both versions, boys had significantly higher sub-scale scores and total score (T-score) by 1-3 and 4-5 points respectively, than girls (both P < 0.001). Age had weak correlations with some sub-scores and the T-score (r ranged from -0.1859 to 0.0738), and some reached significance (P < 0.03). The correlations appeared stronger and were more common in females. The T-score based on Chinese norms ideally correlated with the score based on the United States norms in boys and girls for both versions. Norms for the Chinese version of the ASRS for children aged 6-12 years are proposed and may be helpful for screening individuals with autism spectrum disorders from the general population of children.

**Database: Medline**

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**Sex Differences in Diagnosis and Clinical Phenotypes of Chinese Children with Autism Spectrum Disorder.**

**Author(s):** Wang, Shihuan; Deng, Hongzhu; You, Cong; Chen, Kaiyun; Li, Jianying; Tang, Chun; Ceng, Chaoqun; Zou, Yuan; Zou, Xiaobing

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 153-160

**Abstract:** The aim of this study was to explore the differences between boys and girls in the diagnosis and clinical phenotypes of autism spectrum disorder (ASD) in China's mainland. Children diagnosed with ASD (n = 1064, 228 females) were retrospectively included in the analysis. All children were assessed using the Autism Diagnostic Interview-Revised (ADI-R) and Autism Diagnostic Observation Schedule (ADOS). The results showed that girls scored significantly higher in ADI-R socio-emotional reciprocity than boys, and also scored lower in ADI-R and ADOS restricted and repetitive behaviors (RRBs). Meanwhile, the proportions of girls who satisfied the diagnostic cut-off scores in the ADI-R RRBs domain were lower than in boys (P < 0.05). Our results indicated that girls with ASD show greater socio-emotional reciprocity than boys. Girls also tended to show fewer RRBs than boys, and the type of RRBs in girls differ from those in boys. The ADI-R was found to be less sensitive in girls, particularly for assessment in the RRBs domain.

**Database: Medline**

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**Recent Research Progress in Autism Spectrum Disorder.**

**Author(s):** Yu, Xiang; Qiu, Zilong; Zhang, Dai

**Source:** Neuroscience bulletin; Apr 2017; vol. 33 (no. 2); p. 125-129

**Database: Medline**

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**Features of the broader autism phenotype in people with epilepsy support shared mechanisms between epilepsy and autism spectrum disorder.**

**Author(s):** Richard, Annie E; Scheffer, Ingrid E; Wilson, Sarah J

**Source:** Neuroscience and biobehavioral reviews; Apr 2017; vol. 75 ; p. 203-233

**Abstract:** Richard, A.E., I.E. Scheffer and S.J. Wilson. Features of the broader autism phenotype in people with epilepsy support shared mechanisms between epilepsy and autism spectrum disorder. NEUROSCI BIOBEHAV REV 21(1) XXX-XXX, 2016. To inform on mechanisms underlying the comorbidity of epilepsy
and autism spectrum disorder (ASD), we conducted meta-analyses to test whether impaired facial emotion recognition (FER) and theory of mind (ToM), key phenotypic traits of ASD, are more common in people with epilepsy (PWE) than controls. We contrasted these findings with those of relatives of individuals with ASD (ASD-relatives) compared to controls. Furthermore, we examined the relationship of demographic (age, IQ, sex) and epilepsy-related factors (epilepsy onset age, duration, seizure laterality and origin) to FER and ToM. Thirty-one eligible studies of PWE (including 1449 individuals: 77% with temporal lobe epilepsy), and 22 of ASD-relatives (N=1295) were identified by a systematic database search. Analyses revealed reduced FER and ToM in PWE compared to controls (p<0.001), but only reduced ToM in ASD-relatives (p<0.001). ToM was poorer in PWE than ASD-relatives. Only weak associations were found between FER and ToM and epilepsy-related factors. These findings suggest shared mechanisms between epilepsy and ASD, independent of intellectual disability.

Database: Medline

Whole genome sequencing resource identifies 18 new candidate genes for autism spectrum disorder.

**Author(s):** C Yuen, Ryan K; Merico, Daniele; Bookman, Matt; L Howe, Jennifer; Thiruvahindrapuram, Bhooma; Patel, Rohan V; Whitney, Joe; Deffaux, Nicole; Bingham, Jonathan; Wang, Zhuozhi; Pellecchia, Giovanna; Buchanan, Janet A; Walker, Susan; Marshall, Christian R; Uddin, Mohammed; Zarrei, Mehdi; Deneault, Eric; D’Abate, Lia; Chan, Ada J S; Koyanagi, Stephanie; Paton, Tara; Pereira, Sergio L; Hoang, Ny; Engchuan, Worrwato; Higginbotham, Edward J; Ho, Karen; Lamoureux, Sylvia; Li, Weili; MacDonald, Jeffrey R; Nalpathamkalam, Thomas; Sung, Wilson W L; Tsoi, Fiona J; Wei, John; Xu, Lizhen; Tasse, Anne-Marie; Kirby, Emily; Van Etten, William; Twigger, Simon; Roberts, Wendy; Drnic, Irene; Jilderda, Sanne; Modi, Ronnie MacKinnon; Kellam, Barbara; Szego, Michael; Cytrynbaum, Cheryl; Weksberg, Rosanna; Zwaigenbaum, Lonnie; Woodbury-Smith, Marc; Brian, Jessica; Senman, Lili; Iaboni, Alana; Doyle-Thomas, Krisss; Thompson, Ann; Chrysler, Christina; Leef, Jonathan; Savion-Lemieux, Tal; Smith, Isabel M; Liu, Xudong; Nicolson, Rob; Seifer, Vicki; Fedele, Angie; Cook, Edwin H; Dager, Stephen; Estes, Annette; Gallagher, Louise; Malow, Beth A; Parr, Jeremy R; Spence, Sarah J; Vorstman, Jacob; Frey, Brendan J; Robinson, James T; Strug, Lisa J; Fernandez, Bridget A; Elsabaghy, Mayada; Carter, Melissa T; Hallmayer, Joachim; Knoppers, Bartha M; Anagnostou, Eudokia; Szatmari, Peter; Ring, Robert H; Glazer, David; Pletcher, Mathew T; Scherer, Stephen W

**Source:** Nature neuroscience; Apr 2017; vol. 20 (no. 4); p. 602-611

**Abstract:** We are performing whole-genome sequencing of families with autism spectrum disorder (ASD) to build a resource (MSSNG) for subcategorizing the phenotypes and underlying genetic factors involved. Here we report sequencing of 5,205 samples from families with ASD, accompanied by clinical information, creating a database accessible on a cloud platform and through a controlled-access internet portal. We found an average of 73.8 de novo single nucleotide variants and 12.6 de novo insertions and deletions or copy number variations per ASD subject. We identified 18 new candidate ASD-risk genes and found that participants bearing mutations in susceptibility genes had significantly lower adaptive ability (P = 6 × 10^-4). In 294 of 2,620 (11.2%) of ASD cases, a molecular basis could be determined and 7.2% of the cases carried copy number variations and/or chromosomal abnormalities, emphasizing the importance of detecting all forms of genetic variation as diagnostic and therapeutic targets in ASD.

Database: Medline

Dietary adequacy of Egyptian children with autism spectrum disorder compared to healthy developing children.

**Author(s):** Meguid, Nagwa A; Anwar, Mona; Bjørklund, Geir; Hashish, Adel; Chirumbolo, Salvatore; Hemimi, Maha; Sultan, Eman

**Source:** Metabolic brain disease; Apr 2017; vol. 32 (no. 2); p. 607-615

**Abstract:** Although the etiology and pathology of autism spectrum disorder (ASD) is still poorly understood, a number of environmental, anthropological, neurobiological and genetic factors have been related to the pathophysiology of ASD, even the impact of oxidative stress response related to the environment and nutrition intake. Usual recommended dietary habits are based on the combination of behavioral and dietary or nutraceutical interventions together with pharmacotherapy. Investigations about a reliable relationship between diet and ASD are still lacking. The present study aimed at comparing dietary regimens and habits of normally developing apparently healthy children, without diagnosed ASD, with a pediatric population of
individuals affected by autistic disorder. Assessments of nutritional and anthropometric data, in addition to biochemical evaluation for nutrient deficiencies, were performed. A total of 80 children with autistic disorder and 80 healthy, normally developing pediatric individuals were enrolled in the study. Parents were asked to complete the standardized questionnaire regarding the different types of food and the proportion of a serving for their children. Biochemical analysis of micro- and macronutrients were also done. Plotting on the Egyptian sex-specific anthropometric growth (auximetric) chart, absolute weights as well as weight-related for age classes, were significantly higher in cases than healthy controls. No differences between groups were observed in regard to total kilocalories (kcal), carbohydrates, and fat intake. A total of 23.8% of children with autistic disorder vs. 11.3% in the healthy control group had a nutrient intake with features below the Recommended Dietary Allowance (RDA) of protein. Children with autistic disorder showed low dietary intake of some micronutrients; calcium (Ca), magnesium (Mg), iron (Fe), selenium (Se) and sodium (Na), also they had significantly high intake of potassium (K) and vitamin C compared to healthy controls. Serum Mg, Fe, Ca, folate and vitamin B12 in children with autistic disorder were significantly low compared with healthy children. Significant positive correlations between serum Mg, Fe, Ca, vitamin B12 and folate and their levels in food were present. These results confirmed that different nutritional inadequacy was observed in Egyptian children with autistic disorder. The evidence reported in the present study should recommend screening of the nutritional status of ASD children for nutrient adequacy to reduce these deficiencies by dietary means or by administering appropriate vitamin and mineral supplements. Nutritional intervention plan should be tailored to address specific needs.

Database: Medline

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Autistic traits and attention to speech: Evidence from typically developing individuals.

Author(s): Korhonen, Vesa; Werner, Stefan
Source: Logopedics, phoniatrics, vocology; Apr 2017; vol. 42 (no. 1); p. 44-50

Abstract: Individuals with autism spectrum disorder have a preference for attending to non-speech stimuli over speech stimuli. We are interested in whether non-speech preference is only a feature of diagnosed individuals, and whether we can we test implicit preference experimentally. In typically developed individuals, serial recall is disrupted more by speech stimuli than by non-speech stimuli. Since behaviour of individuals with autistic traits resembles that of individuals with autism, we have used serial recall to test whether autistic traits influence task performance during irrelevant speech sounds. The errors made on the serial recall task during speech or non-speech sounds were counted as a measure of speech or non-speech preference in relation to no sound condition. We replicated the serial order effect and found the speech to be more disruptive than the non-speech sounds, but were unable to find any associations between the autism quotient scores and the non-speech sounds. Our results may indicate a learnt behavioural response to speech sounds.

Database: Medline

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Author(s): Constantino, John N
Source: Journal of the American Academy of Child and Adolescent Psychiatry; Apr 2017; vol. 56 (no. 4); p. 354-355

Database: Medline

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Are Social and Communication Difficulties a Risk Factor for the Development of Social Anxiety?

Author(s): Pickard, Hannah; Rijsdijk, Fruhling; Happé, Francesca; Mandy, William
Source: Journal of the American Academy of Child and Adolescent Psychiatry; Apr 2017; vol. 56 (no. 4); p. 344

Abstract: OBJECTIVESocial anxiety (SA) is a common condition associated with social and communication (SC) difficulties in typically developing young people, as well as those with autism spectrum disorder (ASD). Whether SC difficulties place children at risk for developing SA is unclear. Using a longitudinal design, the present study aimed to disentangle the relationship between SA symptoms and SC
difficulties using a population-based sample of 9,491 children from the Avon Longitudinal Study of Parents and Children (ALSPAC). METHOD Parent-reported data on SC difficulties and SA symptoms were collected at ages 7, 10, and 13 years. A cross-lagged panel model was used to investigate the longitudinal stability and directional relationship between latent SC difficulties and SA constructs over time. RESULTS More SC difficulties were associated with greater SA symptoms at all ages. Earlier SC difficulties predicted a small but significant amount of variance in later SA symptoms. The reverse relationship from SA to SC difficulties was not observed. The relationship from SC difficulties to SA was strongest from age 7 to 10 years. No sex differences were observed. CONCLUSION The evidence suggests that SC difficulties may be an important risk factor for the development of SA. These findings suggest the potential usefulness of incorporating social skills training alongside effective interventions to prevent or alleviate symptoms of SA in childhood.

Database: Medline

Age at First Identification of Autism Spectrum Disorder: An Analysis of Two US Surveys.

Author(s): Sheldrick, R Christopher; Maye, Melissa P; Carter, Alice S

Source: Journal of the American Academy of Child and Adolescent Psychiatry; Apr 2017; vol. 56 (no. 4); p. 313-320

Abstract: OBJECTIVE Evidence regarding the age at which autism spectrum disorder (ASD) is identified is essential for improving early detection, yet many extant studies have not applied time-to-event analyses, which account for statistical biases that arise from sampling in cross-sectional surveys by adjusting for child age at time of parental report. Our objective was to estimate age distributions for first identification of ASD in national parent surveys using time-to-event analyses. METHOD We conducted time-to-event analyses of responses to identical questions in the 2011 to 2012 National Survey of Children's Health (n = 95,677) and the 2009 to 2010 National Survey of Children with Special Health Care Needs (n = 371,617). RESULTS Parents in both surveys reported that a minority of ASD cases were identified before age 3 years, and that one-third to one-half of cases were identified after 6 years. In both surveys, a majority of parents described their child's ASD severity as mild, and these parents reported the oldest age at identification (mean, 5.6 and 8.6 years). In contrast, parents who described their child's ASD as severe reported earlier age at identification (mean, 3.7 and 4.5 years). Time-to-event analyses yielded older estimates of age at identification than analyses based on raw distributions. CONCLUSION In two national surveys, a majority of parents of children with ASD reported identification after 3 years, when eligibility for early intervention services expires, and many reported identification of ASD after school age. Later identification of children with milder symptoms highlights the need for early screening that is sensitive to all forms of ASD, regardless of severity.

Database: Medline

Early Identification of Autism Spectrum Disorder: Is Diagnosis by Age 3 a Reasonable Goal?

Author(s): Reiersen, Angela M

Source: Journal of the American Academy of Child and Adolescent Psychiatry; Apr 2017; vol. 56 (no. 4); p. 284-285

Database: Medline

Factors that Influence Autism Knowledge in Hispanic Cultures: a Pilot Study.

Author(s): Colbert, Alison M; Webber, Jo; Graham, Reiko

Source: Journal of racial and ethnic health disparities; Apr 2017; vol. 4 (no. 2); p. 156-164

Abstract: Although the diagnosis of autism spectrum disorder (ASD) is rising, Hispanic children are diagnosed at a disproportionately lower rate compared to other ethnic and racial groups. Lack of ASD knowledge in the Hispanic community may contribute to this disparity. The study objective was to determine whether sociocultural and environmental factors linked to ASD diagnostic disparities were related to Hispanic parents’ ASD knowledge. A 60-item survey assessing demographic information, acculturation, religiosity, social support, and ASD knowledge was administered to 64 Hispanic patients (84 % female; 76 % uninsured; 82 % Catholic) visiting a southwest clinic. Socioeconomic status (SES), social support, language of questionnaire, spiritual attribution of child diagnosis, and religious importance
predicted ASD knowledge, accounting for 43% of variance. Results contribute to understanding how sociocultural and environmental factors influence ASD knowledge within at-risk Hispanic individuals, which can be used to improve information dissemination and ultimately reduce disparity in ASD services.

Database: Medline

Effects of therapeutic recreation on adults with ASD and ID: a preliminary randomized control trial.

Author(s): García-Villamisar, D; Dattilo, J; Muela, C

Source: Journal of intellectual disability research : JIDR; Apr 2017; vol. 61 (no. 4); p. 325-340

Abstract: BACKGROUND The purpose of this research was to examine effects of a therapeutic recreation (TR) program designed to increase executive function (EF), social skills, adaptive behaviours and well-being of adults with autism spectrum disorder (ASD) and intellectual disability (ID). METHOD A preliminary pre-test, post-test randomized control group experimental design was used to measure effects of a 40-week TR program designed to increase EF (TR-EF). The TR-EF used instructional electronically based games delivered during 200 1-h sessions (5/week). RESULTS Participants (experimental group, n = 19; wait-list group, n = 18) were evaluated at baseline and 10 months later. There was a positive and direct impact of the program on several EF and indirect effect on social skills, adaptive behaviour and personal well-being. CONCLUSIONS Findings provide support for inclusion of EF enrichment as a way to enhance effects of TR interventions for adults with ASD and ID. Preliminary results of this study can be considered in planning TR services in the future. In addition to TR-EF program primary effects on EF, there were indirect benefits on adaptive behaviours, personal well-being and social skills.

Database: Medline

Commentary: Critical considerations for studying low-functioning autism.

Author(s): Chakrabarti, Bhismadev

Source: Journal of child psychology and psychiatry, and allied disciplines; Apr 2017; vol. 58 (no. 4); p. 436-438

Abstract: Jack and Pelphrey provide a systematic review of neuroimaging studies in understudied populations within the autistic spectrum, focussing specifically on those with minimal verbal ability, intellectual disability and developmental regression. Despite accounting for nearly a third of the autistic spectrum, the number of studies focussing on these populations is extremely low. This review highlights a critical need for further neuroimaging research on these populations, and provides practical suggestions for overcoming the challenges posed by it. In this commentary, I discuss some of the theoretical questions that arise from the review, on the conceptualisation of the autistic spectrum as well as on optimising experimental design and analysis.

Database: Medline

Annual Research Review: Understudied populations within the autism spectrum - current trends and future directions in neuroimaging research.

Author(s): Jack, Allison; A Pelphrey, Kevin

Source: Journal of child psychology and psychiatry, and allied disciplines; Apr 2017; vol. 58 (no. 4); p. 411-435

Abstract: BACKGROUND Autism spectrum disorders (ASDs) are a heterogeneous group of neurodevelopmental conditions that vary in both etiology and phenotypic expression. Expressions of ASD characterized by a more severe phenotype, including autism with intellectual disability (ASD + ID), autism with a history of developmental regression (ASD + R), and minimally verbal autism (ASD + MV) are understudied generally, and especially in the domain of neuroimaging. However, neuroimaging methods are a potentially powerful tool for understanding the etiology of these ASD subtypes. SCOPE AND METHODOLOGY This review evaluates existing neuroimaging research on ASD + MV, ASD + ID, and ASD + R, identified by a search of the literature using the PubMed database, and discusses methodological, theoretical, and practical considerations for future research involving neuroimaging assessment of these populations. FINDINGS There is a paucity of neuroimaging research on ASD + ID,
ASD + MV, and ASD + R, and what findings do exist are often contradictory, or so sparse as to be ungeneralizable. We suggest that while greater sample sizes and more studies are necessary, more important would be a paradigm shift toward multimodal (e.g. imaging genetics) approaches that allow for the characterization of heterogeneity within etiologically diverse samples.

Database: Medline

The Psychometric Properties of a New Measure of Sensory Behaviors in Autistic Children.

Author(s): Neil, Louise; Green, Dido; Pellicano, Elizabeth

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1261-1268

Abstract: Unusual reactions to sensory input became part of the diagnostic criteria for autism spectrum disorder in the DSM-5. Measures accurately assessing these symptoms are important for clinical decisions. This study examined the reliability and validity of the Sensory Behavior Questionnaire, a parent-report scale designed to assess frequency and impact of sensory behaviors in autistic children. The scale demonstrated excellent internal consistency and concurrent validity, and was a better predictor of autistic symptoms than the Short Sensory Profile within a group of 66 school-age autistic children. The scale also successfully discriminated between autistic and typical children of similar age and ability. The Sensory Behavior Questionnaire has potential as a measure of sensory behaviors in children on the autism spectrum.

Database: Medline


Author(s): Carmo, Joana C; Duarte, Elsa; Souza, Cristiane; Pinho, Sandra; Filipe, Carlos N

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1256-1260

Abstract: In the present study we aim at providing further evidences for the validity of an initiation processes impairment in autism spectrum disorder (ASD). We applied different verbal fluency tasks designed to decrease or enhance this limitation. A group of high-functioning individuals with ASD and a group of typically developed individuals matched for age, -IQ and -education, were tested in three verbal fluency tasks. In task 1, we replicated previous findings of an initiation impairment. In tasks 2 and 3, with simple manipulations, we observed that the differences between the groups were respectively eliminated or enhanced. We have not only provided further evidence of impairments in the initiation of a response, but we remarkably show how to circumvent them.

Database: Medline


Author(s): Ekas, Naomi V; McDonald, Nicole M; Pruitt, Megan M; Messinger, Daniel S

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1239-1248

Abstract: Parents of children with autism spectrum disorder (ASD) report concerns with child compliance. The development of compliance in 24-, 30-, and 36-month-old high-risk children with ASD outcomes (n = 21), high-risk children without ASD (n = 49), and low-risk children (n = 41) was examined. The High-Risk/ASD group showed greater passive noncompliance at 24-months than the non-ASD groups and a smaller increase in compliance than the High-Risk/No ASD group. The High-Risk/ASD group also showed a smaller decline in active noncompliance than the Low-Risk group. After controlling for receptive language, the passive noncompliance findings were nonsignificant whereas compliance and active noncompliance findings retained significance. The growth of compliance is attenuated in children with ASD, while changes in passive noncompliance are in part associated with language comprehension.

Database: Medline

Implications of Social Groups on Sedentary Behavior of Children with Autism: A Pilot Study.
Author(s): Schenkelberg, Michaela A; Rosenkranz, Richard R; Milliken, George A; Menear, Kristi; Dzewaltowski, David A
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1223-1230
Abstract: This pilot study compared sedentary behavior (SB) of children with autism (ASD) to typically developing peers (TD), and evaluated the influence of social contexts within free play (FP) and organized activity settings on SB of children with ASD during an inclusive summer camp. Participants with ASD were matched with TD peers by age and gender, and a modified OSRAC-P was utilized to assess SB and social context by setting. SB did not differ by diagnosis (ASD, TD), setting, or social contexts. In FP, children with ASD spent significantly more time in SB within social contexts compared to solitary contexts. ASD-related social deficits may facilitate SB in children with ASD during summer camp FP social contexts, compared to a solitary context.
Database: Medline

Examining the Behavioural Sleep-Wake Rhythm in Adults with Autism Spectrum Disorder and No Comorbid Intellectual Disability.

Author(s): Baker, Emma K; Richdale, Amanda L
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1207-1222
Abstract: This study aimed to examine the behavioural sleep-wake rhythm in 36 adults with autism spectrum disorder (ASD) and to determine the prevalence of circadian sleep-wake rhythm disorders compared to age- and sex-matched controls. Participants completed an online questionnaire battery, a 14-day sleep-wake diary and 14-day actigraphy assessment. The results indicated that a higher proportion of adults with ASD met criteria for a circadian rhythm sleep-wake disorder compared to control adults. In particular, delayed sleep-wake phase disorder was particularly common in adults with ASD. Overall the findings suggest that individuals with ASD have sleep patterns that may be associated with circadian rhythm disturbance; however factors such as employment status and co-morbid anxiety and depression appear to influence their sleep patterns.
Database: Medline

Quantitative Sensory Testing in adults with Autism Spectrum Disorders.

Author(s): Fründt, Odette; Grashorn, Wiebke; Schöttle, Daniel; Peiker, Ina; David, Nicole; Engel, Andreas K; Forkmann, Katarina; Wrobel, Nathalie; Münchau, Alexander; Bingel, Ulrike
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1183-1192
Abstract: Altered sensory perception has been found in patients with autism spectrum disorders (ASD) and might be related to aberrant sensory perception thresholds. We used the well-established, standardized Quantitative sensory testing (QST) protocol of the German Research Network on Neuropathic Pain to investigate 13 somatosensory parameters including thermal and tactile detection and pain thresholds in 13 ASD adults and 13 matched healthy controls with normal IQ values. There were no group differences between somatosensory detection and pain thresholds. Two ASD patients showed paradoxical heat sensations and another two ASD subjects presented dynamic mechanical allodynia; somatosensory features that were absent in controls. These findings suggest that central mechanisms during complex stimulus integration rather than peripheral dysfunctions probably determine somatosensory alterations in ASD.
Database: Medline

Emotion Perception Mediates the Predictive Relationship Between Verbal Ability and Functional Outcome in High-Functioning Adults with Autism Spectrum Disorder.

Author(s): Otsuka, Sadao; Uono, Shota; Yoshimura, Sayaka; Zhao, Shuo; Toichi, Motomi
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1166-1182
Abstract: The aim of this study was to identify specific cognitive abilities that predict functional outcome in high-functioning adults with autism spectrum disorder (ASD), and to clarify the contribution of those abilities and their relationships. In total, 41 adults with ASD performed cognitive tasks in a broad range of neuro- and social cognitive domains, and information concerning functional outcomes was obtained. Regression
analyses revealed that emotion perception and verbal generativity predicted adaptive functioning directly, and the former mediated between the other two. These findings provide the first evidence of a triadic relationship among neuro- and social cognition and functional outcome in this population. Our results suggest that psychosocial interventions targeting these cognitive abilities could benefit social adaptation in adults with ASD.

Database: Medline


Author(s): Olde Dubbelink, Linda M E; Geurts, Hilde M
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1148-1165
Abstract: Individuals with an autism spectrum disorder (ASD) are thought to encounter planning difficulties, but experimental research regarding the mastery of planning in ASD is inconsistent. By means of a meta-analysis of 50 planning studies with a combined sample size of 1755 individuals with and 1642 without ASD, we aim to determine whether planning difficulties do exist and which factors contribute to this. Planning problems were evident in individuals with ASD (Hedges'g = 0.52), even when taking publication bias into account (Hedges'g = 0.37). Neither age, nor task-type, nor IQ reduced the observed heterogeneity, suggesting that these were not crucial moderators within the current meta-analysis. However, while we showed that ASD individuals encounter planning difficulties, the bias towards publishing positive findings restricts strong conclusions regarding the role of potential moderators.

Database: Medline

The Experiences of Fathers Who Have Offspring with Autism Spectrum Disorder.

Author(s): Burrell, Alexander; Ives, Jonathan; Unwin, Gemma
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1135-1147
Abstract: Research exploring parents' experiences of having offspring with autism spectrum disorder (ASD) currently underrepresents fathers. This study aimed to develop an understanding of the experience of fathers, with a view to facilitating improved support. Eight fathers participated in semi-structured interviews exploring their experiences of fathering children with ASD. Fathers described their experiences as a path towards acceptance, with independence and integration for their offspring being key goals. Fathers saw themselves as advocates fighting obstructive services to access appropriate care. The value placed on formal and informal support varied, although the need for personalised support was emphasised. Enabling fathers to see their experiences as a journey, whilst engaging them on the important topics of independence and integration, may improve their experience.

Database: Medline

Does the Presence of Anxiety and ADHD Symptoms Add to Social Impairment in Children with Autism Spectrum Disorder?

Author(s): Factor, Reina S; Ryan, Sarah M; Farley, Julee P; Ollendick, Thomas H; Scarpa, Angela
Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1122-1134
Abstract: Children with autism spectrum disorder (ASD) experience internalizing and externalizing problems at higher rates than typically developing children, which could worsen social impairment. The present study compared impairment scores (social responsiveness scale, 2nd edition; SRS-2 scores) in 57 children (3-17 years, 82.5% male) with ASD, either with or without heightened levels of anxiety or ADHD symptoms, all per parent report. Children with heightened anxiety problems showed higher scores on four SRS-2 subscales (Social Cognition, Social Communication, Social Motivation, and Restricted Interests and Repetitive Behavior). Children with heightened ADHD traits showed higher scores on two subscales (Social Communication and Social Awareness). These findings suggest similarities and differences in how social deficits in ASD may worsen with anxiety or ADHD symptoms.

Database: Medline
Life Skills Training for Middle and High School Students with Autism.

Author(s): Chiang, Hsu-Min; Ni, Xinyu; Lee, Young-Sun

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1113-1121

Abstract: This study investigated the extent to which life skills training was offered to middle and high school students with autism and life skills training needs after high school. A secondary analysis of the National Longitudinal Training Study-2 (NLTS-2) data was conducted in this study. This study found that the majority of the middle and high school students with autism (77.4%) had received life skills training in school. Receipt of life skills training differed across students' gender, age, diagnosis of intellectual disability, and functional mental skills. Students received life skills training in general education classrooms, special education classrooms, individual instruction, and community settings. Life skills training was needed for the majority of the high school leavers with autism (78%).

Database: Medline

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A Comprehensive Examination of Reading Heterogeneity in Students with High Functioning Autism: Distinct Reading Profiles and Their Relation to Autism Symptom Severity.

Author(s): McIntyre, Nancy S; Solari, Emily J; Grimm, Ryan P; E Lerro, Lindsay; E Gonzales, Joseph; Mundy, Peter C

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1086-1101

Abstract: The goal of this study was to identify unique profiles of readers in a sample of 8-16 year olds with higher functioning autism spectrum disorders (HFASD) and examine the profiles in relation to ASD symptom severity. Eighty-one students were assessed utilizing a comprehensive reading battery that included basic word reading, language, and comprehension. Using Latent Profile Analysis, four empirically distinct profiles of readers emerged. Next, using the Autism Diagnostic Observation Schedule, Second Edition (Lord et al., Autism diagnostic observation schedule, 2nd edn, Western Psychological Services, Torrance, CA, 2012), analyses were conducted to determine if significant differences existed between profiles as a result of ASD symptomatology. Findings demonstrate the heterogeneous nature of reading profiles in students with HFASD and significant differences between the reading profiles and ASD symptom severity.

Database: Medline

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Author(s): Krasileva, Kate E; Sanders, Stephan J; Bal, Vanessa Hus

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1073-1085

Abstract: This study assessed the utility of a brief assessment (the Peabody Picture Vocabulary Test-4th Edition; PPVT4) as a proxy for verbal IQ (VIQ) in large-scale studies of autism spectrum disorder (ASD). In a sample of 2,420 proband with ASD, PPVT4:VIQ correlations were strong. PPVT4 scores were, on average, 5.46 points higher than VIQ; 79% of children had PPVT4 scores within one standard deviation (+/-15) of their VIQ and 90% were similarly classified as having abilities above or below 70 on both measures. Distributions of PPVT4 and VIQ by de novo mutation status were highly similar. These results strongly support the utility of PPVT4 as a proxy for VIQ in large-scale ASD studies, particularly for genetic investigations.

Database: Medline

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Electrodermal Variability and Symptom Severity in Children with Autism Spectrum Disorder.

Author(s): Fenning, Rachel M; Baker, Jason K; Baucom, Brian R; Erath, Stephen A; Howland, Mariann A; Moffitt, Jacqulyn

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1062-1072
Abstract: Associations between variability in sympathetic nervous system arousal and individual differences in symptom severity were examined for children with autism spectrum disorder (ASD). Thirty-four families participated in a laboratory visit that included continuous measurement of electrodermal activity (EDA) during a battery of naturalistic and structured parent-child, child alone, and direct testing tasks. Multiple indices of EDA were considered. Greater variability in EDA was associated with higher levels of ASD symptoms, with findings generally consistent across tasks. Intellectual functioning did not moderate the relation between EDA and ASD symptoms. Sympathetic arousal tendencies may represent an important individual difference factor for this population. Future directions and conceptualizations of EDA are discussed.

Database: Medline

Investigation of Autism Spectrum Disorder and Autistic Traits in an Adolescent Sample with Anorexia Nervosa.

Author(s): Postorino, Valentina; Scahill, Lawrence; De Peppo, Lavinia; Fatta, Laura Maria; Zanna, Valeria; Castiglioni, Maria Chiara; Gillespie, Scott; Vicari, Stefano; Mazzone, Luigi

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1051-1061

Abstract: This study aimed to examine the presence of Autism Spectrum Disorder (ASD) in a sample of female adolescents with Anorexia Nervosa (AN) during the acute phase of illness. We also compare the level of autistic traits, social perception skills and obsessive-compulsive symptoms in four groups: AN, ASD, and two gender- and age-matched control groups. Of the 30 AN participants, only three scored above the conventional ADOS-2 threshold for ASD. The AN participants were similar to their controls on autistic trait measures, and to the ASD group on obsessive-compulsive measures, and on theory of mind ability and affect recognition measures. Further longitudinal studies are needed in order to determine the association between these conditions.

Database: Medline

Mentoring University Students with ASD: A Mentee-centered Approach.

Author(s): Roberts, Nicole; Birmingham, Elina

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1038-1050

Abstract: This study presents a conceptual understanding of how mentorship is experienced by the participants of a mentorship program for university students with Autism Spectrum Disorder. We interviewed the participants of the Autism Mentorship Initiative at Simon Fraser University. A grounded theory approach was used to systematically organize data from interviews and documents to reveal themes that were salient to the mentees (students with autism; n = 9) and mentors (neurotypical students; n = 9). The following five main themes were identified and interrelated under the core theme of A Mentee-centered Approach: (1) The Natural Progression of the Relationship, (2) The Supportive Mentor, (3) The Meeting Process, (4) Identifying and Implementing Goals, and (5) Learning Together. An in-depth analysis of a mentorship process is described.

Database: Medline

Over-Selectivity is Related to Autism Quotient and Empathizing, But not to Systematizing.

Author(s): Reed, Phil

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1030-1037

Abstract: The relationships of autism quotient (AQ), systematizing (SQ), and empathizing (EQ), with over-selectivity were explored to assess whether over-selectivity is implicated in complex social skills, which has been assumed, but not experimentally examined. Eighty participants (aged 18-60) were trained on a simultaneous discrimination task (AB+CD-), and tested in extinction on the degree to which they had learned about both elements of the reinforced (AB) compound. Higher AQ and lower EQ scorers demonstrated greater over-selectivity, but there was no relationship between SQ and over-selectivity. These results imply that high AQ scorers perform similarly to individuals with ASD on this cognitive task, and that over-selectivity may be related to some complex social skills, like empathy.

Database: Medline
Brain-Derived Neurotrophic Factor Levels in Autism: A Systematic Review and Meta-Analysis.

Author(s): Saghazadeh, Amene; Rezaei, Nima

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1018-1029

Abstract: Brain-derived neurotrophic factor (BDNF) plays an important role in activity-dependent synaptic plasticity. Altered blood BDNF levels have been frequently identified in people with autism spectrum disorders (ASD). There are however wide discrepancies in the evidence. Therefore, we performed the present systematic review and meta-analysis aimed at qualitative and quantitative synthesis of studies that measured blood BDNF levels in ASD and control subjects. Observational studies were identified through electronic database searching and also hand-searching of reference lists of relevant articles. A total of 183 papers were initially identified for review and eventually twenty studies were included in the meta-analysis. A meta-analysis of blood BDNF in 887 patients with ASD and 901 control subjects demonstrated significantly higher BDNF levels in ASD compared to controls with the SMD of 0.47 (95% CI 0.07-0.86, p = 0.02). In addition subgroup meta-analyses were performed based on the BDNF specimen. The present meta-analysis study led to conclusion that BDNF might play role in autism initiation/propagation and therefore it can be considered as a possible biomarker of ASD.

Database: Medline

Do Handwriting Difficulties Correlate with Core Symptomology, Motor Proficiency and Attentional Behaviours?

Author(s): Grace, Nicci; Enticott, Peter Gregory; Johnson, Beth Patricia; Rinehart, Nicole Joan

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 1006-1017

Abstract: Handwriting is commonly identified as an area of weakness in children with autism spectrum disorder (ASD), but precise deficits have not been fully characterised. Boys with ASD (n = 23) and matched controls (n = 20) aged 8-12 years completed a simple, digitised task to objectively assess handwriting performance using advanced descriptive measures. Moderate to large associations were identified between handwriting performance and attention, ASD symptoms and motor proficiency. The ASD group demonstrated significantly less smooth movements and significantly greater sizing variability and peak velocity relative to controls. These findings provide a clearer indication of the specific nature of handwriting impairments in children with ASD, and suggest a relationship with core clinical symptom severity, attention and motor behaviours.

Database: Medline

Health Care Transition Planning Among Adolescents with Autism Spectrum Disorder.

Author(s): Walsh, Casey; Jones, Barbara; Schonwald, Alison

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 980-991

Abstract: Improving the health care transition process for youth with autism spectrum disorder (ASD) is critically important. This study was designed to examine the overall national transition core outcome among youth with ASD and each of the component measures of health care transition planning. Fewer than 10% of youth with ASD meet the national transition core outcome. Among youth with ASD, there is greater disparity in health care transition planning for non-Hispanic black youth, youth with family income <400% of the federal poverty line, and youth with more severe activity limitation. Continued advocacy, research, and training efforts are needed to reduce disparities in receipt of health care transition planning services for youth with ASD.

Database: Medline


Author(s): M Schaller, Ulrich; Rauh, Reinhold

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 961-979
Abstract: We tested social cognition abilities of adolescents with autism spectrum disorders (ASD) and neurotypically developed peers (NTD). A multi-faceted test-battery including facial emotion categorization (FEC), classical false belief tasks (FBT), and complex social cognition (SC), yielded significantly lower accuracy rates for FEC and complex SC tasks in ASD, but no significant differences in performance concerning FBT. A significant correlation between age and performance in a FEC task and in a complex task was found only in ASD. We propose that dynamic and/or fragmented FEC tasks can elicit deficits in implicit processing of facial emotion more efficiently. The difficulties of ASD in solving complex SC tasks can be ascribed to deficits in the acquisition and application of social schemata.

Database: Medline


Author(s): McDaniel, Jena; Yoder, Paul; Watson, Linda R

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 947-960

Abstract: We examined direct and indirect paths involving receptive vocabulary and diversity of key consonants used in communication (DKCC) to improve understanding of why previously identified value-added predictors are associated with later expressive vocabulary for initially preverbal children with autism spectrum disorder (ASD; n = 87). Intentional communication, DKCC, and parent linguistic responses accounted for unique variance in later expressive vocabulary when controlling for mid-point receptive vocabulary, but responding to joint attention did not. We did not confirm any indirect paths through mid-point receptive vocabulary. DKCC mediated the association between intentional communication and expressive vocabulary. Further research is needed to replicate the findings, test potentially causal relations, and provide a specific sequence of intervention targets for preverbal children with ASD.

Database: Medline

Priming Facial Gender and Emotional Valence: The Influence of Spatial Frequency on Face Perception in ASD.

Author(s): Vanmarcke, Steven; Wagemans, Johan

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 927-946

Abstract: Adolescents with and without autism spectrum disorder (ASD) performed two priming experiments in which they implicitly processed a prime stimulus, containing high and/or low spatial frequency information, and then explicitly categorized a target face either as male/female (gender task) or as positive/negative (Valence task). Adolescents with ASD made more categorization errors than typically developing adolescents. They also showed an age-dependent improvement in categorization speed and had more difficulties with categorizing facial expressions than gender. However, in neither of the categorization tasks, we found group differences in the processing of coarse versus fine prime information. This contradicted our expectations, and indicated that the perceptual differences between adolescents with and without ASD critically depended on the processing time available for the primes.

Database: Medline

Parent-Reported Developmental Regression in Autism: Epilepsy, IQ, Schizophrenia Spectrum Symptoms, and Special Education.

Author(s): Gadow, Kenneth D; Perlman, Greg; Weber, Rebecca J

Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 918-926

Abstract: Examined the psychiatric and clinical correlates of loss of previously acquired skills (regression) as reported by parents of youth with autism spectrum disorder (ASD). Study sample comprised 6- to 18-year old (N = 213) children and adolescents with ASD. Parents reported regression in 77 (36%) youth. A more homogeneous subgroup with regression between 18 and 36 months (n = 48) had higher rates of intellectual disability, epilepsy, and special education, more socially restrictive educational settings, and more severe ASD communication deficits and schizophrenia spectrum symptoms than non-regressed youth (n = 136). Similar results were obtained for a more inclusive definition of regression (n = 77). A brief parent report of developmental regression may be a useful clinical indicator of later general functioning.
**Social and Non-social Hazard Response in Drivers with Autism Spectrum Disorder.**

*Author(s):* Bishop, Haley Johnson; Biasini, Fred J; Stavrinos, Despina

*Source: Journal of autism and developmental disorders; Apr 2017; vol. 47 (no. 4); p. 905-917*

*Abstract:* Driving is a complex task that relies on manual, cognitive, visual and social skill. The social demands of driving may be challenging for individuals with Autism Spectrum Disorder (ASD) due to known social impairments. This study investigated how drivers with ASD respond to social (e.g., pedestrians) and non-social (e.g., vehicles) hazards in a driving simulator compared to typically developing drivers. Overall, participants responded faster to social hazards than non-social hazards. It was also found that drivers with typical development reacted faster to social hazards, while drivers with ASD showed no difference in reaction time to social versus non-social hazards. Future work should further investigate how social impairments in ASD may affect driving safety.

**Aging with autism spectrum disorder: an emerging public health problem.**

*Author(s):* Hategan, Ana; Bourgeois, James A; Goldberg, Jeremy

*Source: International psychogeriatrics; Apr 2017; vol. 29 (no. 4); p. 695-697*

*Abstract:* From 1943, when Leo Kanner originally described autism, and to the first objective criteria for "infantile autism" in DSM-III and the inclusion of Asperger's disorder in DSM-IV, the subsequent classification scheme for autistic disorders has led to a substantial change with the 2013 issuance of the DSM-5 by including subcategories into one umbrella diagnosis of autism spectrum disorder (ASD) (Baker, 2013). ASD is a lifelong neurodevelopmental disorder, characterized by social and communication impairments and restricted, stereotypical patterns of behavior (Baker, 2013). It is currently expected that most, or all of the actual cases of ASD, are identified in a timely way (i.e. in early childhood). However, there are many undiagnosed older adults who may have met the current diagnostic criteria for ASD as children, but never received such a diagnosis due to the fact it had yet to be established. In addition, some patients with relatively less impairing phenotypes may escape formal diagnosis in childhood, only to later be diagnosed in adulthood. Nevertheless, the first generation of diagnosed patients with ASD is now in old age. Many such ASD patients have needed family and institutional support for their lives subsequent to childhood diagnosis. Due to aging and death of their parents and other supportive figures leading to a loss of social structures, there is no better time than now for the medical community to act.

**Autism Spectrum Disorders - Diagnosis and Management.**

*Author(s):* Mukherjee, Sharmila Banerjee

*Source: Indian journal of pediatrics; Apr 2017; vol. 84 (no. 4); p. 307-314*

*Abstract:* Autism Spectrum Disorder (ASD) is a neuro-developmental disorder commonly seen in children. It is characterized by age inappropriate, impaired social communication and the presence of stereotypic behavior. This disorder is hypothesized to result from cerebral dysfunction arising from a complex interaction between genetic, epigenetic and environmental factors. ASD should be suspected in children failing ASD specific screening tests, in the presence of red flags in social, language and/or play domains, in children with developmental or language delay, abnormal behavior, poor school performance or in those who are at high risk. Comprehensive assessment comprises of a step-wise approach that includes taking a detailed history, performing a holistic examination and observing the child closely in relation to play, social interaction and behavior. Diagnosis is established by application of the diagnostic criteria for ASD of the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM V). The degree of severity, intellectual and language impairment and presence of other illnesses should be specified. Functional assessment identifies an individual's strengths and weaknesses. All these are important to formulate a customized intervention plan along with the family. The goal is to build up skills enabling optimal and as far as possible normal functioning while simultaneously reducing maladaptive behavior. This is achieved by a multi-disciplinary team comprising of various personnel experienced in tackling issues in ASD related to their respective areas of expertise. Intervention is primarily non-pharmacological, based on
behavioral modification strategies. Drugs are only indicated in the reduction of target symptoms refractory to behavioral intervention. Although there is no cure, timely and appropriate intervention can improve the quality of life significantly.

Database: Medline

Feeding Problems and Nutrient Intake in Children with and without Autism: A Comparative Study.

Author(s): Malhi, Prahbhjot; Venkatesh, Lolam; Bharti, Bhavneet; Singhi, Pratibha

Source: Indian journal of pediatrics; Apr 2017; vol. 84 (no. 4); p. 283-288

Abstract: OBJECTIVE To compare parent reported feeding difficulties and nutritional adequacy of children with Autism Spectrum Disorders (ASD) to an age and socio-economically matched group of typically developing children. METHODS The scores on Children's Eating Behavior Inventory (CEBI), three-day food records, anthropometric measures and adequacy of micro- and macro- nutrients were compared for 63 children diagnosed with ASD and 50 typically developing children enrolled from the department of pediatrics of a tertiary care teaching hospital from North India. RESULTS The majority (79%) of the parents of ASD children reported some concern regarding their feeding behavior as compared to 64% of the parents of typically developing children. As compared to controls, ASD children had significantly higher CEBI scores (97.28 vs. 89.48, t = 3.15, P = 0.002) and more feeding problems (6.42 vs. 2.70, t = 3.74, P = 0.001). Relative to controls, ASD children consumed fewer number of food items (P = 0.022), particularly fruits (P = 0.004), vegetables (P = 0.011), and proteins (P = 0.015); had significantly lower daily intake of potassium (P = 0.001), copper (P = 0.007), and folate (P = 0.001). Although children with autism did not differ significantly from controls on intake of calories, height, weight, or body mass index, significantly greater proportion of ASD children failed to meet the estimated average requirement of thiamine (P = 0.039), vitamin C (P = 0.013), and copper (P = 0.005). CONCLUSIONS The findings underscore the need for comprehensive assessment and empirically-supported interventions for eating problems and dietary deficiencies found in ASD children.

Database: Medline

May traffic air pollution be involved in autism spectrum disorder?

Author(s): Chirumbolo, Salvatore; Bjørklund, Geir; Urbina, Mauricio A

Source: Environmental research; Apr 2017; vol. 154 ; p. 57-59

Low-level visual attention and its relation to joint attention in autism spectrum disorder.

Author(s): Jaworski, Jessica L Bean; Eigest, Inge-Marie

Source: Child neuropsychology : a journal on normal and abnormal development in childhood and adolescence; Apr 2017; vol. 23 (no. 3); p. 316-331

Abstract: Visual attention is integral to social interaction and is a critical building block for development in other domains (e.g., language). Furthermore, atypical attention (especially joint attention) is one of the earliest markers of autism spectrum disorder (ASD). The current study assesses low-level visual attention and its relation to social attentional processing in youth with ASD and typically developing (TD) youth, aged 7 to 18 years. The findings indicate difficulty overriding incorrect attentional cues in ASD, particularly with non-social (arrow) cues relative to social (face) cues. The findings also show reduced competition in ASD from cues that remain on-screen. Furthermore, social attention, autism severity, and age were all predictors of competing cue processing. The results suggest that individuals with ASD may be biased towards speeded rather than accurate responding, and further, that reduced engagement with visual information may impede responses to visual attentional cues. Once attention is engaged, individuals with ASD appear to interpret directional cues as meaningful. These findings from a controlled, experimental paradigm were mirrored in results from an ecologically valid measure of social attention. Attentional difficulties may be exacerbated during the complex and dynamic experience of actual social interaction. Implications for intervention are discussed.
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Autism West Midlands Newsletter April 2017

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