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Assessing the complexity of adult ASD cases across three areas in Southern England: a service evaluation

Author(s) Raja A.S. Mukherjee, Minahil Nawaz, Terry Joseph
Advances in Autism Vol 4, Issue 1 (pp. 2 - 9)
http://www.emeraldinsight.com/toc/aia/4/1

A review of emergency department visits made by youth and adults with autism spectrum disorder from the parent perspective

Author(s) Yona Lunsky, Ami Tint, Jonathan A. Weiss, Anna Palucka, Elspeth Bradley
Advances in Autism Vol 4, Issue 1 (pp. 10 - 18)
http://www.emeraldinsight.com/toc/aia/4/1

Evidence of increased PTSD symptoms in autistics exposed to applied behavior analysis

Author(s) Henny Kupferstein
Advances in Autism Vol 4, Issue 1 (pp. 19 - 29)
http://www.emeraldinsight.com/toc/aia/4/1

Autism spectrum disorder and hate crime

Author(s) Eddie Chaplin, Samyukta Mukhopadhyay
Advances in Autism Vol 4, Issue 1 (pp. 30 - 36)
http://www.emeraldinsight.com/toc/aia/4/1

Enabling voice and participation in autism services: using practitioner research to develop inclusive practice

Authors: Long, Joseph; Panese, Joanna; Ferguson, Jill; Hamill, Margaret Anne; Miller, Jasmine
Good Autism Practice Vol 18 Issue 2 pp. 6-14(9)
http://www.ingentaconnect.com/content/bild/gap/2017/00000018/00000002;jsessionid=2c5c7kmomh1m4.x-ic-live-02

An exploration of the positive and negative experiences of teenage girls with autism attending mainstream secondary school

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Consulting young people with autism within a specialist Further Education college on their personal happiness

Author: Murray, Carly
*Good Autism Practice  Vol 18 Issue 2*

ACT for autism: enhancing the connection between teachers and autistic pupils

Author: Gurnett, Jane
*Good Autism Practice  Vol 18 Issue 2*

Narratives of adults with a learning disability and autism living within a secure forensic setting

Authors: Chan, Cindy; Thomson, Michaela; Eccles, Diane; Hanif, Salma
*Good Autism Practice  Vol 18 Issue 2*

Reflections on the first year of the Local Early Autism Programme (LEAP)

Author: Wilby, Laura
*Good Autism Practice  Vol 18 Issue 2*

An evaluation of the Attention Autism approach with young children with autism

Authors: Watson, Jan; Davies, Gina; Winterton, Alison
*Good Autism Practice  Vol 18 Issue 2*

The predictive value of the AQ-10 and AQ-50 in relation to diagnostic outcome in an Adult Autism Diagnostic Service

Authors: Walsh, Jessica; Crabtree, Jason
*Good Autism Practice  Vol 18 Issue 2*
Exploring depression and beating the blues. A CBT self-help guide to understanding and coping with depression in Asperger's Syndrome
Author: Bradley, Helen
Good Autism Practice  Vol 18 Issue 2
http://www.ingentaconnect.com/content/bild/gap/2017/00000018/00000002;jsessionid=2c5c7kmomh1m4.x-ic-live-02
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BBC2: Chris Packham, Asperger's and me
Author: Martin, Nicola
Good Autism Practice  Vol 18 Issue 2
http://www.ingentaconnect.com/content/bild/gap/2017/00000018/00000002;jsessionid=2c5c7kmomh1m4.x-ic-live-02
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Accredited courses on autism
Good Autism Practice  Vol 18 Issue 2
http://www.ingentaconnect.com/content/bild/gap/2017/00000018/00000002;jsessionid=2c5c7kmomh1m4.x-ic-live-02
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Challenges of listening to an autistic pupil in a person-centred planning meeting
Author(s): Barnard-Dadds, Tracey; Conn, Carmel
Source: Journal of Research in Special Educational Needs; Feb 2018 ; p. No
Abstract: A consensus is emerging on the need to use person-centred planning (PCP) as an approach to the identification of educational learning needs and goals for pupils with special needs, including those on the autism spectrum. The aim of this study was to analyse the interactions of participants in one PCP meeting, specifically the nature of participation of the focus pupil with autism and the way in which this was supported by staff members and parents. Conversation analysis was used to investigate interactional turns and the way in which social actions in the meeting unfolded. Findings are that, despite encouragement and prompting by adult participants, the contribution of the pupil with autism was minimal throughout, except for the mention of one potentially painful issue. The suitability of PCP meetings as a forum for the exploration of difficult issues is discussed and the issue of prior preparation for meetings by child and adult participants is raised with reference to the management of autism as a transactional disability.
Database: PsycINFO

Emotion-focused therapy for autism spectrum disorder: A case conceptualization model for trauma-related experiences
Author(s): Robinson, Anna
Source: Journal of Contemporary Psychotherapy; Feb 2018 ; p. No
Abstract: People with autism spectrum disorder (ASD) report painful experiences through emotional misunderstandings with typically developing peers. There are limited intervention methodologies for ASD on the impact of emotional injuries and how to work with resulting trauma. This paper presents a rational-empirical model of trauma-related experiences with the first presentation of a new case conceptualization model for emotion-focused therapy for ASD. It describes the transformation of problematic emotion schemes through a sequence of emotional processing steps illustrated with a case example. These steps include: overcoming differentiation of core painful feelings (such as loneliness, shame, and fear); autobiographical memory recall of distanced trauma, using a novel method of video Interpersonal Process Recall; and articulation of the unmet needs contained in core painful feelings. This is followed by the expression of an emotional response to those feelings/needs; typically, self-soothing, protective anger and compassion responses offered interpersonally by group members. These emerging adaptive emotions facilitate mentalization of self and other that strengthens intrapersonal and interpersonal agency. This rational-empirical case conceptualization acts as a hypothesis for testing in subsequent trials.
Database: PsycINFO

Prevalence of DSM-5 autism spectrum disorder among school-based children aged 3–12 years in Shanghai, China
Author(s): Jin, Zhijuan; Yang, You; Liu, Shijian; Huang, Hong; Jin, Xingming
Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No
Abstract: We estimated the prevalence of ASD in a population-based sample comprising children aged 3–12 years (N = 74,252) in Shanghai. This included a high-risk group sampled from special education schools and a low-risk group randomly sampled from general schools. First, we asked parents and then teachers to complete the Social Communication Questionnaire for participating children. Children who screened positive based on both parental and teachers’ reports were comprehensively assessed. ASD was identified based on DSM-5 criteria. We identified 711 children as being at-risk for ASD, of which 203 were identified as ASD cases. The prevalence of ASD was 8.3 per 10,000, which is likely an underestimate, given that 81.6% of the children diagnosed with ASD had IQs below 40. This is the first report on the prevalence of ASD according to DSM-5 in China.
Database: PsycINFO

Exploring the effectiveness of a peer-mediated model of the peers curriculum: A pilot randomized control trial

Author(s): Matthews, Nicole L.; Orr, Beatriz C.; Warriner, Katrina; DeCarlo, Mary; Sorensen, Mia; Laflin, Jessica; Smith, Christopher J.
Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No
Abstract: This study compared immediate and 4-month outcomes among adolescents with autism spectrum disorder randomly assigned to the PEERS curriculum (n = 10), a peer mediated PEERS curriculum (n = 12), or a delayed treatment control group (n = 12). Findings suggest a modest advantage in social skills knowledge and social functioning for participants in the peer-mediated PEERS curriculum relative to Traditional PEERS, and gains in social skills knowledge, social functioning, and reductions in loneliness were maintained in one or both treatment groups at a 4-month follow-up. Typically developing peer mentors (n = 16) showed improvements in social skills knowledge and marginal improvements in autism knowledge and loneliness. Future research with a larger sample and objective outcome measures is needed.
Database: PsycINFO

Brief report: When large becomes slow: Zooming-out visual attention is associated to orienting deficits in autism

Author(s): Ronconi, Luca; Devita, Maria; Molteni, Massimo; Gori, Simone; Facoetti, Andrea
Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No
Abstract: Previous studies independently demonstrated impairments in rapid orienting/disengagement and zooming-out of spatial attention in autism spectrum disorder (ASD). These attentional mechanisms, however, are not completely independent. Aiming at a more complete picture of spatial attention deficits in ASD, we examined the relationship between orienting and zooming in participants with ASD and typically developing peers. We modified a classical spatial cuing task, presenting two small or large cues in the two visual hemifields and subsequently cuing attention to one of them. Our results demonstrate a sluggish orienting mechanism in ASD only when a large attentional focus is deployed. Moreover, only the sluggish orienting mechanism in the large cues condition predicts the severity in the social-interaction symptomatology in individuals with ASD.
Database: PsycINFO

Using peer-mediated lego® play intervention to improve social interactions for chinese children with autism in an inclusive setting

Author(s): Hu, Xiaoyi; Zheng, Qunshan; Lee, Gabrielle T.
Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No
Abstract: The purpose of this study was to examine the effects of a peer-mediated LEGO® play intervention on improving social skills for children with ASD in an inclusive preschool in China. Three boys with ASD and 13 typically developing children participated in this study. A multiple-probe across participants design was used. The intervention consisted of LEGO® construction activities incorporated with peer-mediated strategies for one child with ASD and two typically developing peers. The intervention sessions were conducted two sessions per week with a total of 28–31 sessions for each participant. Results indicated that all three children with ASD increased their social initiations and responses following the completion of the intervention. Social validity was also obtained.
Database: PsycINFO
Brief report: Reliability of the participation and sensory environment questionnaire: Home scales

Author(s): Pfeiffer, Beth; Piller, Aimee; Slugg, Laura; Shiu, Chengshi

Source: Journal of Autism and Developmental Disorders; Feb 2018; p. No

Abstract: The Participation and Sensory Environment Questionnaire: Home Scales (P–SEQ): Home Scales is a parent report tool designed to assess the impact of the sensory environment on participation in daily activities in the home of children with and without autism spectrum disorder. A cross-sectional study was completed to determine internal consistency, test–retest reliability, and examine item distribution. A total of 304 parents of children between the ages of 2 and 7 years of age completed the P–SEQ: Home Scales. Results identified excellent internal consistency (α = 0.96), moderate test–retest reliability (r = .62), and reasonable item distribution. Results suggest that the P–SEQ: Home Scales provides reliable estimates of the impact of the sensory environment on children’s participation in home activities.

Database: PsycINFO

Prediction of autism at 3 years from behavioural and developmental measures in high-risk infants: A longitudinal cross-domain classifier analysis

Author(s): Bussu, G.; Jones, E. J. H.; Charman, T.; Johnson, M. H.; Buitelaar, J. K.

Source: Journal of Autism and Developmental Disorders; Feb 2018; p. No

Abstract: We integrated multiple behavioural and developmental measures from multiple time-points using machine learning to improve early prediction of individual Autism Spectrum Disorder (ASD) outcome. We examined Mullen Scales of Early Learning, Vineland Adaptive Behavior Scales, and early ASD symptoms between 8 and 36 months in high-risk siblings (HR; n = 161) and low-risk controls (LR; n = 71). Longitudinally, LR and HR-Typical showed higher developmental level and functioning, and fewer ASD symptoms than HR-Atypical and HR-ASD. At 8 months, machine learning classified HR-ASD at chance level, and broader atypical development with 69.2% Area Under the Curve (AUC). At 14 months, ASD and broader atypical development were classified with approximately 71% AUC. Thus, prediction of ASD was only possible with moderate accuracy at 14 months.

Database: PsycINFO

Family experiences with the diagnosis of autism spectrum disorder: System barriers and facilitators of efficient diagnosis

Author(s): Martinez, M.; Thomas, K. C.; Williams, C. S.; Christian, R.; Crais, E.; Pretzel, R.; Hooper, S. R.

Source: Journal of Autism and Developmental Disorders; Feb 2018; p. No

Abstract: This paper examines family experiences with the efficiency of ASD diagnosis. Children were age 8 or younger with ASD (n = 450). Outcomes were delay from first parent concern to diagnosis, shifting diagnoses, and being told child did not have ASD. Predictors were screening, travel distance, and problems finding providers. Logit models were used to examine associations. Screening was associated with reduced delay in diagnosis; problems finding providers were associated with greater delay. Screening, travel distance, and delay in diagnosis were associated with shifting diagnoses and being told child did not have ASD. Physician and parent training in communication and addressing mental health professional shortages and maldistribution may improve the diagnosis experiences of families of children with ASD.

Database: PsycINFO

Characterizing health disparities in the age of autism diagnosis in a study of 8-year-old children

Author(s): Parikh, Chandni; Kurzius-Spencer, Margaret; Mastergeorge, Ann M.; Pettygrove, Sydney

Source: Journal of Autism and Developmental Disorders; Feb 2018; p. No

Abstract: The diagnosis of autism spectrum disorder (ASD) is often delayed from the time of noted concerns to the actual diagnosis. The current study used child- and family-level factors to identify homogeneous classes in a surveillance-based sample (n = 2303) of 8-year-old children with ASD. Using latent class analysis, a 5-class model emerged and the class memberships were examined in relation to the child’s median age at ASD diagnosis. Class 3, with known language delays and a high advantage socioeconomically had the lowest age of ASD diagnosis (46.74 months) in comparison to Classes 1 (64.99 months), 4 (58.14 months), and 5 (69.78 months) in this sample. Findings demonstrate sociodemographic and developmental disparities related to the age at ASD diagnosis.

Database: PsycINFO
Prevention and management of obesity in children with autism spectrum disorder among primary care pediatricians

Author(s): Walls, Morgan; Broder-Fingert, Sarabeth; Feinberg, Emily; Drainoni, Mari-Lynn; Bair-Merritt, Megan

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Children with autism spectrum disorder (ASD) are at high risk for being overweight and obese. Little is known about how obesity in children with ASD is being addressed in primary care. This article reports findings from a survey completed by 327 general pediatricians, which included a fictional clinical vignette and Likert-scales assessing attitudes, practices, self-efficacy, and barriers to obesity management. Although the majority of respondents agreed pediatricians should be the main providers to manage obesity in children with ASD, few reported receiving adequate training to do so. Pediatricians were more likely to refer to developmental-behavioral pediatricians and dietitians for a child with ASD compared to a child without ASD. Higher self-efficacy was associated with increased weight-related counseling frequency by pediatricians.

Database: PsycINFO

Associations between the 2nd to 4th digit ratio and autism spectrum disorder in population-based samples of boys and girls: Findings from the study to explore early development

Author(s): Schieve, Laura A.; Tian, Lin; Dowling, Nicole; Croen, Lisa; Hoover-Fong, Julie; Alexander, Aimee; Shapira, Stuart K.

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: The ratio of the index (2nd) finger to ring (4th) finger lengths (2D:4D) is a proxy for fetal testosterone and estradiol. Studies suggesting 2D:4D is inversely associated with autism spectrum disorder (ASD) in males were limited by lack of confounder and subgroup assessments. Studies of females are sparse. We examined associations between ASD and 2D:4D among children in the Study to Explore Early Development; we considered case subgroups and numerous potential demographic and maternal-perinatal health confounders. We observed a modest inverse association between ASD and right-hand 2D:4D in males; subgroup analyses indicated associations were limited to ASD cases with birth defects/genetic syndromes or dysmorphic features. We observed a positive association between ASD and left-hand 2D:4D in females, overall and within most case subgroups.

Database: PsycINFO

Allied health professionals’ knowledge and use of asd intervention practices

Author(s): Paynter, Jessica; Sulek, Rhylee; Luskin–Saxby, Sarah; Trembath, David; Keen, Deb

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Allied health professionals (AHPs) are trusted sources of information and intervention for clients with autism spectrum disorder. However, the level of implementation of empirically-supported therapies and the accuracy of the knowledge they use to inform intervention selection is largely unknown. The present study explored the accuracy of AHPs’ knowledge and use of practices, and explored links to individual attitudes and organisational culture. Overall results from the 156 AHPs surveyed suggested general accuracy of knowledge, and use of empirically supported treatments, with accuracy linked to use. Use of practices unsupported by research was linked to organisational culture and openness to new interventions. The presence of misinformation and the impact on selection and use of effective practices are discussed.

Database: PsycINFO

Overlapping and distinct cognitive impairments in attention-deficit/hyperactivity and autism spectrum disorder without intellectual disability

Author(s): Karalunas, Sarah L.; Hawkey, Elizabeth; Gustafsson, Hanna; Miller, Meghan; Langhorst, Marybeth; Cordova, Michaela; Fair, Damien; Nigg, Joel T.

Source: Journal of Abnormal Child Psychology; Feb 2018 ; p. No

Abstract: Attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) are commonly comorbid, share genetic liability, and often exhibit overlapping cognitive impairments. Clarification of shared and distinct cognitive effects while considering comorbid symptoms across disorders has been lacking. In the current study, children ages 7–15 years assigned to three diagnostic groups: ADHD (n = 509), ASD (n = 97), and controls (n = 301) completed measures spanning the cognitive domains of attention/arousal, working memory, set-shifting, inhibition, and response variability. Specific processes
contributing to response variability were examined using a drift diffusion model, which separately quantified drift rate (i.e., efficiency of information processing), boundary separation (i.e., speed-accuracy trade-offs), and non-decision time. Children with ADHD and ASD were impaired on attention/arousal, processing speed, working memory, and response inhibition, but did not differ from controls on measures of delayed reward discounting, set-shifting, or interference control. Overall, impairments in the ASD group were not attributable to ADHD symptoms using either continuous symptom measures or latent categorical grouping approaches. Similarly, impairments in the ADHD group were not attributable to ASD symptoms. When specific RT parameters were considered, children with ADHD and ASD shared impairments in drift rate. However, children with ASD were uniquely characterized by a wider boundary separation. Findings suggest a combination of overlapping and unique patterns of cognitive impairment for children with ASD as compared to those with ADHD, particularly when the processes underlying reaction time measures are considered separately.

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**Early motor signs of autism spectrum disorder in spontaneous position and movement of the head**

Author(s): Gima, Hirotaka; Kihara, Hideki; Watanabe, Hama; Nakano, Hisako; Nakano, Junji; Konishi, Yukuo; Nakamura, Tomohiko; Taga, Gentaro

Source: *Experimental Brain Research; Feb 2018*; p. No

Abstract: We examined the characteristics of spontaneous movements at 9–20 weeks postterm age in very low birth-weight infants who later developed autism spectrum disorder (ASD). We analyzed video recordings of spontaneous movements of 39 children who had no clinical issues [typically developing (TD) group], 21 children who showed developmental delay, and 14 children who were diagnosed with ASD (ASD group) at 6 years of age. Head position in each video frame was classified by visual inspection. The percentage of midline head position (PMHP) and number of changes in head position were calculated. Spontaneous limb movements were quantified using six indices. The values of PMHP were significantly lower in the ASD group than in the TD group. The lower PMHP during early infancy is associated with later development of ASD. Poorer performance in maintaining midline position of the head at this period may distinguish infants who later develop ASD from those who show TD.

Database: PsycINFO

**Speech perception in autism spectrum disorder: An activation likelihood estimation meta-analysis**

Author(s): Tryfon, Ana; Foster, Nicholas E. V.; Sharda, Megha; Hyde, Krista L.

Source: *Behavioural Brain Research; Feb 2018; vol. 338*; p. 118-127

Abstract: Autism spectrum disorder (ASD) is often characterized by atypical language profiles and auditory and speech processing. These can contribute to aberrant language and social communication skills in ASD. The study of the neural basis of speech perception in ASD can serve as a potential neurobiological marker of ASD early on, but mixed results across studies renders it difficult to find a reliable neural characterization of speech processing in ASD. To this aim, the present study examined the functional neural basis of speech perception in ASD versus typical development (TD) using an activation likelihood estimation (ALE) meta-analysis of 18 qualifying studies. The present study included separate analyses for TD and ASD, which allowed us to examine patterns of within-group brain activation as well as both common and distinct patterns of brain activation across the ASD and TD groups. Overall, ASD and TD showed mostly common brain activation of speech processing in bilateral superior temporal gyrus (STG) and left inferior frontal gyrus (IFG). However, the results revealed trends for some distinct activation in the TD group showing additional activation in higher-order brain areas including left superior frontal gyrus (SFG), left medial frontal gyrus (MFG), and right IFG. These results provide a more reliable neural characterization of speech processing in ASD relative to previous single neuroimaging studies and motivate future work to investigate how these brain signatures relate to behavioral measures of speech processing in ASD.

Database: PsycINFO

**Differential vocational rehabilitation service patterns and outcomes for transition-age youth with autism**

Author(s): Kaya, Cahit; Hanley-Maxwell, Cheryl; Chan, Fong; Tansey, Timothy

Source: *Journal of Applied Research in Intellectual Disabilities; Feb 2018*; p. No
Abstract: Background It is important to investigate receipt of vocational rehabilitation (VR) services, service patterns and outcomes for youth with autism, so that limited public resources can be used more efficiently. Method This study used chi-squared automatic interaction detector, and multivariate logistic regression analysis to investigate relationships between demographic variables, receipt of VR services and employment outcomes for transition-age youth (TAY) with Autism. Results The results indicate that gender, education level and cash benefits are significant predictors of employment outcomes. After controlling for the effect of demographic variables, several VR services (i.e., job placement, on-the-job support, on-the-job training, maintenance, other services, information referral, and diagnostic and treatment services) were significantly associated with competitive employment. Conclusions Overall, the results indicate that job-related services were significantly related to employment outcomes for TAY with Autism; therefore, it is important these youths are provided with more targeted job placements and supported employment services.

Database: PsycINFO

Proneness to guilt, shame, and pride in children with autism spectrum disorders and neurotypical children

Author(s): Davidson, Denise; Hilvert, Elizabeth; Misiunaite, Ieva; Giordano, Michael

Source: Autism Research; Feb 2018 ; p. No

Abstract: Self-conscious emotions (e.g., guilt, shame, and pride) are complex emotions that require self-reflection and self-evaluation, and are thought to facilitate the maintenance of societal norms and personal standards. Despite the importance of self-conscious emotions, most research has focused on basic emotion processing in children with Autism Spectrum Disorders (ASD). Therefore, in the present study, we used the Test of Self-Conscious Affect for Children (TOSCA-C) to assess proneness to, or propensity to experience, the self-conscious emotions guilt, shame, and pride in children with ASD and neurotypical children. The TOSCA-C is designed to capture a child's natural tendency to experience a given emotion across a range of everyday situations [Tangney, Stuewig, & Mashek, 2007]. We also assessed how individual characteristics contribute to the development of proneness to self-conscious emotions, including theory of mind (ToM) and ASD symptomatology. In comparison to neurotypical children, children with ASD showed less proneness to guilt, although all children showed relatively high levels of proneness to guilt. Greater ToM ability was related to more proneness to guilt and authentic pride in children with ASD. Additionally, we found that children with ASD with more severe symptomatology were more prone to hubristic pride. Our results provide evidence of differences in proneness to self-conscious emotions in children with ASD, as well as highlight important mechanisms contributing to how children with ASD may experience self-conscious emotions. Autism Res 2017,4. ©2017 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary This research examined proneness to guilt, shame, and pride in children with Autism Spectrum Disorders (ASD) and neurotypical children. We found that children with ASD showed less proneness to guilt than neurotypical children. Better understanding of theory of mind was related to greater proneness to guilt and pride, but only for children with ASD. These findings are important because these complex emotions are linked with both positive and negative social behaviors towards others and oneself.

Database: PsycINFO

Brief report: Self-injurious behaviors in preschool children with autism spectrum disorder compared to other developmental delays and disorders

Author(s): Soke, G. N.; Rosenberg, S. A.; Rosenberg, C. R.; Vasa, R. A.; Lee, L.-C.; DiGuiseppi, C.

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: We compared the prevalence of self-injurious behaviors (SIB) in preschoolers aged 30–68 months with autism spectrum disorder (ASD) (n = 691) versus other developmental delays and disorders (DD) (n = 977) accounting for sociodemographic, cognitive, and medical factors. SIB prevalence was higher in ASD versus all DD [adjusted odds-ratio (aOR) 2.13 (95% confidence interval (95% CI) 1.53, 2.97)]. In subgroup analyses, SIB prevalence was higher in ASD versus DD without ASD symptoms [aOR 4.42 (95% CI 2.66, 7.33)], but was similar between ASD and DD with ASD symptoms [aOR 1.09 (95% CI 0.68, 1.77)]. We confirmed higher prevalence of SIB in ASD versus DD, independent of confounders. In children with DD, SIB prevalence increased with more ASD symptoms. These findings are informative to clinicians, researchers, and policymakers.
Abstract: Forty-one high-risk infants (HR) with an older sibling with autism spectrum disorder (ASD) were observed longitudinally at 10, 12, 18 and 24 months of age during a tool use task in a play-like scenario. Changes in grasp types and functional actions produced with a spoon were assessed during elicited tool use. Outcome and vocabulary measures were available at 36 months, distinguishing: 11 HR-ASD, 15 HR-language delay and 15 HR-no delay. Fewer HR-ASD infants produced grasp types facilitating spoon use at 24 months and functional actions at 10 months than HR-no delay. Production of functional actions in HR infants at 10 months predicted word comprehension at 12 months and word production at 24 and 36 months.

A pilot study of high-dose intravenous immunoglobulin 5% for autism: Impact on autism spectrum and markers of neuroinflammation

Abstract: Research has shown that a subset of the autism spectrum disorder (ASD) population presents with immune dysregulation. To explore this topic further, we investigated the efficacy and tolerability of intravenous immunoglobulin (IVIG) infusion in children with ASD. In this study, participants were recruited based on a diagnosis of autistic disorder, Asperger’s disorder, or pervasive developmental disorder not otherwise specified. Participants also showed evidence of immune dysfunction based on abnormal levels of specific biomarkers, including CD40 ligand (CD154), lymphocyte stimulation, and T or B cell dysfunction. Of 17 screened patients, 14 completed the trial and received IVIG treatment (1 g/kg dose) for ten 21-day treatment cycles. The primary endpoint was disease improvement assessed using standardized cognitive and behavioral tests (Children’s Communication Checklist [CCC-2], Social Responsiveness Scale [SRS], Aberrant Behavior Checklist [ABC], Clinical Global Impressions-Severity [CGI-S] and -Improvement [CGI-I], Autism Diagnostic Observation Schedule [ADOS], and Peabody Picture Vocabulary Test [PPVT]). Secondary endpoints included experimental biomarkers such as CD154, toll-like receptor-4, memory B cells, FOXP3, and lymphocyte stimulation. Significant improvements from baseline to study endpoint were observed in several subscales of the CCC-2, SRS, CGI-I, CGI-S, and ADOS, including Associated Maladaptive Behaviors (P ≤ .043), Reciprocal Social Interaction (P = .015), Communication (P < .001), and Stereotyped Behaviors and Repetitive Interests (P ≤ .013). Statistically significant reductions were also seen in numerous secondary outcomes of immunological biomarkers indicative of neuroinflammation. IVIG was well tolerated; no subjects withdrew due to an adverse event, and clinical data showed no evidence of thromboembolic events. Autism Res 2018. © 2018 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary Since research has demonstrated a link between autism spectrum disorder (ASD) and immune dysfunction, this study investigated the efficacy and tolerability of intravenous immunoglobulin (IVIG) infusion in children with ASD. Fourteen patients received IVIG treatment and were assessed using standardized cognitive and behavioral tests. Following treatment with IVIG, significant improvement was observed across several subscales of the clinical tests and significant reductions were seen in the markers of neuroinflammation. These data suggest that inflammatory etiologies may play a role in select cases of autism, and IVIG treatment may exert a positive impact on behaviors and markers of inflammation in ASD.

Special interests and subjective wellbeing in autistic adults

Abstract: Special interests form part of the core features of autism. However, to date there has been limited research focusing on the role of special interests in the lives of autistic adults. This study surveyed autistic adults on their special interest topics, intensity, and motivation. It also assessed the relationship between special interests and a range of quality of life measures including subjective wellbeing and domain specific life satisfaction. About two thirds of the sample reported having a special interest, with relatively more males reporting a special interest than females. Special interest topics included computers, autism, music, nature and gardening. Most autistic adults engaged in more than one special interest, highlighting that these interests may not be as narrow as previously described. There were no differences in subjective
wellbeing between autistic adults with and without special interests. However, for autistic adults who did have special interests, motivation for engaging in special interests was associated with increased subjective wellbeing. This indicates that motivation may play an important role in our understanding of special interests in autism. Special interests had a positive impact on autistic adults and were associated with higher subjective wellbeing and satisfaction across specific life domains including social contact and leisure. However, a very high intensity of engagement with special interests was negatively related to wellbeing. Combined, these findings have important implications for the role of special interests in the lives of autistic adults. Autism Res 2018. © 2018 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary Autistic adults reported having special interests in a range of topics, including computers, music, autism, nature and gardening. Special interests were associated with a number of positive outcomes for autistic adults. They were also related to subjective wellbeing and satisfaction across specific life domains including social contact and leisure. Very high intensity of engagement with special interests was related to lower levels of wellbeing. This highlights the important role that special interests play in the lives of autistic adults.

Database: PsycINFO

The impact on the family of the co-existing conditions of children with autism spectrum disorder

Author(s): Petrou, Alexandra M.; Soul, Abigail; Koshy, Beena; McConachie, Helen; Parr, Jeremy R.

Source: Autism Research; Feb 2018 ; p. No

Abstract: We aimed to investigate whether the impact on families of children with Autism Spectrum Disorder (ASD) is associated with the number and/or type of emotional and behavioral co-existing conditions that parents/carers of children with ASD reported as occurring frequently. In addition, we examined whether there was a greater impact on families if their child was male, had lower levels of language, had more severe autism symptomatology, and whether impact was associated with the number and/or type of co-existing conditions. Families were recruited from large UK research databases. 420 parents/carers of children aged 3 years 2 months to 18 years 8 months completed the revised Impact on Family (IoF) Scale and reported on the frequency/rate of their child's co-existing conditions. Parents/carers reported higher mean IoF scores if their child: had a greater number of frequent co-existing conditions; had sleep problems; was only able to communicate physically; and had more severe autism symptomatology. The development and implementation of targeted treatment and management approaches are needed to reduce the impact of co-existing conditions on family life. Autism Res 2018. © 2018 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary Autism Spectrum Disorder (ASD) is commonly associated with emotional and/or behavior conditions that affect family life. Parents/carers of children with ASD who: (a) reported a greater number of frequent co-existing conditions, (b) had sleep problems, (c) were only able to communicate physically, and (d) had more severe symptoms characteristic of autism, reported a greater burden/strain on the family. Treatment approaches to target co-existing conditions alongside characteristics of ASD are needed to reduce their impact on family life.

Database: PsycINFO

School dysfunction in youth with autistic spectrum disorder in taiwan: The effect of subtype and adhd

Author(s): Chiang, Huey-Ling; Kao, Wei-Chih; Chou, Mei-Chun; Chou, Wen-June; Chiu, Yen-Nan; Wu, Yu-Yu; Gau, Susan Shur-Fen

Source: Autism Research; Feb 2018 ; p. No

Abstract: School dysfunction is observed in youths with autism spectrum disorder (ASD), but the factors moderating their school dysfunction have not been well explored. This study investigated school functions in youths with ASD in Taiwan, stratified by personal characteristics including demographics, ASD subtypes, intelligence profiles, and the presence of attention-deficit hyperactivity disorder (ADHD). We recruited 160 youths (aged 6–18 years, 87.5% boys) with a clinical diagnosis of ASD and 160 age and gender-matched typically developing (TD) youths. Their parents received a semi-structured psychiatric interview for their ASD and ADHD diagnoses and reported their school functions. Youths with ASD were further grouped into low-functioning autism (LFA, ASD with intellectual disability and developmental language delay, n = 44), high-functioning autism (HFA, ASD with no intellectual disability, n = 55) and Asperger's syndrome (AS, ASD with neither language delay nor intellectual disability, n = 61). Compared to TD, ASD had worse school functions in the domains of academic performance, attitude toward schoolwork, social interaction, and behavioral problems except for no academic differences from TD in HFA and ASD without ADHD. Subgroup analysis revealed that HFA and AS had better academic performance but showed worse attitude toward school than LFA. Comorbidity of ADHD negatively impacted all domains of school functions.
Besides autistic and ADHD symptoms, oppositional symptoms, lower intelligence, older age, and female gender in youths also predicted school dysfunction. Although youths with ASD have school dysfunction in several domains, this study specifically addresses the role of intelligence and comorbid ADHD on their school dysfunction. Lay Summary Impaired school functions varied in ASD youths with different characteristics. Youths with autism spectrum disorder (ASD) encounter varying levels and domains of impaired performance at schools, such as lower academic performance, negative attitude toward school work, fewer reciprocal friendships, and more behavioral problems. Our results indicate that ASD youths without intellectual disability had better academic performance, but worse attitude toward school than those with intellectual disability. Co-occurrence with ADHD is associated with school dysfunction. In summary, intelligence and comorbid ADHD influences several domains of school functions.

Database: PsycINFO

Outcomes for design and learning when teenagers with autism codesign a serious game: A pilot study

Author(s): Bossavit, B.; Parsons, S.

Source: Journal of Computer Assisted Learning; Feb 2018 ; p. No

Abstract: Digital educational games research tends to lack ecological validity by not adequately taking into account the views and perspectives of children and young people with autism spectrum disorders (ASD). This paper is a pilot study that explores and analyses an academic-based educational game that was co-designed with and for young people with ASD. The serious game aims to help the players learn Geography-specific knowledge and integrates several strategic features so that users can collaborate together against the computer or compete against each other. The educational game was evaluated over 5 sessions by 3 peer teams from 2 different special educational institutions, involving a total of 6 students with ASD. The participants were positive about their enjoyment, motivation, and social engagement. The results showed that the players' level of competitiveness not only influenced the experience within the game but also the interaction within the peer teams. The game mechanisms did help the participants with ASD increase their knowledge in Geography content. The main conclusion is that there are considerable benefits of including children with ASD in the design process and future research should explore more fully on how their involvement can enhance curriculum-based learning as well as social engagement within the classroom.

Database: PsycINFO

Associations between emotion regulation and social impairment in children and adolescents with autism spectrum disorder

Author(s): Goldsmith, Samantha F.; Kelley, Elizabeth

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: In typically-developing (TD) individuals, effective emotion regulation strategies have been associated with positive outcomes in various areas, including social functioning. Although impaired social functioning is a core criterion of Autism Spectrum Disorder (ASD), the role of emotion regulation ability in ASD has been largely ignored. This study investigated the association between emotion regulation and ASD symptomatology, with a specific emphasis on social impairment. We used parent-report questionnaires to assess the regulatory strategies and symptom severity of 145 youth with ASD. Results showed that: (1) more effective emotion regulation, defined by greater use of reappraisal, predicted less severe ASD symptomatology, and (2) greater use of reappraisal predicted less severe social impairment. Suppression was not predictive of general symptomatology or social functioning.

Database: PsycINFO

The co-occurrence of gender dysphoria and autism spectrum disorder in adults: An analysis of cross-sectional and clinical chart data

Author(s): Heylens, Gunter; Aspeslagh, Lore; Dierickx, Jesper; Baetens, Kariann; Van Hoorde, Birgit; De Cuypere, Griet; Elaut, Els

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Quantitative studies indicate an overrepresentation of ASD in individuals with GD. This study aims to determine the prevalence of autistic traits or ASD in adults with GD using two different data collection methods: (1) cross-sectional data using the social responsiveness scale-adults (SRS-A) and the autism quotient (AQ) (n = 63). (2) Clinical chart data (n = 532). Mean SRS-A scores were significantly higher compared to a norm population. Almost 5% of the patients with GD scored above the cut-off as measured by the AQ. In 32 patients (6%), a certain ASD diagnosis was found in the patient files, which is
sixfold higher compared to the general population. Significantly more "birth assigned male" were affected compared to "birth assigned female".

**Database:** PsycINFO

**Using teacher ratings to investigate developmental regression as a potential indicator of school-age symptoms in students with autism spectrum disorder**

**Author(s):** Mire, Sarah S.; Anderson, Jacqueline R.; Manis, Jamie K.; Hughes, K. R.; Raff, Natalie S.; Goin-Kochel, Robin P.

**Source:** School Mental Health; Feb 2018 ; p. No

**Abstract:** Among individuals with autism spectrum disorder (ASD) who have a history of parent-reported developmental regression, or early skill loss, little is known about core-ASD symptoms (i.e., social communication, restricted/repetitive behaviors) and emotional/behavioral (E/B) symptoms during the school-age years. Study aims were to investigate whether early skill loss (i.e., ≤ 36 months old) was an indicator of heightened risk for later, school-based emotional and behavioral difficulties during the school-age years. Differences in teacher ratings for students with ASD from various age ranges (early elementary, late elementary/middle school, high school), with and without parent-reported developmental regression, were examined. Data were analyzed from teacher ratings for students with ASD (n = 951) on the Social Responsiveness Scale (SRS) and ASEBA Teacher Rating Form (TRF). Students’ families were participants in the multi-site Simons Simplex Collection (SSC), and students had study-confirmed clinical diagnoses of ASD. Overall, ANCOVA indicated few significant effects of developmental regression on teacher ratings of core-ASD symptoms or on ratings of internalizing or externalizing behavior problems, even when controlling for cognitive ability. These results, based on the perspective of teachers who are unaware of (i.e., “blinded” to) child regression status, were surprising yet suggest that early skill loss may not be an indicator of greater risk for some difficulties during the school-age years. Future work is needed to further investigate long-term outcomes among those with ASD who had an early skill loss, and teachers offer unique and important perspectives that may enhance future research in this area.

**Database:** PsycINFO

**Brief report: Social functioning predicts externalizing problem behaviors in autism spectrum disorder**

**Author(s):** Shea, N.; Payne, E.; Russo, N.

**Source:** Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

**Abstract:** Individuals with ASD often display externalizing behaviors, which have been associated with lower quality of life in adulthood. Social difficulties have been hypothesized to underlie externalizing problems among individuals with ASD (Klin and Volkmar in Asperger Syndrome, 340–366, 2000), but this has never been tested empirically. We examined whether socialization abilities predicted externalizing problems assessed by parent report in a group of 29 individuals with ASD (age range 7–16 years) and 29 TD individuals matched for IQ, age, and gender. Socialization scores accounted for 50% of the variance in externalizing behaviors among individuals with ASD, but not in TD children. These findings have implications for intervention, and suggest that targeting social difficulties might provide a better means to addressing externalizing problems.

**Database:** PsycINFO

**Identification of symptoms of autism spectrum disorders in the second year of life at day-care centres by day-care staff: Step one in the development of a short observation list**

**Author(s):** Larsen, Kenneth; Aasland, Astrid; Diseth, Trond H.

**Source:** Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

**Abstract:** Early symptoms of ASD develop through the second year of life, making a stable ASD diagnosis possible at 24 months of age. However, in general, children with ASD have their diagnosis at an older age. This retrospective study, including 30 children with ASD and 30 control children aged 3–6 years, explored the possibility of developing a short observation list to be used in day care settings for children 12–24 months of age. From 73 symptoms selected from published screeners and observation tools, we were able to construct a list of six symptoms that retrospectively differentiated children with ASD from typically developing children at 12–24 months of age when recalled by day-care personnel.

**Database:** PsycINFO

**Sex-differences in children referred for assessment: An exploratory analysis of the autism mental status exam (amse)**
**Author(s):** Øien, Roald A.; Vambheim, Sara M.; Hart, Logan; Nordahl-Hansen, Anders; Erickson, Craig; Wink, Logan; Eisemann, Martin R.; Shic, Frederick; Volkmar, Fred R.; Grodberg, David

**Source:** Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

**Abstract:** The autism mental status exam is an eight-item observational assessment that structures the way we observe and document signs and symptoms of ASD. Investigations of test performance indicate strong sensitivity and specificity using gold-standard assessment as reference standard. This study aims to explore potential sex differences in AMSE test performance and observations of 123 children referred for autism assessment. Results indicates more language deficits in females with ASD than in males with ASD and less sensory symptoms in females compared to males with ASD. The AMSE performance is similar in identifying ASD and non-ASD in females compared to males. Less disruptive behaviors in females, might cause a need for a bigger hit to other areas of development to raise concern.

**Database:** PsycINFO

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**The prevalence and psychopathological correlates of sibling bullying in children with and without autism spectrum disorder**

**Author(s):** Toseeb, Umar; McChesney, Gillian; Wolke, Dieter

**Source:** Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

**Abstract:** Using data from a prospective population based study, the prevalence and psychopathological correlates of sibling bullying in children with and without autism spectrum disorder (ASD) were estimated. There were 475 children with ASD and 13,702 children without ASD aged 11 years. Children with ASD were more likely to be bullied by their siblings compared to those without ASD. They were also more likely than those without ASD to both bully and be bullied by their siblings, which was associated with lower prosocial skills as well as more internalizing and externalizing problems compared to those not involved in any sibling bullying. Interventions to improve social and emotional outcomes in children with ASD should focus on both the affected and the unaffected sibling.

**Database:** PsycINFO

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**An international clinical study of ability and disability in autism spectrum disorder using the who-icf framework**

**Author(s):** Mahdi, Soheil; Albertowski, Katja; Almodayfer, Omar; Arsenopoulou, Vaia; Carucci, Sara; Dias, José Carlos; Khalil, Mohammed; Knüppel, Anet; Langmann, Anika; Lauritsen, Marlene Brict; Cunha, Gracielle Rodrigues; Uchiyama, Tokio; Wolff, Nicole; Selb, Melissa; Granlund, Mats; Vries, Petrus J.; Zwaigenbaum, Lonnie; Bölte, Sven

**Source:** Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

**Abstract:** This is the fourth international preparatory study designed to develop International Classification of Functioning, Disability and Health (ICF, and Children and Youth version, ICF-CY) Core Sets for Autism Spectrum Disorder (ASD). Examine functioning of individuals diagnosed with ASD as documented by the ICF-CY in a variety of clinical settings. A cross-sectional study was conducted, involving 11 units from 10 countries. Clinical investigators assessed functioning of 122 individuals with ASD using the ICF-CY checklist. In total, 139 ICF-CY categories were identified: 64 activities and participation, 40 body functions and 35 environmental factors. The study results reinforce the heterogeneity of ASD, as evidenced by the many functional and contextual domains impacting on ASD from a clinical perspective.

**Database:** PsycINFO

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**Autism spectrum disorder in an unselected cohort of children with neurofibromatosis type 1 (nf1)**

**Author(s):** Eijk, S.; Mous, S. E.; Dieleman, G. C.; Dierckx, B.; Rietman, A. B.; Nijs, P. F. A.; Hoopen, L. W.; Minkelen, R.; Elgersma, Y.; Catsman-Berrevoets, C. E.; Oostenbrink, R.; Legerstee, J. S.

**Source:** Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

**Abstract:** In a non-selected sample of children with Neurofibromatosis type 1 (NF1) the prevalence rate of autism spectrum disorder (ASD) and predictive value of an observational (ADOS)—and questionnaire-based screening instrument were assessed. Complete data was available for 128 children. The prevalence rate for clinical ASD was 10.9%, which is clearly higher than in the general population. This prevalence rate is presumably more accurate than in previous studies that examined children with NF1 with an ASD presumption or solely based on screening instruments. The combined observational- and screening based classifications demonstrated the highest positive predictive value for DSM-IV diagnosis, highlighting the importance of using both instruments in children with NF1.
Maternal and family processes in different subgroups of youth with autism spectrum disorder

Author(s): Chang, Jane Pei-Chen; Lai, Meng-Chuan; Chou, Miao-Chun; Shang, Chi-Yung; Chiu, Yen-Nan; Tsai, Wen-Che; Wu, Yu-Yu; Gau, Susan Shur-Fen

Source: Journal of Abnormal Child Psychology; Feb 2018 ; p. No

Abstract: We compared the maternal reports on mothering and family processes between 160 youth with autism spectrum disorder (ASD) and 160 age and gender-matched typically developing (TD) youth stratified by personal characteristics from Taiwan. The ASD groups consisted of 51 ‘typical autism’ (TA), 52 ‘high-functioning autism’ (HFA), and 57 ‘Asperger syndrome (AS).’ Maternal reports showed that youth with ASD obtained less affection and more protection from the mother, and had less active mother-child interactions and more behavioral problems at home. Their mothers perceived less family support when compared to mothers of TD youth. Moreover, both TA and AS groups had more maternal protection and less maternal perceived family support, whereas HFA and co-occurring ADHD were only associated with more behavioral problems at home. The maternal and family process may vary across different ASD subgroups.

Brief report: Effects of video-based group instruction on spontaneous social interaction of adolescents with autism spectrum disorders

Author(s): Plavnick, Joshua B.; Dueñas, Ana D.

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Four adolescents with autism spectrum disorder (ASD) were taught to interact with peers by asking social questions or commenting about others during game play or group activities. Participants were shown a video model and then given an opportunity to perform the social behavior depicted in the model when playing a game with one another. All participants demonstrated an increase in both social interaction skills, replicating previous research on video-based group instruction for adolescents with ASD. The results suggest the procedure may be useful for teaching social skills that occur under natural conditions.

Sensory subtypes in preschool aged children with autism spectrum disorder

Author(s): Tomchek, Scott D.; Little, Lauren M.; Myers, John; Dunn, Winnie

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Given the heterogeneity of autism spectrum disorder (ASD), research has investigated how sensory features elucidate subtypes that enhance our understanding of etiology and tailored treatment approaches. Previous studies, however, have not integrated core developmental behaviors with sensory features in investigations of subtypes in ASD. Therefore, we used latent profile analysis to examine subtypes in a preschool aged sample considering sensory processing patterns in combination with social–communication skill, motor performance, and adaptive behavior. Results showed four subtypes that differed by degree and quality of sensory features, age and differential presentation of developmental skills. Findings partially align with previous literature on sensory subtypes and extends our understanding of how sensory processing aligns with other developmental domains in young children with ASD.

Evaluating sensory processing in fragile x syndrome: Psychometric analysis of the brain body center sensory scales (bbcss)

Author(s): Kolacz, Jacek; Raspa, Melissa; Heilman, Keri J.; Porges, Stephen W.

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Individuals with fragile X syndrome (FXS), especially those co-diagnosed with autism spectrum disorder (ASD), face many sensory processing challenges. However, sensory processing measures informed by neurophysiology are lacking. This paper describes the development and psychometric properties of a parent/caregiver report, the Brain-Body Center Sensory Scales (BBCSS), based on Polyvagal Theory. Parents/guardians reported on 333 individuals with FXS, 41% with ASD features. Factor structure using a split-sample exploratory-confirmatory design conformed to neurophysiological predictions. Internal consistency, test–retest, and inter-rater reliability were good to excellent. BBCSS subscales converged with the Sensory Profile and Sensory Experiences Questionnaire. However, data also suggest
that BBCSS subscales reflect unique features related to sensory processing. Individuals with FXS and ASD features displayed more sensory challenges on most subscales.

**Database:** PsycINFO

**Brief report: Adults with autism are less accurate at predicting how their personality traits are evaluated by unfamiliar observers**

**Author(s):** Sasson, Noah J.; Morrison, Kerrianne E.; Pinkham, Amy E.; Faso, Daniel J.; Chmielewski, Michael

**Source:** Journal of Autism and Developmental Disorders; Feb 2018; p. No

**Abstract:** Social cognitive impairments in autism spectrum disorder (ASD) are well-documented, yet little research has examined whether ASD is also characterized by difficulties in meta-perception, or the ability to gauge how one is perceived. In this study, ASD and TD adults (N = 22) largely did not differ on the self-perception of their personality traits or on how they expected to be perceived by unfamiliar observers. However adults with ASD were rated less favorably by TD observers (N = 412) on 19 out of 20 personality items, and adults with ASD were less accurate at predicting how they would be perceived. These findings suggest impaired meta-perception in ASD that may serve as a potential mechanism through which reduced social cognitive ability contributes to social impairment.

**Database:** PsycINFO

**Advanced maternal age and maternal education disparity in children with autism spectrum disorder**

**Author(s):** Lung, For-Wey; Chiang, Tung-Liang; Lin, Shio-Jean; Lee, Meng-Chih; Shu, Bih-Ching

**Source:** Maternal and Child Health Journal; Feb 2018; p. No

**Abstract:** Objective Previous studies have shown inconsistent results with regard to the association between advanced parental age and autism spectrum disorder (ASD). The sociodemographic status of parents has been found to be associated with children with ASD, however. Therefore, a pathway analysis was undertaken of the roles of maternal age and education in ASD diagnosis and community screening, in a national birth cohort database, using a propensity score matching (PSM) method. Method The 6- and 66-month Taiwan Birth Cohort Study dataset was used (N = 20,095). The PSM exact matching method was used to select 1700 families (ratio of 1:4 between ASD diagnosis and control) from the Taiwan Birth Cohort Study dataset. Results (1) The results from the complete dataset and the PSM exact matching dataset both show that the risk of a child being diagnosed with ASD was increased by the mother being over 40 years old. (2) Although more children of mothers with lower-than-average education were positive on screening, more children of mothers with higher-than-average education were also diagnosed with ASD. Conclusions for Practice Advanced maternal age had a higher association with the diagnosis of ASD, and maternal educational disparity was found between ASD clinical diagnosis and community screening. Community and primary medical care services should pay more attention to children of parents with lower education during ASD screening to prevent delayed diagnosis.

**Database:** PsycINFO

**Local and global visual processing in 3-year-olds with and without autism**

**Author(s):** Nilsson Jobs, Elisabeth; Falck-Ytter, Terje; Bölte, Sven

**Source:** Journal of Autism and Developmental Disorders; Feb 2018; p. No

**Abstract:** Research on visual local and global perception in Autism Spectrum Disorder (ASD) is incomplete in young children. We investigated 35 three-year-old siblings of children with ASD, either diagnosed (n = 12) or not diagnosed (n = 23) with ASD as well as 14 controls with typical development and with no family history of ASD. Data from the local tasks Children’s Embedded Figures Test, Hidden Pictures, Figure-Ground and the global tasks Closure and Fragmented Picture Test were collected. Enhanced performance on the local task Hidden Pictures differentiated children with ASD from the other groups. Implications of these results are discussed.

**Database:** PsycINFO

**Goal prediction in 2-year-old children with and without autism spectrum disorder: An eye-tracking study**

**Author(s):** Krogh-Jespersen, Sheila; Kaldy, Zsuzsa; Valadez, Annalisa Groth; Carter, Alice S.; Woodward, Amanda L.

**Source:** Autism Research; Feb 2018; p. No
Abstract: This study examined the predictive reasoning abilities of typically developing (TD) infants and 2-year-old children with autism spectrum disorder (ASD) in an eye-tracking paradigm. Participants watched a video of a goal-directed action in which a human actor reached for and grasped one of two objects. At test, the objects switched locations. Across these events, we measured: visual anticipation of the action outcome with kinematic cues (i.e., a completed reaching behavior); goal prediction of the action outcome without kinematic cues (i.e., an incomplete reach); and latencies to generate predictions across these two tasks. Results revealed similarities in action anticipation across groups when trajectory information regarding the intended goal was present; however, when predicting the goal without kinematic cues, developmental and diagnostic differences became evident. Younger TD children generated goal-based visual predictions, whereas older TD children were not systematic in their visual predictions. In contrast to both TD groups, children with ASD generated location-based predictions, suggesting that their visual predictions may reflect visuomotor perseveration. Together, these results suggest differences in early predictive reasoning abilities. Autism Res 2018. © 2018 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary The current study examines the ability to generate visual predictions regarding other people's goal-directed actions, specifically reaching and grasping an object, in infants and children with and without autism spectrum disorder. Results showed no differences in abilities when movement information about a person's goal was evident; however, differences were evident across age and clinical diagnoses when relying on previous knowledge to generate a visual prediction.

Database: PsycINFO

Spatial navigation from same and different directions: The role of executive functions, memory and attention in adults with autism spectrum disorder

Author(s): Ring, Melanie; Gaigg, Sebastian B.; de Condappa, Olivier; Wiener, Jan M.; Bowler, Dermot M.

Source: Autism Research; Feb 2018 ; p. No

Abstract: To resolve some of the inconsistencies in existing research into spatial navigation in autism spectrum disorder (ASD), we tested two large age- and ability-matched groups of ASD and typically developing (TD) participants for their spatial navigation abilities in a route learning task, which has been shown to shed light on the strategies participants employ when navigating complex environments. Participants studied a route through a virtual maze by watching a short video of a first-person perspective navigating a maze. The maze included four four-way intersections that were each marked with two unique landmarks in two corners of the intersection. At test, static images of the intersections, either as seen during the video or as approached from a different direction, were presented and participants had to indicate in which direction they would need to travel (straight, left, or right) in order to follow the originally studied route. On both types of test trials, the ASD group performed worse and their difficulties were related to reduced cognitive flexibility. Eye-movement data and follow-up item-memory tests suggested that navigation difficulties may have been related to differences in attention during encoding and less spontaneous use of landmarks as cues for navigation. Spatial navigation performance was best predicted by memory for landmarks as well as by executive functions. The results are discussed in relation to theories of underlying navigation-related brain regions. More research is needed to disentangle the influence of executive functions, memory and attention on spatial navigation. Autism Res 2018. © 2018 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary Navigating an environment is difficult for people with ASD independent of whether they are travelling in the same or in a different direction from that which they originally studied. The present study suggests that flexibility in alternating travel directions, difficulties in remembering landmarks as well as reduced attention to landmarks while learning a route play a role in the navigation difficulties in ASD. Guidance at route learning might help autistic individuals to improve their ability to navigate in their environments.

Database: PsycINFO

From ‘parent’ to ‘expert’: How parents of children with autism spectrum disorder make decisions about which intervention approaches to access

Author(s): Edwards, Amelia G.; Brebner, Chris M.; McCormack, Paul F.; MacDougall, Colin J.

Source: Journal of Autism and Developmental Disorders; Feb 2018 ; p. No

Abstract: Parents of children with Autism Spectrum Disorder are responsible for deciding which interventions to implement with their child. There is limited research examining parental decision-making with regards to intervention approaches. A constructivist grounded theory methodology was implemented in this study. Semi-structured interviews were undertaken with 14 participants from 12 family units. Data collection and analysis occurred concurrently, allowing a grounded theory to be constructed. Parental decision-making was influenced by many factors, arranged into seven core categories (values, experience, information, motivation, understanding, needs and logistics). Decision-making evolved over time, as
Parents transformed from ‘parent’ to ‘expert’. The results of this study provide an insight into parental decision-making, which has implications for the support provided to parents by health professionals.

Database: PsycINFO

Perceptual organization in individuals with autism spectrum disorder

Author(s): Evers, Kris; Hallen, Ruth; Noens, Ilse; Wagemans, Johan

Source: Child Development Perspectives; Feb 2018 ; p. No

Abstract: Autism spectrum disorder (ASD) is typically associated with problems in social communication and interaction, combined with restrictive and repetitive interests, behaviors, and activities. In addition, individuals with ASD often experience sensory abnormalities and have difficulties with perceptual organization, which can affect other aspects of information processing, such as attention, and perception of faces and motion. Researchers have studied atypical perceptual organization in individuals with ASD over the past decades, particularly in visual perception, finding both a reduced tendency to integrate information into meaningful wholes and a stronger focus on details in individuals with autism. In this article, we review empirical findings and describe briefly two influential theoretical accounts (weak central coherence and enhanced perceptual functioning theory), as well as more recent theoretical frameworks that emphasize the imbalance between local and global processing, or anomalies at the level of the brain as an engine of prediction.

Database: PsycINFO

Folate receptor autoantibodies are prevalent in children diagnosed with autism spectrum disorder, their normal siblings and parents

Author(s): Quadros, Edward V.; Sequeira, Jeffrey M.; Brown, W. Ted; Mevs, Clifford; Marchi, Elaine; Flory, Michael; Jenkins, Edmund C.; Velinov, Milen T.; Cohen, Ira L.

Source: Autism Research; Feb 2018 ; p. No

Abstract: Folate deficiency can affect fetal and neonatal brain development. Considering the reported association of Folate receptor alpha (FRα) autoantibodies (Abs) with autism and developmental disorders, we sought to confirm this in families of 82 children with ASD, 53 unaffected siblings, 65 fathers, and 70 mothers, along with 52 unrelated normal controls. Overall, 76% of the affected children, 75% of the unaffected siblings, 69% of fathers and 59% of mothers were positive for either blocking or binding Ab, whereas the prevalence of this Ab in the normal controls was 29%. The Ab was highly prevalent in affected families including unaffected siblings. The appearance of these antibodies may have a familial origin but the risk of developing ASD is likely influenced by other mitigating factors since some siblings who had the antibodies were not affected. The antibody response appears heritable with the blocking autoantibody in the parents and affected child increasing the risk of ASD. Autism Res 2018. © 2018 International Society for Autism Research, Wiley Periodicals, Inc. Lay Summary Folate is an essential nutrient during fetal and infant development. Autoantibodies against the folate receptor alpha can block folate transport from the mother to the fetus and to the brain in infants. Children diagnosed with autism and their immediate family members were evaluated for the prevalence of folate receptor autoantibodies. The autoantibody was highly prevalent in affected families with similar distribution in parents, normal siblings and affected children. The presence of these antibodies appears to have a familial origin and may contribute to developmental deficits when combined with other factors.

Database: PsycINFO

Characteristics of handwriting quality and speed in adults with autism spectrum disorders

Author(s): Godde, Anaïs; Tsao, Raphaele; Gepner, Bruno; Tardif, Carole

Source: Research in Autism Spectrum Disorders; Feb 2018; vol. 46 ; p. 19-28

Abstract: Background: Handwriting difficulties affecting production quality and speed have been identified in children and adolescents with autism spectrum disorders (ASD), and several perceptual-motor impairments have been shown to contribute to these difficulties. There has been only one study of handwriting in adults with ASD, and this focused on letter size, reporting macrographia. The present study was therefore intended to explore the other features of handwriting and the role of perceptual-motor skills in this activity in adults with ASD. Method: We recruited a group of adults with ASD (n = 21) and two typically developing control groups, matched on either chronological (n = 21) or developmental (n = 21) age. Participants performed a handwriting copy task to assess handwriting speed and quality, and five perceptual-motor tasks (finger dexterity, fine motor coordination, graphomotor activity, visuomotor integration, and visual attention). Results: Adults with ASD had significantly poorer handwriting quality than adults in the two control groups, and lower handwriting speed than adults of the same chronological age.
Developmental age was the best predictor of handwriting quality in adults with ASD, whereas visuomotor integration was the best predictor in the control group matched on developmental age. None of the factors we tested influenced production speed in adults with ASD. Conclusions: Handwriting in adults with ASD appears to show weaknesses and peculiarities. Further studies are needed to explore alternative predictive factors for handwriting speed and quality in adults with ASD, in order to improve handwriting and consequently increase employment opportunities for this population.

**Database:** PsycINFO

**Exercise effects for children with autism spectrum disorder: Metabolic health, autistic traits, and quality of life**

**Author(s):** Toscano, Chrystiane V. A.; Carvalho, Humberto M.; Ferreira, José P.

**Source:** Perceptual and Motor Skills; Feb 2018; vol. 125 (no. 1); p. 126-146

**Abstract:** This study examined the effects of a 48-week exercise-based intervention on the metabolic profile, autism traits, and perceived quality of life in children with autism spectrum disorder (ASD). We randomly allocated 64 children with ASD (aged 6–12 years) to experimental (n = 46) and control groups (n = 18) and used multilevel regression modeling to examine responses to receiving or not receiving the intervention. The experimental group showed beneficial effects on metabolic indicators (high-density lipoprotein cholesterol, low-density lipoprotein cholesterol, and total cholesterol), autism traits, and parent-perceived quality of life. Our results provide support for exercise and physical activity, including basic coordination and strength exercises, as important therapeutic interventions for children with ASD.

**Database:** PsycINFO

**Exercise effects for children with autism spectrum disorder: Metabolic health, autistic traits, and quality of life**

**Author(s):** Robertson, Ashley E.; Stanfield, Andrew C.; Watt, Jane; Barry, Fiona; Day, Matthew; Cormack, Magnus; Melville, Craig

**Source:** Research in Autism Spectrum Disorders; Feb 2018; vol. 46 ; p. 1-7

**Abstract:** Background: A high proportion of individuals with Autism Spectrum Disorder (ASD) also meet criteria for anxiety disorders. Few studies have explored the experience and impact of anxiety in autistic adults using qualitative methods. Methods: Seventeen semi-structured interviews with either autistic adults (n = 10) or the supporters of adults with a diagnosis of ASD (n = 7) were conducted. The data were analysed using thematic analysis. Results: Three main themes were identified: ‘contributing and mitigating factors to anxiety’, ‘consequences of anxiety’, and ‘management of anxiety’. Discussion: Findings highlighted the role that uncertainty plays in anxiety in autism, supporting existing theoretical accounts. Implications for clinical practice were discussed. These included ensuring that communication differences are minimised, and highlighting the importance of meaningfully including autistic people throughout the development and evaluation process of interventions for mental health.

**Database:** PsycINFO

**Understanding depression and thoughts of self-harm in autism: A potential mechanism involving loneliness**

**Author(s):** Hedley, Darren; Uljarević, Mirko; Wilmot, Mathilda; Richdale, Amanda; Dissanayake, Cheryl

**Source:** Research in Autism Spectrum Disorders; Feb 2018; vol. 46 ; p. 8-18

**Abstract:** Understanding depression and thoughts of self-harm in autism spectrum disorder (ASD) also meet criteria for suicide ideation and behavior. This study characterized the inter-relationships between loneliness, depression and thoughts of self-harm in adults with ASD. Method: Participants were 71 adults with ASD who completed questionnaires that provided information on loneliness, depression and thoughts of self-harm. Relationships between study variables were examined with correlations and a regression analysis. Two exploratory mediation models were then explored. Model 1 tested whether the relationship between depression and thoughts of self-harm was mediated through loneliness. Model 2 tested whether loneliness acted on thoughts of self-harm through depression. Results: Twenty-six percent of participants met the clinical cut-off for depression and 21% reported thoughts of self-harm. Depressive symptoms, loneliness, and thoughts of self-harm were significantly correlated. Only Model 2, that identified an indirect pathway from loneliness, through depression to thoughts of self-harm, was supported. The mediator for this model accounted for 56.7% of the total effect. Conclusions: This study examined potential mechanisms underlying depression and thoughts of self-harm in ASD. These results highlight a possible contribution of loneliness to depression and thoughts of self-harm, suggesting treatment options that target loneliness may prove beneficial in improving mental health outcomes in ASD.

**Database:** PsycINFO
Examining the association between autistic traits and atypical sensory reactivity: A twin study

Author(s): Taylor, Mark J.; Gustafsson, Peik; Larsson, Henrik; Gillberg, Christopher; Lundström, Sebastian; Lichstenstein, Paul

Source: Journal of the American Academy of Child & Adolescent Psychiatry; Feb 2018; vol. 57 (no. 2); p. 96-102

Abstract: Objective: Atypical responses to sensory stimuli are common features of autism spectrum disorders (ASD). Consequently, atypical sensory reactivity (SR) is now a diagnostic feature of ASD. Quantitative genetic research on ASD has overlooked these symptoms, however. We therefore investigated the association between autistic traits and SR using twin methods. Method: Autistic traits and SR were assessed by 2 separate scales in 12,419 Swedish twin pairs (n = 3,586 monozygotic [MZ], n = 8,833 dizygotic [DZ]) when the twins were 9 or 12 years of age. The classic twin design estimated the degree to which etiological factors associated with autistic traits were also associated with SR, and the degree to which such shared factors explained the covariance between these phenotypes. DeFries–Fulker analysis estimated the genetic correlation between screening diagnoses of ASD, defined broadly and strictly, and SR. Results: Autistic traits and SR were both highly heritable (62%–75% and 66%–71%, respectively). There was a moderate phenotypic correlation between autistic traits and SR ( r = 0.47). Genetic influences on these phenotypes correlated moderately (genetic correlation = 0.60). These overlapping genetic factors explained most of the correlation between autistic traits and SR. Genetic correlations with SR increased for broad ASD (genetic correlation = 0.72) and strict ASD (genetic correlation = 0.80). Conclusion: The genetic overlap observed between autistic traits and SR lends quantitative genetic support to the notion that ASD and SR are strongly linked. Such symptoms may thus comprise part of the ASD genotype, as well as phenotype. Associations persisted across all definitions of ASD, indicating a genetic link between the broader ASD phenotype and SR.

Database: PsycINFO

New evidence of genetic overlap between atypical sensory reactivity and autistic traits: Implications for future research

Author(s): Reiersen, Angela M.

Source: Journal of the American Academy of Child & Adolescent Psychiatry; Feb 2018; vol. 57 (no. 2); p. 84-85

Abstract: Comments on an article by M. J. Taylor et al. (see record 2018-05119-009). In the current issue of the Journal, Taylor et al. report evidence of overlap in the genetic and environmental influences that contribute to atypical sensory reactivity and those that contribute to autistic traits and autism spectrum disorder (ASD). The current analysis by Taylor et al. supports the need for future studies to investigate genetic and environmental influences on specific aspects of sensory processing and etiological overlap of sensory processing/reactivity with various neurodevelopmental disorders. To facilitate these studies, improved measures of sensory processing in ASD are needed. These emerging findings involving high-risk infants suggest that it may be possible not only to predict risk for future ASD, but to actually prevent the emergence of the full ASD syndrome through the identification and treatment of early differences in neurological functioning. Further research into genetic, neurobiological, and behavioral mechanisms underlying the relationship between sensory processing differences and core ASD symptoms may provide critical information needed to optimize early detection, prevention, and treatment of ASD.

Database: PsycINFO

Don’t ask me what’s the matter, ask me what matters: Acute mental health facility experiences of people living with autism spectrum conditions

Author(s): Maloret, P.; Scott, T.

Source: Journal of Psychiatric and Mental Health Nursing; Feb 2018; vol. 25 (no. 1); p. 49-59

Abstract: Background: This qualitative study explored how mental health inpatients with autistic spectrum conditions (ASCs) experience and cope with anxiety when admitted to an acute mental health inpatient facility in the United Kingdom. Anxiety is a common characteristic for people who live with ASCs and whilst a plethora of studies on anxiety in this population is published which correlate anxiety with mental health service experience, little is known about the actual triggers of anxiety and its manifestations. This study adds to a body of evidence which considers anxiety experienced by people with autism. The rationale for this study includes the need to heighten mental health practitioners’ understanding, of the responses, motivations to engage and support required to overcome fears and anxieties when admitted to a mental health inpatient unit. Method: The study used a qualitative naturalistic research design, to explore the
emotional and psychological experiences of being a mental health inpatient living with an ASC. During 2015–2017, audio-recorded semistructured interviews captured the experiences of 20 adults from the east of England who were former psychiatric inpatients with an established diagnosis of ASC. Interpretative phenomenological analysis enabled the identification of broad themes which explained in rich detail, participant reflections regarding the situations and events within the acute care mental health facility that triggered their anxiety, manifestations of anxiety and responses to their anxiety. Findings: Broad response patterns were identified that could be associated with their anxiety that is isolating themselves from others, including patients and staff, ceasing to eat and sleep adequately and all too often self-harming or exhibiting aggressive and violent responses. Conclusions: The anxiety caused by the physical environment appears to be overlooked by mental health practitioners so attention to anxiety-inducing encounters is needed when planning acute care mental health service improvement and research is required to clearly understand the experiences of this vulnerable group.

Database: PsycINFO

Perceptual simulations during sentence comprehension: A comparison between typical adolescents and adolescents with autism spectrum disorder

Author(s): Peleg, Orna; Ozer, Rotem; Norman, Tal; Segal, Osnat

Source: Journal of Neurolinguistics; Feb 2018; vol. 45; p. 36-44

Abstract: Consistent with embodied theories of language comprehension, several studies have shown that comprehenders automatically activate perceptual (visual) information of verbally described objects, even when this information in neither explicitly mentioned nor necessary to perform the task. To clarify the role of perceptual activations in meaning construal; and to identify a potential cause of comprehension difficulties in autism spectrum disorder (ASD), the present study examined the extent to which individuals with ASD activate perceptual representations during sentence comprehension. 16 adolescents with ASD and 16 typically developing (TD) controls were asked to decide whether an object depicted in a line drawing had been mentioned in a preceding sentence. In the match condition, the shape or the orientation of the object matched the one implied by the preceding sentence. In the mismatched condition, the shape or the orientation of the object did not match the one implied by the sentence. TD adolescents responded faster in the match than in the mismatch condition. In contrast, adolescents with ASD did not distinguish between the two conditions. Thus, compared to controls, ASD adolescents were less able to spontaneously activate perceptual information as a function of sentence context. The implications of these results are discussed.

Database: PsycINFO

Non-violent resistance parent training for the parents of young adults with High Functioning Autism Spectrum Disorder

Author(s): Golan, Ofer; Shilo, Hila; Omer, Haim

Source: Journal of Family Therapy; Feb 2018; vol. 40 (no. 1); p. 4-24

Abstract: A ‘dependence trap’ between parents and young adults with High Functioning Autism Spectrum Disorder (HF-ASD) develops when parents accommodate to the needs of their grown-up child in ways that may hinder development and cause distress. Non-Violent Resistance (NVR) parent training may help parents reduce their accommodation, manage arising conflicts through de-escalation techniques, and amass external support for themselves and their child. Parents of four young adults with HF-ASD received a ten-week modified NVR parent training. Cases were evaluated through semi-structured interviews and self-report questionnaires. The parents reported improved independent functioning, reduced parental helplessness and accommodation, and enhanced support. Questionnaires showed improvements in reported parental hopefulness and reduced parental depression. Practitioner points: (1) Families with a grown-up child with HF-ASD may be characterised by excessive parental accommodation that is detrimental to optimal functioning. (2) Accommodation increases dependence, which in turn requires continued accommodation, forming a ‘dependence trap.’ (3) NVR parent training may help parents to young adults with HF-ASD reduce parental accommodation, helplessness and depression, while improving hopefulness and adaptation.

Database: PsycINFO

Imagining Counterfactual Worlds in Autism Spectrum Disorder

Author(s): Black, Jo; Williams, David; Ferguson, Heather J.

Source: Journal of Experimental Psychology: Learning, Memory, and Cognition; Feb 2018; p. No

Abstract: Two experiments are presented that explore online counterfactual processing in autism spectrum disorder (ASD) using eye-tracking. Participants’ eye movements were tracked while they read factual and
counterfactual sentences in an anomaly detection task. In Experiment 1, the sentences depicted everyday counterfactual situations (e.g., If Joanne had remembered her umbrella, her hair would have been dry/wet when she arrived home). Sentences in Experiment 2 depicted counterfactual versions of real world events (e.g., If the Titanic had not hit an iceberg, it would have survived/sunk along with all the passengers). Results from both experiments suggest that counterfactual understanding is undiminished in adults with ASD. In fact, participants with ASD were faster than Typically Developing (TD) participants to detect anomalies within realistic, discourse-based counterfactuals (Experiment 1). Detection was comparable for TD and ASD groups when understanding could be grounded in knowledge about reality (Experiment 2), though the 2 groups used subtly different strategies for responding to and recovering from counterfactual inconsistent words. These data argue against general difficulties in global coherence and complex integration in ASD.

Database: PsycINFO

Online gaming, loneliness and friendships among adolescents and adults with ASD

Author(s): Sundberg, Martin

Source: Computers in Human Behavior; Feb 2018; vol. 79 ; p. 105-110

Abstract: Adolescents and adults with Autism Spectrum Disorder (ASD) are prone to experience poor friendships and loneliness. This group has also shown a particular interest for screen-based media and computer-games. Online multiplayer games have shown to promote social interaction and friendship building among the general population, however, no study has yet investigated these possibilities for persons with ASD. The current study aims to investigate the possible links between online gaming, loneliness and friendships in a sample of 85 adolescents and adults with ASD and a control group of 71 participants. Data was gathered through self-reported questionnaires. Results indicated that within the ASD sample, persons who play online games have more friends than those who do not. Motives to play online games differed between the ASD sample and the control group. Additionally, low to moderate use of online games was linked with less loneliness experienced among participants with ASD. However, friendship quality and having a best or close friend were not linked with online gaming. The results provide the first findings for connections between online gaming, loneliness and friendships among individuals with ASD. It also provides evidence for future studies to further investigate the possible casual effects between online gaming, loneliness and friendship among individuals with ASD.

Database: PsycINFO

Enhance emotional and social adaptation skills for children with autism spectrum disorder: A virtual reality enabled approach

Author(s): Ip, Horace H. S.; Wong, Simpson W. L.; Chan, Dorothy F. Y.; Byrne, Julia; Li, Chen; Yuan, Vanessa S. N.; Lau, Kate S. Y.; Wong, Joe Y. W.

Source: Computers & Education; Feb 2018; vol. 117 ; p. 1-15

Abstract: Deficits in social-emotional reciprocity, one of the diagnostic criteria of Autism Spectrum Disorder (ASD), greatly hinders children with ASD from responding appropriately and adapting themselves in various social situations. Although evidences have shown that virtual reality environment is a promising tool for emotional and social adaptation skills training on ASD population, there is a lack of large-scale trials with intensive evaluations to support such findings. This paper presents a virtual reality enabled program for enhancing emotional and social adaptation skills for children with ASD. Six unique learning scenarios, of which one focuses on emotion control and relaxation strategies, four that simulate various social situations, and one that facilitates consolidation and generalization, are designed and developed with corresponding psychoeducation procedures and protocols. The learning scenarios are presented to the children via a 4-side immersive virtual reality environment (a.k.a., half-CAVE) with non-intrusive motion tracking. A total number of 94 children between the ages of 6–12 with clinical diagnosis of ASD participated in the 28-session program that lasted for 14 weeks. By comparing pre- and post-assessments, results reported in this paper show significant improvements in the project's primary measures on children's emotion expression and regulation and social-emotional reciprocity but not on other secondary measures.

Database: PsycINFO

Criminal responsibility in autism spectrum disorder: A critical review examining empathy and moral reasoning

Author(s): Grant, Tessa; Furlano, Rosaria; Hall, Layla; Kelley, Elizabeth

Source: Canadian Psychology/Psychologie canadienne; Feb 2018; vol. 59 (no. 1); p. 65-75
Abstract: Recent research has suggested the existence of a subset of individuals with autism spectrum disorder (ASD) that demonstrate criminal behaviour. It follows, then, that researchers must answer the question of whether an offender’s diagnosis of ASD impacts his or her criminal responsibility. Such research has indicated that individuals with ASD display deficits in cognitive empathy and higher order moral reasoning. Based on these deficits, in the present narrative review, our findings suggest that an ASD diagnosis should be considered when establishing criminal responsibility, as defined by the Canadian Criminal Code (1985), c. C-46. To further understand how an ASD diagnosis might influence the evaluation of criminal responsibility, we compared the deficits in empathy and moral reasoning observed in ASD with those observed in individuals with psychopathy. We have also presented limitations of previous research investigating moral reasoning and empathy as they relate to criminal responsibility in ASD, as well as future directions that could lead to development in this area. Although this review has been considered in accordance with Canadian law, there are certainly applications to the issue of criminal responsibility worldwide.

Database: PsycINFO

An approach to cleanliness training to support bathroom hygiene among children with autism spectrum disorder

Author(s): Byra, Kristen L.; White, Shannon; Temple, Matthew; Cameron, Michael J.

Source: Behavior Analysis in Practice; Feb 2018 ; p. No

Abstract: The current investigation extends the findings of previous studies on the effects of simulation and correspondence training for teaching hygiene skills. Two male participants between the ages of 5 and 6 with autism spectrum disorder (ASD) were taught hygiene skills in a clinic setting. Both participants acquired the hygiene routine. Following instruction, the participants' parents conducted probe sessions to assess generalization to the home environment. Generalization occurred for both participants. Moreover, a 6-month follow-up probe confirmed the maintenance of skills. This article provides utility to practitioners by providing a methodology for teaching hygiene after a bowel movement, demonstrating the generalization of skills from the clinic to the home, and providing a model for parent involvement.

Database: PsycINFO

Experience of parents of children with autism on YouTube: are there educationally useful videos?

Author(s): Azer, Samy A; Bokhari, Raghad A; AlSaleh, Ghadah S; Alabdulaaly, May M; Ateeq, Khawlah I; Guerrero, Anthony P S; Azer, Sarah

Source: Informatics for health & social care; Feb 2018 ; p. 1-15

Abstract: The aims of this study were to determine the following: first, are there educationally useful videos of parents of children with autism sharing their experiences? Second, do any of the data related to videos help in identifying useful videos? And third, what do posted comments tell us? YouTube was searched for videos of parents sharing their experiences. The following parameters were collected: title, creator, URL, duration, number of viewers, likes, dislikes, comments, days on YouTube, and country. Based on agreed-upon criteria, videos were divided independently into educationally useful and non-useful categories. A critical thematic analysis of comments was conducted. A total of 180 videos were finally identified, of which 106 (59%) provided useful information, scoring 15.3 ± 0.7 (mean ± SD); 74 (41%) were determined to be not educationally useful, scoring 8.6 ± 2.1. The differences in scores were significant (p < 0.001), but there were no significant differences between the useful and non-useful groups in terms of video parameters. No correlation was found between scores and any of the videos' parameters. In conclusion, there are videos that can be used as educational resources. The videos' parameters did not differentiate between useful and non useful. Useful videos were mostly created by professional societies and by parents. The study reflects the emerging role of YouTube in sharing experiences.

Database: Medline

An investigation of the association between seizures, autism symptomology, and developmental functioning in young children.

Author(s): Burns, Claire O; Matson, Johnny L

Source: Developmental neurorehabilitation; Feb 2018 ; p. 1-9

Abstract: OBJECTIVE The aim of the present study was to explore whether a history of seizures was associated with autism symptom severity and developmental functioning in young children. METHODS Autism symptom severity and developmental functioning were compared between children with and without a history or seizures who either had atypical development or met criteria for autism spectrum disorder
(ASD) based on review of records by a licensed clinical psychologist. RESULTS Parents of children who met criteria for ASD reported lower levels of autism symptomology when the child had a history of seizures, while the opposite trend was found for children with atypical development. Participants without ASD or seizures had greater developmental functioning than the other groups. CONCLUSION The present study emphasizes the need for early identification and diagnosis of both ASD and seizure disorders, as timely intervention for these two conditions may be related to improved outcomes for young children.

Database: Medline

Coping and care-related stress in parents of a child with autism spectrum disorder.

Author(s): Shepherd, Daniel; Landon, Jason; Taylor, Steve; Goedeke, Sonja
Source: Anxiety, stress, and coping; Feb 2018; p. 1-14
Abstract: BACKGROUND AND OBJECTIVES Parenting a child with Autism Spectrum Disorder (ASD) is challenging and can result in elevated levels of parenting stress. This study investigated the relationship between parent-ratings of their child's ASD symptoms and two conceptually different measures of parenting stress: one specific to the ASD context and the other a general stress measure applicable to the broader caregiving context. Additionally, the influence of coping style on the relationship between child's ASD symptoms and parenting stress was investigated. DESIGN AND METHODS Using an internet survey, parents (N = 178) caring for a child with ASD reported on coping strategies, completed two measures of parenting stress, and assessed their child's ASD symptoms. RESULTS Parenting stress increased with severity of the child's ASD symptoms, but the strength of this relationship depended on whether a general or disorder-specific measure of parenting stress was used. Regression analyses indicated that some coping strategies moderated the impact of ASD symptom severity on the parent's care-related stress, but moderation depended on how stress was conceptualized. CONCLUSION This study reinforces the importance of identifying the coping strategies of parents of children with developmental disorders, and highlights the consequences of using different conceptual approaches to measure parenting stress.

Database: Medline

Autism spectrum disorder in primary care.

Author(s): Weill, Victoria A; Zavodny, Stefanie; Souders, Margaret C
Source: The Nurse practitioner; Feb 2018; vol. 43 (no. 2); p. 21-28
Abstract: Nurse practitioners working in the primary care setting will commonly see children with autism spectrum disorder. It is important for clinicians to be vigilant for subtle developmental signs that can lead to early identification and diagnosis. This article presents information on assessment, screening, the responsibilities of coordinating services, and ways to support families.

Database: Medline

Negative emotional face perception is diminished on a very early level of processing in autism spectrum disorder.

Author(s): Prehn-Kristensen, Alexander; Lorenzen, Anna; Grabe, Fabian; Baving, Lioba
Source: Social neuroscience; Feb 2018
Abstract: Deficits in facial affect recognition (FAR) are often reported in autism spectrum disorders (ASD) due to inappropriate visual search strategies. It is unclear, however, whether or not deficits in subliminal FAR are still present in autism when visual focus is controlled. Thirteen persons with ASD and 13 healthy participants took part in this experiment. Supraliminal FAR was assessed using a standardized, computer-aided test. Subliminal FAR was obtained by an emotional face priming paradigm. By using an eye-tracking technique, it was assured that the initial visual focus was on the eyes of the prime. Persons with ASD showed worse FAR in supraliminal face recognition. Although controlled for initial gaze direction, participants also showed reduced negative face priming. These data confirm that FAR is disturbed already on a pre-attentive level in autism.

Database: Medline


Author(s): Pfeiffer, Beth; Piller, Aimee; Slugg, Laura; Shiu, Chengshi
Source: Journal of autism and developmental disorders; Feb 2018
Abstract: The Participation and Sensory Environment Questionnaire: Home Scales (P-SEQ): Home Scales is a parent report tool designed to assess the impact of the sensory environment on participation in daily
activities in the home of children with and without autism spectrum disorder. A cross-sectional study was completed to determine internal consistency, test-retest reliability, and examine item distribution. A total of 304 parents of children between the ages of 2 and 7 years of age completed the P-SEQ: Home Scales. Results identified excellent internal consistency ($\alpha = 0.96$), moderate test-retest reliability ($r = .62$), and reasonable item distribution. Results suggest that the P-SEQ: Home Scales provides reliable estimates of the impact of the sensory environment on children's participation in home activities.

Database: Medline

**Prediction of Autism at 3 Years from Behavioural and Developmental Measures in High-Risk Infants: A Longitudinal Cross-Domain Classifier Analysis.**

Author(s): Bussu, G; Jones, E J H; Charman, T; Johnson, M H; Buitelaar, J K; BASIS Team

Source: Journal of autism and developmental disorders; Feb 2018

Abstract: We integrated multiple behavioural and developmental measures from multiple time-points using machine learning to improve early prediction of individual Autism Spectrum Disorder (ASD) outcome. We examined Mullen Scales of Early Learning, Vineland Adaptive Behavior Scales, and early ASD symptoms between 8 and 36 months in high-risk siblings (HR; $n = 161$) and low-risk controls (LR; $n = 71$). Longitudinally, LR and HR-Typical showed higher developmental level and functioning, and fewer ASD symptoms than HR Atypical and HR-ASD. At 8 months, machine learning classified HR-ASD at chance level, and broader atypical development with 69.2% Area Under the Curve (AUC). At 14 months, ASD and broader atypical development were classified with approximately 71% AUC. Thus, prediction of ASD was only possible with moderate accuracy at 14 months.

Database: Medline

**Family Experiences with the Diagnosis of Autism Spectrum Disorder: System Barriers and Facilitators of Efficient Diagnosis.**

Author(s): Martinez, M; Thomas, K C; Williams, C S; Christian, R; Crais, E; Pretzel, R; Hooper, S R

Source: Journal of autism and developmental disorders; Feb 2018

Abstract: This paper examines family experiences with the efficiency of ASD diagnosis. Children were age 8 or younger with ASD ($n = 450$). Outcomes were delay from first parent concern to diagnosis, shifting diagnoses, and being told child did not have ASD. Predictors were screening, travel distance, and problems finding providers. Logit models were used to examine associations. Screening was associated with reduced delay in diagnosis; problems finding providers were associated with greater delay. Screening, travel distance, and delay in diagnosis were associated with shifting diagnoses and being told child did not have ASD. Physician and parent training in communication and addressing mental health professional shortages and maldistribution may improve the diagnosis experiences of families of children with ASD.

Database: Medline

**Exploring the Effectiveness of a Peer-Mediated Model of the PEERS Curriculum: A Pilot Randomized Control Trial.**

Author(s): Matthews, Nicole L; Orr, Beatriz C; Warriner, Katrina; DeCarlo, Mary; Sorensen, Mia; Laflin, Jessica; Smith, Christopher J

Source: Journal of autism and developmental disorders; Feb 2018

Abstract: This study compared immediate and 4-month outcomes among adolescents with autism spectrum disorder randomly assigned to the PEERS curriculum ($n = 10$), a peer mediated PEERS curriculum ($n = 12$), or a delayed treatment control group ($n = 12$). Findings suggest a modest advantage in social skills knowledge and social functioning for participants in the peer-mediated PEERS curriculum relative to Traditional PEERS, and gains in social skills knowledge, social functioning, and reductions in loneliness were maintained in one or both treatment groups at a 4-month follow-up. Typically developing peer mentors ($n = 16$) showed improvements in social skills knowledge and marginal improvements in autism knowledge and loneliness. Future research with a larger sample and objective outcome measures is needed.

Database: Medline

**Autism Treatment Evaluation Checklist (ATEC) Norms: A "Growth Chart" for ATEC Score Changes as a Function of Age.**

Author(s): Mahapatra, Shreyas; Vyshedsky, David; Martinez, Samantha; Kannel, Benjamin; Braverman, Julia; Edelson, Stephen M; Vyshedskiy, Andrey

Source: Children (Basel, Switzerland); Feb 2018; vol. 5 (no. 2)
Autism Treatment Evaluation Checklist (ATEC) was designed nearly two decades ago to provide such a tool, but the norms on the longitudinal changes in ATEC in the “treatment as usual” population were lacking. Here we report the norms of the observational cohort who voluntarily completed ATEC evaluations over the period of four years from 2013 to 2017.

Database: Medline

From child autistic symptoms to parental affective symptoms: A family process model.

Author(s): Chan, Kevin Ka Shing; Lam, Chun Bun; Law, Naska Chung Wa; Cheung, Ryan Yat Ming

Source: Research in developmental disabilities; Feb 2018; vol. 75 ; p. 22-31

Abstract: BACKGROUND Depresssion and anxiety are prevalent among parents of children with autism spectrum disorder (ASD), but limited research has investigated why parenting a child with ASD is associated with elevated distress and increased risks of mental health problems. We responded to this gap in the literature by examining the associations between child autistic symptoms and parental affective symptoms, as well as the potential underlying mechanisms. Guided by a family process theory, we hypothesized that child autistic symptoms would be positively associated with parental depressive and anxiety symptoms, and that these associations would be mediated by parents’ concerns about their children’s characteristics (future-related worry), parental roles (parenting stress), marital relationships (marital conflicts), and family conditions (family economic pressure). METHODS Cross-sectional questionnaire data were collected from 375 parents of children with ASD residing in Hong Kong, China. The hypotheses were tested using structural equation modeling. RESULTS Child autistic symptoms were positively associated with parental depressive and anxiety symptoms. These associations were mediated by future-related worry, parenting stress, marital conflicts, and family economic pressure. CONCLUSIONS Our findings revealed the potential pathways through which child autism symptomatology may adversely affect parental mental health. Our findings also highlighted the importance of designing multipronged intervention programs for families raising children with ASD in order to improve relevant family processes and reduce parental affective symptoms.

Database: Medline

Allied Health Professionals’ Knowledge and Use of ASD Intervention Practices.

Author(s): Paynter, Jessica; Sulek, Rhylee; Luskin-Saxby, Sarah; Trembath, David; Keen, Deb

Source: Journal of autism and developmental disorders; Feb 2018

Abstract: Allied health professionals (AHPs) are trusted sources of information and intervention for clients with autism spectrum disorder. However, the level of implementation of empirically-supported therapies and the accuracy of the knowledge they use to inform intervention selection is largely unknown. The present study explored the accuracy of AHPs’ knowledge and use of practices, and explored links to individual attitudes and organisational culture. Overall results from the 156 AHPs surveyed suggested general accuracy of knowledge, and use of empirically supported treatments, with accuracy linked to use. Use of practices unsupported by research was linked to organisational culture and openness to new interventions. The presence of misinformation and the impact on selection and use of effective practices are discussed.

Database: Medline


Author(s): McKinney, Cliff; Gadke, Daniel L; Malkin, Mallory L

Source: Journal of American college health : J of ACH; Feb 2018 ; p. 0

Abstract: Research on parenting children with autism spectrum disorder (ASD) indicates these children receive parenting tailored to their condition. However, little is known about ASD in adulthood, especially in emerging adults at college, and how they are parented. The current study examined how emerging adults in a non-clinically typically-developing sample differed in their current perceptions of parenting as a function of ASD traits. Participants completed questionnaires about their current perceptions of parenting and self-reported ASD traits. Parenting characteristics assessed included parenting style, discipline, parent-child relationship quality, and parental distress. Results indicated that higher levels of self-reported ASD traits were associated with increasingly ineffective parenting characteristics including lower authoritative style,
harsher discipline, poorer parent-child relationship quality (e.g., lower involvement), and higher parental distress. Researchers are encouraged to extend ASD research into adulthood by validating diagnostic methods with adults and investigating processes in adulthood that have been well-established in the childhood ASD literature.

**Database:** Medline

**An interview-informed synthesized contingency analysis to inform the treatment of challenging behavior in a young child with autism.**

**Author(s):** Herman, Ciara; Healy, Olive; Lydon, Sinéad

**Source:** *Developmental neurorehabilitation; Feb 2018; p. 1-6*

**Abstract:** PURPOSE Experimental Functional analysis (EFA) is considered the "gold standard" of behavioural assessment and its use is predictive of treatment success. However, EFA has a number of limitations including its lengthy nature, the high level of expertise required, and the reinforcement of challenging behaviour. This study aimed to further validate a novel interview-informed synthesised contingency analysis (IISCA). METHODS An open-ended interview and brief direct observation informed an IISCA for a young boy with autism who engaged in challenging behaviour. Resulting data supported the hypothesis that the target behaviour was multiply controlled by escape from demands and access to tangible items. An intervention comprised of most-to-least prompting, escape extinction, differential reinforcement and a high-probability instruction sequence was evaluated using a reversal design. RESULTS This intervention reduced challenging behaviour to low levels and resulted in increased compliance. CONCLUSIONS Findings support the status of the IISCA as a valid, practical, and effective process for designing function-based interventions.

**Database:** Medline

**Speech perception in autism spectrum disorder: An activation likelihood estimation meta-analysis.**

**Author(s):** Tryfon, Ana; Foster, Nicholas E V; Sharda, Megha; Hyde, Krista L

**Source:** *Behavioural brain research; Feb 2018; vol. 338; p. 118-127*

**Abstract:** Autism spectrum disorder (ASD) is often characterized by atypical language profiles and auditory and speech processing. These can contribute to aberrant language and social communication skills in ASD. The study of the neural basis of speech perception in ASD can serve as a potential neurobiological marker of ASD early on, but mixed results across studies renders it difficult to find a reliable neural characterization of speech processing in ASD. To this aim, the present study examined the functional neural basis of speech perception in ASD versus typical development (TD) using an activation likelihood estimation (ALE) meta-analysis of 18 qualifying studies. The present study included separate analyses for TD and ASD, which allowed us to examine patterns of within-group brain activation as well as both common and distinct patterns of brain activation across the ASD and TD groups. Overall, ASD and TD showed mostly common brain activation of speech processing in bilateral superior temporal gyrus (STG) and left inferior frontal gyrus (IFG). However, the results revealed trends for some distinct activation in the TD group showing additional activation in higher-order brain areas including left superior frontal gyrus (SFG), left medial frontal gyrus (MFG), and right IFG. These results provide a more reliable neural characterization of speech processing in ASD relative to previous single neuroimaging studies and motivate future work to investigate how these brain signatures relate to behavioral measures of speech processing in ASD.

**Database:** Medline

**Differential vocational rehabilitation service patterns and outcomes for transition-age youth with autism.**

**Author(s):** Kaya, Cahit; Hanley-Maxwell, Cheryl; Chan, Fong; Tansey, Timothy

**Source:** *Journal of applied research in intellectual disabilities: JARID; Feb 2018*

Available at *Journal of applied research in intellectual disabilities: JARID* - from Wiley Online Library All Journals Login with Athens Account details

**Abstract:** BACKGROUND It is important to investigate receipt of vocational rehabilitation (VR) services, service patterns and outcomes for youth with autism, so that limited public resources can be used more efficiently. METHOD This study used chi-squared automatic interaction detector, and multivariate logistic regression analysis to investigate relationships between demographic variables, receipt of VR services and employment outcomes for transition-age youth (TAY) with Autism. RESULTS The results indicate that gender, education level and cash benefits are significant predictors of employment outcomes. After
controlling for the effect of demographic variables, several VR services (i.e., job placement, on-the-job support, on-the-job training, maintenance, other services, information referral, and diagnostic and treatment services) were significantly associated with competitive employment. CONCLUSIONS Overall, the results indicate that job-related services were significantly related to employment outcomes for TAY with Autism; therefore, it is important these youths are provided with more targeted job placements and supported employment services (Wehman et al., ).

Database: Medline

Mental Health Interventions for Parent Carers of Children with Autistic Spectrum Disorder: Practice Guidelines from a Critical Interpretive Synthesis (CIS) Systematic Review.

Author(s): Catalano, Denise; Holloway, Linda; Mpofu, Elias

Source: International journal of environmental research and public health; Feb 2018; vol. 15 (no. 2)

Available at International Journal of Environmental Research and Public Health - from EBSCO (MEDLINE Complete)

Abstract: Parent carers of children with Autism Spectrum Disorder (ASD) often report increased levels of stress, depression, and anxiety. Unmet parent carer mental health needs pose a significant risk to the psychological, physical, and social well-being of the parents of the child affected by ASD and jeopardize the adaptive functioning of the family as well as the potential of the child affected by ASD. This systematic review identifies key qualities of interventions supporting the mental health of parent carers and proposes practitioner-parent carer support guidelines. A search of four databases (Medline, PubMed, PsycINFO, and Social Science Data) was conducted to identify studies that met the following criteria: (1) an intervention was delivered to parent carers of a child with ASD under the age of 18 years; (2) the research design allowed for a comparison on outcomes across groups; and (3) outcome measures of the parent carers' mental health were used. A total of 23 studies met the inclusion criteria. A critical interpretive synthesis approach was used to produce an integrated conceptualization of the evidence. Findings suggest practitioner guidelines to support the mental health and wellbeing of parent carers should include addressing the parent's self-perspective taking and skill for real time problem-solving.

Database: Medline

Indices of repetitive behaviour are correlated with patterns of intrinsic functional connectivity in youth with autism spectrum disorder.

Author(s): Traynor, J M; Doyle-Thomas, K A R; Hanford, L C; Foster, N E; Tryfon, A; Hyde, K L; Anagnostou, E; Evans, A C; Zwaigenbaum, L; Hall, G B C; Asd Imaging Group, NeuroDevNet

Source: Brain research; Feb 2018

Abstract: The purpose of the current study was to examine how repetitive behaviour in Autism Spectrum Disorder (ASD) is related to intrinsic functional connectivity patterns in a number of large-scale, neural networks. Resting-state fMRI scans from thirty subjects with ASD and thirty-two age-matched, typically developing control subjects were analysed. Seed-to-voxel and ROI-to-ROI functional connectivity analyses were used to examine resting-state connectivity in a number of cortical and subcortical neural networks. Bivariate correlation analysis was performed to examine the relationship between repetitive behaviour scores from the Repetitive Behaviour Scale - Revised and intrinsic functional connectivity in ASD subjects. Compared to control subjects, ASD subjects displayed marked over-connectivity of the thalamus with several cortical sensory processing areas, as well as over-connectivity of the basal ganglia with somatosensory and motor cortices. Within the ASD group, significant correlations were found between functional connectivity patterns and total RBS-R scores as well as one principal component analysis-derived score from the RBS-R. These results suggest that thalamocortical resting-state connectivity is altered in individuals with ASD, and that resting-state functional connectivity is associated with ASD symptomatology.

Database: Medline

The Relationship between Anxiety, External Structure, Behavioral History and Becoming Locked into Restricted and Repetitive Behaviors in Autism Spectrum Disorder.

Author(s): Cashin, Andrew; Yorke, James

Source: Issues in mental health nursing; Feb 2018 ; p. 1-5

Abstract: Restricted and repetitive behaviors (RRBs) are central to the diagnosis of autism spectrum disorder (ASD), yet there remains a paucity of research in this domain. What is clear is that people with ASD are vulnerable to getting locked into rigid patterns of thought and behavior that contribute to a lack of adaptation. This study utilized an online survey to explore the relationship between anxiety, external
structure, the measurement of RRBs and behavioral history of being locked into RRBs. A significant relationship was identified between level of anxiety and a history of becoming locked into RRBs. The likelihood of becoming locked into RRBs increased at times of decreased external structure in the routine of people with ASD.

**Database:** Medline

**Machine learning in autistic spectrum disorder behavioral research: A review and ways forward.**

**Author(s):** Thabtah, Fadi

**Source:** *Informatics for health & social care*; Feb 2018; p. 1-20

**Abstract:** Autistic Spectrum Disorder (ASD) is a mental disorder that retards acquisition of linguistic, communication, cognitive, and social skills and abilities. Despite being diagnosed with ASD, some individuals exhibit outstanding scholastic, non-academic, and artistic capabilities, in such cases posing a challenging task for scientists to provide answers. In the last few years, ASD has been investigated by social and computational intelligence scientists utilizing advanced technologies such as machine learning to improve diagnostic timing, precision, and quality. Machine learning is a multidisciplinary research topic that employs intelligent techniques to discover useful concealed patterns, which are utilized in prediction to improve decision making. Machine learning techniques such as support vector machines, decision trees, logistic regressions, and others, have been applied to datasets related to autism in order to construct predictive models. These models claim to enhance the ability of clinicians to provide robust diagnoses and prognoses of ASD. However, studies concerning the use of machine learning in ASD diagnosis and treatment suffer from conceptual, implementation, and data issues such as the way diagnostic codes are used, the type of feature selection employed, the evaluation measures chosen, and class imbalances in data among others. A more serious claim in recent studies is the development of a new method for ASD diagnoses based on machine learning. This article critically analyses these recent investigative studies on autism, not only articulating the aforementioned issues in these studies but also recommending paths forward that enhance machine learning use in ASD with respect to conceptualization, implementation, and data. Future studies concerning machine learning in autism research are greatly benefitted by such proposals.

**Database:** Medline

**Is there a generalized timing impairment in Autism Spectrum Disorders across time scales and paradigms?**

**Author(s):** Isaksson, Sofia; Salomäki, Susanna; Tuominen, Jarno; Arstila, Valtteri; Falter-Wagner, Christine M; Noreika, Valdas

**Source:** *Journal of psychiatric research*; Feb 2018; vol. 99; p. 111-121

**Abstract:** Individuals with ASD have abnormal motor and perceptual functions that do not currently form diagnostic criteria of ASD, but nevertheless may affect everyday behaviour. Temporal processing seems to be one of such non-diagnostic yet impaired domains, although the lack of systematic studies testing different aspects of timing in the same sample of participants prevents a conclusive assessment of whether there is a generalized temporal deficit in ASD associated with diagnostic symptoms. 17 children diagnosed with ASD and 18 typically developing age- and IQ-matched controls carried out a set of motor and perceptual timing tasks: free tapping, simultaneity judgment, auditory duration discrimination, and verbal duration estimation. Parents of participants filled in a questionnaire assessing the sense and management of time. Children with ASD showed faster and more variable free tapping than controls. Auditory duration discrimination thresholds were higher in the ASD group than controls in a sub-second version of the task, while there were no group differences in a supra-second discrimination of intervals. Children with ASD showed more variable thresholds of simultaneity judgment, and they received lower parental scores for their sense and management of time. No group differences were observed in the verbal duration estimation task in the minute-range. Different timing functions were correlated in the ASD group but not among controls, whilst several timing measures correlated with ASD symptoms. We conclude that children with ASD show a broad range of abnormalities in temporal processing tasks including motor timing, perceptual timing, and temporal perspective.

**Database:** Medline

**Journals**

*Advances in Autism*
Resources on the web

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