Current Awareness Bulletin
Autism
DECEMBER 2016
Keeping you up to date with the latest developments in your area

Contents

Up to date journal abstracts
Resources on the web
Library Catalogue
Help select library stock
Links to the latest issues of key journals and their table of contents
Trust Libraries and Staff Contact Details

To go straight to any of the above
Press ctrl and click on the heading of choice.

Current Awareness Bulletins provided by CWPT Library & Knowledge Service are a selection of current/recent articles and publications and are NOT intended to be exhaustive.

Other Current Awareness topics are available; please see our current awareness web page: Current Awareness Bulletins. Please contact staff at any of the four Trust libraries if you would like to be added to the mailing list for any of these monthly bulletins.

FREE Document Delivery Service

Our Document Delivery Service is free of charge for all Trust staff. Full-text of any of the articles listed below is available upon request and can be sent directly to your Email Address or, posted to your workplace.

Just email your nearest Trust Library for more information.
### Autism Spectrum Disorder: Primary Care Principles.

**Author(s):** SANCHACK, KRISTIAN E.; THOMAS, CRAIG A.

**Source:** American Family Physician; Dec 2016; vol. 94 (no. 12); p. 972-980

**Database:** CINAHL


**Author(s):** Ameis, Stephanie H.; Lerch, Jason P.; Taylor, Margot J.; Lee, Wayne; Viviano, Joseph D.; Pipitone, Jon; Nazeri, Arash; Croarkin, Paul E.; Voineskos, Aristotle N.; Lai, Meng-Chuan; Crosbie, Jennifer; Brian, Jessica; Soreni, Noam; Schachar, Russell; Szatmari, Peter; Arnold, Paul D.; Anagnostou, Evdokia

**Source:** American Journal of Psychiatry; Dec 2016; vol. 173 (no. 12); p. 1213-1222

Available in full text at [American Journal of Psychiatry](https://ajp.psychiatryonline.org) - from American Psychiatric Publishing Inc ; Notes: Click on sign in then Log In Via Your Institution and choose Education Centre Library and enter your Athens details

Available in print at [Education Centre Library - Coventry & Warwickshire Partnership NHS Trust](https://www.educcentrecoventry.co.uk) - from American Journal of Psychiatry

**Abstract:** Objective: Neurodevelopmental disorders (NDDs) (attention deficit hyperactivity disorder [ADHD], autism spectrum disorder [ASD], and obsessive-compulsive disorder [OCD]) share genetic vulnerability and symptom domains. The authors present direct comparison of structural brain circuitry in children and adolescents with NDDs and control subjects and examine brain circuit-behavior relationships across NDDs using dimensional measures related to each disorder.

Method: Diffusion imaging and behavioral measures were acquired in 200 children and adolescents (ADHD: N=31; OCD: N=36; ASD: N=71; controls: N=62; mean age range: 10.3-12.6 years). Following Tract-Based Spatial Statistics, multigroup comparison of white matter indices was conducted, followed by pairwise comparisons. Relationships of fractional anisotropy with dimensional measures of inattention, social deficits, obsessive-compulsive symptoms, and general adaptive functioning were conducted across the NDD sample.

Results: Lower fractional anisotropy within the splenium of the corpus callosum was found in each NDD group, compared with the control group. Lower fractional anisotropy in additional white matter tracts was found in the ASD and ADHD groups, compared with the control group, but not in the OCD group. Fractional anisotropy was lower in the ASD and ADHD groups compared with the OCD group but was not different in ADHD participants compared with ASD participants. A positive relation between fractional anisotropy (across much of the brain) and general adaptive functioning across NDDs was shown.

Conclusions: This study identified disruption in interhemispheric circuitry (i.e., fractional anisotropy alterations in the corpus callosum) as a shared feature of ASD, ADHD, and OCD. However,
Fractional anisotropy alterations may be more widespread and severe in ASD and ADHD than in OCD. Higher fractional anisotropy throughout the brain appears to be related to better adaptive function across NDDs.

**Database:** CINAHL

---

**‘Neurotribes – the legacy of autism and how to think smarter about people who think differently’ Steve Silberman.**

**Author(s):** Sawyer, Michael

**Source:** Australasian Psychiatry; Dec 2016; vol. 24 (no. 6); p. 621-621

**Database:** CINAHL

---

**Association between autism symptoms and family functioning in children with attention-deficit/hyperactivity disorder: a community-based study.**

**Author(s):** Green, Jessica; Rinehart, Nicole; Anderson, Vicki; Efron, Daryl; Nicholson, Jan; Jongeling, Brad; Hazell, Philip; Sciberras, Emma

**Source:** European Child & Adolescent Psychiatry; Dec 2016; vol. 25 (no. 12); p. 1307-1318

**Database:** CINAHL

---

**Illuminating the "Black Hole": Aging with Autism Spectrum Disorder.**

**Author(s):** van Heumen, Lieke

**Source:** Gerontologist; Dec 2016; vol. 56 (no. 6); p. 1180-1181

**Database:** CINAHL

---

**Cognitive Mechanisms Underlying Action Prediction in Children and Adults with Autism Spectrum Condition.**

**Author(s):** Schuwerk, Tobias; Sodian, Beate; Paulus, Markus

**Source:** Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3623-3639

**Database:** CINAHL

---

**Reducing Behavior Problems Among Students with Autism Spectrum Disorder: Coaching Teachers in a Mixed-Reality Setting.**

**Author(s):** Pas, Elise; Johnson, Stacy; Larson, Kristine E.; Brandenburg, Linda; Church, Robin; Bradshaw, Catherine

**Source:** Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3640-3652

**Database:** CINAHL

---

**Student-Teacher Relationships for Young Children with Autism Spectrum Disorder: Risk and Protective Factors.**

**Author(s):** Caplan, Barbara; Feldman, Melanie; Eisenhower, Abbey; Blacher, Jan

**Source:** Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3653-3666

**Database:** CINAHL

---

**Cognitive and Adaptive Skills in Toddlers Who Meet Criteria for Autism in DSM-IV but not DSM-5.**

**Author(s):** Jashar, Dasal; Brennan, Laura; Barton, Marianne; Fein, Deborah

**Source:** Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3667-3677

**Database:** CINAHL

---

**Experiences of Sex Education and Sexual Awareness in Young Adults with Autism Spectrum Disorder.**

**Author(s):** Hannah, Laura; Stagg, Steven

**Source:** Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3678-3687

**Database:** CINAHL

---

**The Latent Structure of Autistic Traits: A Taxometric, Latent Class and Latent Profile Analysis of the Adult Autism Spectrum Quotient.**

**Author(s):** James, Richard; Dubey, Indu; Smith, Danielle; Ropar, Danielle; Tunney, Richard

**Source:** Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3688-3698

**Database:** CINAHL

Author(s): Nguyen, Cathina; Krakowiak, Paula; Hansen, Robin; Hertz-Picciotto, Irv; Angkustsiri, Kathleen

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3712-3728

Database: CINAHL

A Replication and Extension of the PEERS® for Young Adults Social Skills Intervention: Examining Effects on Social Skills and Social Anxiety in Young Adults with Autism Spectrum Disorder.

Author(s): McVey, Alana; Dolan, Bridget; Willar, Kirsten; Pleiss, Sheryl; Karst, Jeffrey; Casnar, Christina; Caiozzo, Christina; Vogt, Elisabeth; Gordon, Naki; Hecke, Amy

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3729-3738

Database: CINAHL

Mapping the Network of Neuropsychological Impairment in Children with Autism Spectrum Disorder: A Graph Theoretical Analysis.

Author(s): Ibrahim, George; Morgan, Benjamin; Vogan, Vanessa; Leung, Rachel; Anagnostou, Evdokia; Taylor, Margot

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3770-3777

Database: CINAHL

Sensory Responsiveness in Siblings of Children with Autism Spectrum Disorders.

Author(s): Hilton, Claudia; Babb-Keeble, Alison; Westover, Erin; Zhang, Yi; Adams, Claire; Collins, Diane; Karmarkar, Amol; Reistetter, Timothy; Constantinou, John

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3778-3787

Database: CINAHL

Reduced Mimicry to Virtual Reality Avatars in Autism Spectrum Disorder.

Author(s): Forbes, Paul; Pan, Xueni; C. Hamilton, Antonia

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3788-3797

Database: CINAHL

Reputation Management in Children on the Autism Spectrum.

Author(s): Cage, Eilidh; Bird, Geoffrey; Pellicano, Elizabeth

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3798-3811

Database: CINAHL


Author(s): O'Brien, Amanda; Schlosser, Ralf; Shane, Howard; Abramson, Jennifer; Allen, Anna; Flynn, Suzanne; Yu, Christina; Dimery, Katherine

Source: Journal of Autism & Developmental Disorders; Dec 2016; vol. 46 (no. 12); p. 3818-3823

Database: CINAHL

Community Effectiveness RCT of a Comprehensive Psychosocial Treatment for High-Functioning Children With ASD.

Author(s): Thomeer, Marcus L; Lopata, Christopher; Donnelly, James P; Booth, Adam; Shanahan, Andrew; Federiconi, Veronica; McDonald, Christin A; Rodgers, Jonathan D


Abstract: This community effectiveness randomized clinical trial examined the feasibility and effectiveness of a comprehensive psychosocial treatment, summerMAX, when implemented by a community agency. Fifty-seven high-functioning children (48 male, 9 female), ages 7-12 years with autism spectrum disorder participated in this study.
The 5-week summerMAX treatment included instruction and therapeutic activities targeting social/social-communication skills, interpretation of nonliteral language skills, face-emotion recognition skills, and interest expansion. A behavioral program was also used to increase skills acquisition and decrease autism spectrum disorder symptoms and problem behaviors. Feasibility was supported via high levels of fidelity and parent, child, and staff clinician satisfaction. Significant treatment effects favoring the treatment group over waitlist controls were found on all 5 of the primary outcome measures (i.e., child test of nonliteral language skills and parent ratings of the children’s autism spectrum disorder symptoms, targeted social/social-communication skills, broader social performance, and withdrawal). Staff clinician ratings substantiated the improvements reported by parents. Results of this randomized clinical trial are consistent with those of prior studies of summerMAX and suggest that the program was feasible and effective when implemented by a community agency under real-world conditions.

Database: Medline

**Sensory Clusters of Adults With and Without Autism Spectrum Conditions.**

**Author(s):** Elwin, Marie; Schröder, Agneta; Ek, Lena; Wallsten, Tuula; Kjellin, Lars

**Source:** Journal of autism and developmental disorders; Dec 2016

**Abstract:** We identified clusters of atypical sensory functioning adults with ASC by hierarchical cluster analysis. A new scale for commonly self-reported sensory reactivity was used as a measure. In a low frequency group (n = 37), all subscale scores were relatively low, in particular atypical sensory/motor reactivity. In the intermediate group (n = 17) hyperreactivity, sensory interests and sensory/motor issues were significantly elevated in relation to the first group, but not hyporeactivity. In a high frequency subgroup (n = 17) all subscale scores were significantly elevated and co-occurrence of hyper- and hyporeactivity was evident. In a population sample, a cluster of low scorers (n = 136) and high scorers relative to the other cluster (n = 26) was found. Identification of atypical sensory reactivity is important for targeting support.

Database: Medline

**Moderators of Parent Training for Disruptive Behaviors in Young Children with Autism Spectrum Disorder.**

**Author(s):** Lecavalier, Luc; Smith, Tristram; Johnson, Cynthia; Bearss, Karen; Swiezy, Naomi; Aman, Michael G; Sukhodolsky, Denis G; Deng, Yanhong; Dziura, James; Scehill, Lawrence

**Source:** Journal of abnormal child psychology; Dec 2016

**Abstract:** We conducted a 6 month, randomized trial of parent training (PT) versus a parent education program (PEP) in 180 young children (158 boys, 22 girls), ages 3-7 years, with autism spectrum disorder (ASD). PT was superior to PEP in decreasing disruptive and noncompliant behaviors. In the current study, we assess moderators of treatment response in this trial. Thirteen clinical and demographic variables were evaluated as potential moderators of three outcome variables: the Aberrant Behavior Checklist-Irritability subscale (ABC-I), Home Situations Questionnaire (HSQ), and Clinical Global Impressions-Improvement Scale (CGI-I). We used an intent-to-treat model and random effects regression. Neither IQ nor ASD severity moderated outcome on the selected outcome measures. Severity of Attention Deficit Hyperactivity Disorder (ADHD) and anxiety moderated outcomes on the ABC-I and HSQ. For instance, there was a 6.6 point difference on the ABC-I between high and low ADHD groups (p = .05) and a 5.3 point difference between high and low Anxiety groups (p = .04). Oppositional defiant disorder symptoms and household income moderated outcomes on the HSQ. None of the baseline variables moderated outcome on the CGI-I. That IQ and ASD symptom severity did not moderate outcome suggests that PT is likely to benefit a wide range of children with ASD and disruptive behavior.

Database: Medline

**The effectiveness of an outdoor adventure programme for young children with autism spectrum disorder: a controlled study.**

**Author(s):** Zachor, Ditza A; Vardi, Shira; Baron-Eitan, Shani; Brodai-Meir, Inbal; Ginossar, Noa; Ben-Itzchak, Esther

**Source:** Developmental medicine and child neurology; Dec 2016

**Abstract:** Outdoor adventure programmes aim to improve interpersonal relationships using adventurous activities. The current study examined the effectiveness of an outdoor adventure programme in children with autism spectrum disorders (ASD). The study included 51 participants (40 males, 11 females; age 3y 4mo-7y 4mo) enrolled in ASD special education kindergartens. Only the intervention group (n=30) participated in the outdoor adventure programme for 13 weeks, completing challenging physical activities that required cooperation and communication with peers and instructors. The control group (n=21) was not significantly different from the research group in age,
sex, cognitive, and adaptive behaviour measures. Outcomes after the intervention revealed significant improvement in social-communication and different directions in the two groups in the social cognition, social motivation, and autistic mannerisms subdomains of the Social Responsiveness Scale. While the group that received an outdoor adventure programme showed a tendency toward a reduction in severity, the control group showed the opposite (p<0.010). The outdoor adventure programme required problem-solving skills and forced the child to communicate in exciting situations. This study suggests that an outdoor adventure programme may be an effective intervention in addition to traditional treatments in young children with ASD. Future studies should examine the outcome of outdoor adventure programmes delivered for longer periods of time and maintenance of the achievements over time. © 2016 Mac Keith Press.

**Database:** Medline

**Strategies of readers with autism when responding to inferential questions: An eye-movement study.**

**Author(s):** Micai, Martina; Joseph, Holly; Vulchanova, Mila; Saldaña, David

**Source:** Autism research : official journal of the International Society for Autism Research; Dec 2016

**Abstract:** Previous research suggests that individuals with autism spectrum disorder (ASD) have difficulties with inference generation in reading tasks. However, most previous studies have examined how well children understand a text after reading or have measured on-line reading behavior without response to questions. The aim of this study was to investigate the online strategies of children and adolescents with autism during reading and at the same time responding to a question by monitoring their eye movements. The reading behavior of participants with ASD was compared with that of age-, language-, nonverbal intelligence-, reading-, and receptive language skills-matched participants without ASD (control group). The results showed that the ASD group were as accurate as the control group in generating inferences when answering questions about the short texts, and no differences were found between the two groups in the global paragraph reading and responding times. However, the ASD group displayed longer gaze latencies on a target word necessary to produce an inference. They also showed more regressions into the word that supported the inference compared to the control group after reading the question, irrespective of whether an inference was required or not. In conclusion, the ASD group achieved an equivalent level of inferential comprehension, but showed subtle differences in reading comprehension strategies compared to the control group.

**Database:** Medline

**The impact of caregiver-mediated JASPER on child restricted and repetitive behaviors and caregiver responses.**

**Author(s):** Harrop, Clare; Gulsrud, Amanda; Shih, Wendy; Hovsepyan, Lilit; Kasari, Connie

**Source:** Autism research : official journal of the International Society for Autism Research; Dec 2016

**Abstract:** Restricted and repetitive behaviors (RRBs) are a core feature of autism spectrum disorder (ASD). Compared to the social-communication impairments children show, we know less about why children engage in these repetitive actions and behaviors and how to help children (and their caregivers) with these behaviors. As a result, early intervention has typically focused on social-communication. In this study, we were interested in understanding how child RRBs changed following an intervention that targeted social-communication behaviors and if the training caregivers received changed how they responded to their child's RRBs. Eighty-six toddlers with ASD and their caregivers received one of two interventions: caregivers were either actively coached while playing with their child (JASPER) or attended information sessions about ASD. On three different occasions, caregivers were filmed playing with their child. From these recordings, we looked at child RRBs and how their caregiver responded to these behaviors. Child RRBs did not show much change after 10 weeks of intervention in both groups, but increased when the children returned at 6 months. Caregivers who received one-on-one coaching (JASPER) responded to more of their child's RRBs and these responses were rated as more successful. Our study provides some evidence that a short-term social-communication intervention can lead to "spillover effects" in how caregivers responded to their child's RRBs. Interventions targeting social-communication behaviors should examine how these treatments affect child RRBs and how caregiver responses to these behaviors may change following training.

**Database:** Medline

**Auditory processing in noise is associated with complex patterns of disrupted functional connectivity in autism spectrum disorder.**

**Author(s):** Mamashli, Fahimeh; Khan, Sheraz; Bharadwaj, Hari; Michmizos, Konstantinos; Ganesan, Santosh; Garel, Keri-Lee A; Ali Hashmi, Javeria; Herbert, Martha R; Hämäläinen, Matti; Kenet, Tal

**Source:** Autism research : official journal of the International Society for Autism Research; Dec 2016
Abstract: Autism spectrum disorder (ASD) is associated with difficulty in processing speech in a noisy background, but the neural mechanisms that underlie this deficit have not been mapped. To address this question, we used magnetoencephalography to compare the cortical responses between ASD and typically developing (TD) individuals to a passive mismatch paradigm. We repeated the paradigm twice, once in a quiet background, and once in the presence of background noise. We focused on both the evoked mismatch field (MMF) response in temporal and frontal cortical locations, and functional connectivity with spectral specificity between those locations. In the quiet condition, we found common neural sources of the MMF response in both groups, in the right temporal gyrus and inferior frontal gyrus (IFG). In the noise condition, the MMF response in the right IFG was preserved in the TD group, but reduced relative to the quiet condition in ASD group. The MMF response in the right IFG also correlated with severity of ASD. Moreover, in noise, we found significantly reduced normalized coherence (deviant normalized by standard) in ASD relative to TD, in the beta band (14-25 Hz), between left temporal and left inferior frontal sub-regions. However, unnormalized coherence (coherence during deviant or standard) was significantly increased in ASD relative to TD, in multiple frequency bands. Our findings suggest increased recruitment of neural resources in ASD irrespective of the task difficulty, alongside a reduction in top-down modulations, usually mediated by the beta band, needed to mitigate the impact of noise on auditory processing.

Database: Medline


Author(s): Wozniak, Robert H; Leezenbaum, Nina B; Northrup, Jessie B; West, Kelsey L; Iverson, Jana M
Abstract: The autism spectrum is highly variable, both behaviorally and neurodevelopmentally. Broadly speaking, four related factors contribute to this variability: (1) genetic processes, (2) environmental events, (3) gene × environment interactions, and (4) developmental factors. Given the complexity of the relevant processes, it appears unlikely that autism spectrum atypicalities can be attributed to any one causal mechanism. Rather, the development of neural atypicality reflects an interaction of genetic and environmental risk factors. As the individual grows, changes in neural atypicality, consequent variation in behavior, and environmental response to that behavior may become linked in a positive feedback loop that amplifies deviations from the typical developmental pattern. For further resources related to this article, please visit the WIREs website. © 2016 Wiley Periodicals, Inc.

Database: Medline

Ethiopia: educating everyone about autism.

Author(s): Burton, Adrian
Source: The Lancet. Neurology; Dec 2016; vol. 15 (no. 13); p. 1307-1308
Database: Medline

Epidemiology of autism in adults across age groups and ability levels.

Author(s): Brugha, Traolach S; Spiers, Nicola; Bankart, John; Cooper, Sally-Ann; McManus, Sally; Scott, Fiona J; Smith, Jane; Tyrer, Freya
Source: The British journal of psychiatry : the journal of mental science; Dec 2016; vol. 209 (no. 6); p. 498-503
Available in full text at British Journal of Psychiatry - from EBSCOhost
Available in print at Education Centre Library - Coventry & Warwickshire Partnership NHS Trust - from British Journal of Psychiatry
Abstract: The epidemiology of autism in adults has relied on untested projections using childhood research. To derive representative estimates of the prevalence of autism and key associations in adults of all ages and ability levels. Comparable clinical diagnostic assessments of 7274 Adult Psychiatric Morbidity Survey participants combined with a population case-register survey of 290 adults with intellectual disability. The combined prevalence of autism in adults of all ages in England was 11/1000 (95% CI 3-19/1000). It was higher in those with moderate to profound intellectual disability (odds ratio (OR) = 63.5, 95% CI 27.4-147.2). Male gender was a strong predictor of autism only in those with no or mild intellectual disability (adjusted OR = 8.5, 95% CI 2.0-34.9; interaction with gender, P = 0.03). Few adults with autism have intellectual disability; however, autism is more prevalent in this population. Autism measures may miss more women with autism.

Database: Medline

Behavioral Challenges in Children With Autism and Other Special Needs: The Developmental Approachby
| Diane Cullinane,  
| **Author(s):** LeBel, Janice L  
| **Source:** Psychiatric services (Washington, D.C.); Dec 2016; vol. 67 (no. 12); p. e19  
| **Database:** Medline  
| **Changes in Caregiver Knowledge and Perceived Competency Following Group Education about Sensory Processing Disturbances: An Exploratory Study.**  
| **Author(s):** Gee, Bryan M; Peterson, Theodore W  
| **Source:** Occupational therapy international; Dec 2016; vol. 23 (no. 4); p. 338-345  
| **Abstract:** Parents or teachers (n = 10) of children diagnosed on the autism spectrum and exhibiting sensory processing disorders (SPD) attended a series of six weekly educational sessions designed to increase the participants' knowledge of SPD, skills in interacting with children exhibiting SPD and confidence in intervening with children exhibiting undesirable behaviours stemming from SPD. The sessions consisted of group classroom instruction with instructional methods including PowerPoint-assisted lecture/discussion and short video clips. Pre-test and post-test assessment was made of the participants' (a) self-perceived knowledge of sensory processing concepts; (b) actual knowledge of sensory processing concepts; and (c) self-rated competency for dealing with children exhibiting behaviours related to SPD. Statistical analysis revealed significant gains were achieved on all measures. The results were interpreted as indicating that group classroom instruction is an effective means of increasing such caregivers' self-perceived knowledge of sensory processing concepts, actual knowledge of sensory processing concepts and self-rated competency for dealing with children exhibiting behaviours related to SPD. Future research to assess the short-term and long-term impacts of these gains and to gauge the relative effectiveness of various contents for such sessions is recommended.  
| **Database:** Medline  
| **Microbiome and nutrition in autism spectrum disorder: current knowledge and research needs.**  
| **Author(s):** Berding, Kirsten; Donovan, Sharon M  
| **Source:** Nutrition reviews; Dec 2016; vol. 74 (no. 12); p. 723-736  
| **Available in full text at Nutrition Reviews - from Highwire Press**  
| **Abstract:** Autism spectrum disorder (ASD) is the fastest growing neurodevelopmental disorder in the United States. Besides genetic risks, environmental factors have been suggested to contribute to the increase in ASD diagnosis over the past decade. Several studies have reported abnormalities in microbiota composition and differences in microbial metabolites in children with ASD. Gastrointestinal discomfort is commonly reported in children with ASD. Additionally, food selectivity and picky eating patterns are commonly reported. A number of mechanisms underlying the interaction between nutrition, the gut microbiota, and ASD symptoms via the microbiota-gut-brain axis have been proposed, including immune, hormonal, or neuronal pathways. Here, the current evidence base regarding the gut environment and nutritional status of children with ASD is reviewed. Potential underlying mechanisms of the microbiota-gut-brain axis in ASD and the interplay between nutrition, microbiota, and ASD symptoms are also reviewed. Future studies investigating the microbiota in the context of dietary intake are needed to increase understanding of the interplay between diet and the gut microbiota in ASD and to identify potential dietary, probiotic, or prebiotic intervention strategies.  
| **Database:** Medline  
| **Brain oscillations and connectivity in autism spectrum disorders (ASD): new approaches to methodology, measurement and modelling.**  
| **Author(s):** Kessler, K; Seymour, R A; Rippon, G  
| **Source:** Neuroscience and biobehavioral reviews; Dec 2016; vol. 71 ; p. 601-620  
| **Abstract:** Although atypical social behaviour remains a key characterisation of ASD, the presence of sensory and perceptual abnormalities has been given a more central role in recent classification changes. An understanding of the origins of such aberrations could thus prove a fruitful focus for ASD research. Early neurocognitive models of ASD suggested that the study of high frequency activity in the brain as a measure of cortical connectivity might provide the key to understanding the neural correlates of sensory and perceptual deviations in ASD. As our review shows, the findings from subsequent research have been inconsistent, with a lack of agreement about the nature of any high frequency disturbances in ASD brains. Based on the application of new techniques using more sophisticated measures of brain synchronisation, direction of information flow, and invoking the coupling between high and low
<table>
<thead>
<tr>
<th>Article Title</th>
<th>Author(s)</th>
<th>Source</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variability of cortical oscillation patterns: A possible endophenotype in autism spectrum disorders?</td>
<td>David, Nicole; Schneider, Till R; Peiker, Ina; Al-Jawahiri, Reem; Engel, Andreas K; Milne, Elizabeth</td>
<td>Neuroscience and biobehavioral reviews; Dec 2016; vol. 71; p. 590-600</td>
<td>Autism spectrum disorders (ASD) have been associated with altered neural oscillations, especially fast oscillatory activity in the gamma frequency range, suggesting fundamentally disturbed temporal coordination of activity during information processing. A detailed review of available cortical oscillation studies in ASD does not convey a clear-cut picture with respect to dysfunctional oscillation patterns in the gamma or other frequency ranges. Recent evidence suggests that instead of a general failure to activate or synchronize the cortex, there is greater intra-participant variability across behavioral, fMRI and EEG responses in ASD. Intra-individual fluctuations from one trial to another have been largely ignored in task-related neural oscillation studies of ASD, which instead have focused on mean changes in power. We highlight new avenues for the analysis of cortical oscillation patterns in ASD which are sensitive to trial-to-trial variability within the participant, in order to validate the significance of increased response variability as possible endophenotype of the disorder.</td>
</tr>
<tr>
<td>Verbal Thinking and Inner Speech Use in Autism Spectrum Disorder.</td>
<td>Williams, David M; Peng, Cynthia; Wallace, Gregory L</td>
<td>Neuropsychology review; Dec 2016; vol. 26 (no. 4); p. 394-419</td>
<td>The extent to which cognition is verbally mediated in neurotypical individuals is the subject of debate in cognitive neuropsychology, as well as philosophy and psychology. Studying &quot;verbal thinking&quot; in developmental/neuropsychological disorders provides a valuable opportunity to inform theory building, as well as clinical practice. In this paper, we provide a comprehensive, critical review of such studies among individuals with autism spectrum disorder (ASD). ASD involves severe social-communication deficits and limitations in cognitive/behavioural flexibility. The prevailing view in the field is that neither cognition nor behaviour is mediated verbally in ASD, and that this contributes to diagnostic features. However, our review suggests that, on the contrary, most studies to date actually find that among people with ASD cognitive task performance is either a) mediated verbally in a typical fashion, or b) not mediated verbally, but at no obvious cost to overall task performance. Overall though, these studies have methodological limitations and thus clear-cut conclusions are not possible at this stage. The aim of the review is to take stock of existing empirical findings, as well as to help develop the directions for future research that will resolve the many outstanding issues in this field.</td>
</tr>
<tr>
<td>Possible neuronal mechanisms of sleep disturbances in patients with autism spectrum disorders and attention-deficit/hyperactivity disorder.</td>
<td>Kohyama, Jun</td>
<td>Medical hypotheses; Dec 2016; vol. 97; p. 131-133</td>
<td>The most common form of sleep disturbance among both patients with autism spectrum disorders and patients with attention-deficit/hyperactivity disorder is sleep-onset insomnia, but the neuronal mechanisms underlying it have yet to be elucidated and no specific treatment strategy has been proposed. This means that many caregivers struggle to manage this problem on a daily basis. This paper presents a hypothesis about the neuronal mechanisms underlying insomnia in patients with autism spectrum disorders and attention-deficit/hyperactivity disorder based on recent clinical and basic research. It is proposed that three neuronal mechanisms (increased orexinergic system activity, reduced 5-hydroxytryptamine and melatonergic system activity, rapid eye movement sleep reduction) are involved in insomnia in both autism spectrum disorders and attention-deficit/hyperactivity disorder. This suggests that antagonists against the orexin receptors may have beneficial effects on insomnia in patients with autism spectrum disorders or attention-deficit/hyperactivity disorder. To the best of the author’s knowledge there has been no research into the effects of this agent on insomnia in these patient groups. Large, controlled trials should be carried out.</td>
</tr>
</tbody>
</table>
From molecules to behavior: An integrative theory of autism spectrum disorder.

Author(s): Niculae, Alexandru-Ştefan; Pavăl, Denis

Source: Medical hypotheses; Dec 2016; vol. 97; p. 74-84

Abstract: Autism spectrum disorder (ASD) comprises a group of neurodevelopmental disorders for which various theories have been proposed. Each theory brings valuable insights and has experimental evidence backing it, yet none provides an overarching explanation for each of the pathological aspects involved in ASD. Here we present an integrative theory of ASD, centered on a sequence of events spanning from the molecular to the behavioral level. We propose that an abnormality in the interplay between retinoic acid and sex hormones predisposes an individual to specific molecular malfunctions. In turn, this molecular syndrome generates an altered brain connectivity between the cerebellum, the midbrain dopaminergic areas, and the prefrontal cortex. Lastly, this disconnection would generate specific behavioral traits traditionally involved in ASD. Therefore, this paper represents a step forward in unifying different levels of pathological features into novel integrated testable hypotheses.

Database: Medline


Author(s): Ryan, Christian; Stafford, Martina; King, Robert James

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3838-3843

Abstract: Faces are one of the most socially significant visual stimuli encountered in the environment, whereas pareidolias are illusions of faces arising from ambiguous stimuli in the environment. Autism spectrum disorder (ASD) is characterised by deficits in response to social stimuli. We found that children with ASD (n = 60) identify significantly fewer pareidolic faces in a sequence of ambiguous stimuli than typically developing peers. The two groups did not differ in the number of objects identified, indicating that the children with ASD had a specific lack of attention to faces. Pareidolia have considerable potential as naturalistic and easy-to-create materials for the investigation of spontaneous attention to social stimuli in children with ASD.

Database: Medline


Author(s): Roberts, Jane E; Tonnsen, Bridgette L; McCary, Lindsay M; Caravella, Kelly E; Shinkareva, Svetlana V

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3830-3837

Abstract: Fragile X syndrome (FXS) is the most common known genetic cause of autism spectrum disorder (ASD). Although 50-75% of children with FXS meet ASD criteria, no studies have compared ASD symptoms in infants with FXS versus other high risk groups, such as siblings of children with ASD (ASIBs). Using the Autism Observation Scale for Infants, our findings indicate that 53% of 12-month infants with FXS fall in the "at risk" category compared to 17 and 6% for age-matched ASIBs and controls, respectively. Elevated atypical motor behaviors were associated with elevated risk for FXS. Cross-syndrome comparisons are essential to understanding the heterogeneity of ASD and identifying candidate markers that will facilitate differential diagnosis of ASD in genetic disorders such as FXS.

Database: Medline

Reputation Management in Children on the Autism Spectrum.

Author(s): Cage, Eilidh; Bird, Geoffrey; Pellicano, Elizabeth

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3798-3811

Abstract: Being able to manage reputation is an important social skill, but it is unclear whether autistic children can manage reputation. This study investigated whether 33 autistic children matched to 33 typical children could implicitly or explicitly manage reputation. Further, we examined whether cognitive processes-theory of mind, social motivation, inhibitory control and reciprocity-contribute to reputation management. Results showed that neither group implicitly managed reputation, and there was no group difference in explicit reputation management. Results suggested different mechanisms contribute to reputation management in these groups-social motivation in typical children and reciprocity in autistic children. Explicit reputation management is achievable for autistic children, and there are individual differences in its relationship to underlying cognitive processes.

Database: Medline

Sensory Responsiveness in Siblings of Children with Autism Spectrum Disorders.

Author(s): Hilton, Claudia L; Babb-Keeble, Alison; Westover, Erin Eitzmann; Zhang, Yi; Adams, Claire; Collins, Diane M;
Karmarkar, Amol; Reistetter, Timothy A; Constantino, John N

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3778-3787

Abstract: This study examined sensory responsiveness in unaffected siblings of children with autism spectrum disorder (ASD) and associations between sensory responsiveness and social severity. Sensory Profile Caregiver Questionnaires and Social Responsiveness Scales were completed by parents of 185 children between age 4 and 10.95 years. Significant differences were found between participants with ASD and controls, and between participants with ASD and unaffected siblings for all sensory quadrants and domains, but not between controls and unaffected siblings. Social responsiveness scores were significantly correlated with scores from most sensory profile categories. Sensory responsiveness as an endophenotype of ASD is not indicated from these findings; however, studies with larger numbers of unaffected siblings and controls are needed to confirm the null hypothesis.

Database: Medline

Experiences of Sex Education and Sexual Awareness in Young Adults with Autism Spectrum Disorder.

Author(s): Hannah, Laura A; Stagg, Steven D

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3678-3687

Abstract: The research investigated feelings towards sex education and sexual awareness in young adults with autism spectrum disorder (ASD). Data were generated from the sexual knowledge, experiences, feelings and needs questionnaire (McCabe et al. 1999), the sexual awareness questionnaire (Snell et al. 1991) and semi-structured interviews. Twenty typically developing and 20 ASD individuals participated. Feelings toward sex education did not differ between the groups, but the groups differed significantly on measures of sexual awareness. Negative experiences of sex education and issues of vulnerability, social anxiety, and confused sexuality were prominent features of the qualitative interviews. This report suggest that mainstream sex and relationship education is not sufficient for people with ASD, specific methods and curricular are necessary to match their needs.

Database: Medline

Student-Teacher Relationships for Young Children with Autism Spectrum Disorder: Risk and Protective Factors.

Author(s): Caplan, Barbara; Feldman, Melanie; Eisenhower, Abbey; Blacher, Jan

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3653-3666

Abstract: The quality of early student-teacher relationships (STRs) has been shown to predict children's school adjustment, and children with autism spectrum disorder (ASD) are at risk for poor quality STRs. The present study examined 162 children with ASD (ages 4-7) and their teachers to evaluate student, teacher, and classroom characteristics that predicted concurrent and prospective STR quality across one school year. Child oppositional behavior, autism severity and teacher degree predicted changes in student-teacher conflict over a 1-year period, while child social skills and IQ positively predicted change in student-teacher closeness. Teacher preparedness, trainings in ASD, and classroom setting were unrelated to STR quality. Implications for intervention are discussed.

Database: Medline


Author(s): Pas, Elise T; Johnson, Stacy R; Larson, Kristine E; Brandenburg, Linda; Church, Robin; Bradshaw, Catherine P

Source: Journal of autism and developmental disorders; Dec 2016; vol. 46 (no. 12); p. 3640-3652

Abstract: Most approaches aiming to reduce behavior problems among youth with Autism Spectrum Disorder (ASD) focus on individual students; however, school personnel also need professional development to better support students. This study targeted teachers' skill development to promote positive outcomes for students with ASD. The sample included 19 teachers in two non-public special education settings serving students with moderate to severe ASD. Participating teachers received professional development and coaching in classroom management, with guided practice in a mixed-reality simulator. Repeated-measures ANOVAs examining externally-conducted classroom observations revealed statistically significant improvements in teacher management and student behavior over time. Findings suggest that coaching and guided practice in a mixed-reality simulator is perceived as acceptable and may reduce behavior problems among students with ASD.

Database: Medline

Author(s): Wachob, David; Pesci, Louis J

Source: Journal of autism and developmental disorders; Dec 2016

Abstract: In order to best respond to an emergency situation, professionals need to have an understanding about Autism Spectrum Disorder (ASD) and techniques that will ensure proper care. The purpose of this study was to determine the knowledge and confidence of EMS personnel on interacting and treating an individual with ASD. Emergency Medical Technicians (EMT), and Paramedics were surveyed on their knowledge of ASD; familiarity or experience with ASD, and level of comfort responding to emergencies involving an individual with ASD. The results found that autism-specific training and resources were associated with higher comfort levels, but not knowledge. It was also determined that newer and younger professionals had higher knowledge and comfort when compared to the more experienced and older professionals.

Database: Medline

An evaluation of photographic activity schedules to increase independent playground skills in young children with autism.

Author(s): Akers, Jessica S; Higbee, Thomas S; Pollard, Joy S; Pellegrino, Azure J; Gerencser, Kristina R

Source: Journal of applied behavior analysis; Dec 2016; vol. 49 (no. 4); p. 954-959

Abstract: We used photographic activity schedules to increase the number of play activities completed by children with autism during unstructured time on the playground. All 3 participants engaged in more playground activities during and after training, and they continued to complete activities when novel photographs were introduced. © 2016 Society for the Experimental Analysis of Behavior.

Database: Medline

Response time variability under slow and fast-incentive conditions in children with ASD, ADHD and ASD+ADHD.

Author(s): Tye, Charlotte; Johnson, Katherine A; Kelly, Simon P; Asherson, Philip; Kuntsi, Jonna; Ashwood, Karen L; Azadi, Bahare; Bolton, Patrick; McLoughlin, Gráinne

Source: Journal of child psychology and psychiatry, and allied disciplines; Dec 2016; vol. 57 (no. 12); p. 1414-1423

Abstract: Attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) show significant behavioural and genetic overlap. Both ADHD and ASD are characterised by poor performance on a range of cognitive tasks. In particular, increased response time variability (RTV) is a promising indicator of risk for both ADHD and ASD. However, it is not clear whether different indices of RTV and changes to RTV according to task conditions are able to discriminate between the two disorders. Children with ASD (n = 19), ADHD (n = 18), ASD + ADHD (n = 29) and typically developing controls (TDC; n = 26) performed a four-choice RT task with slow-baseline and fast-incentive conditions. Performance was characterised by mean RT (MRT), standard deviation of RT (SD-RT), coefficient of variation (CV) and ex-Gaussian distribution measures of Mu, Sigma and Tau. In the slow-baseline condition, categorical diagnoses and trait measures converged to indicate that children with ADHD-only and ASD + ADHD demonstrated increased MRT, SD-RT, CV and Tau compared to TDC and ASD-only. Importantly, greater improvement in MRT, SD-RT and Tau was demonstrated in ADHD and ASD + ADHD from slow-baseline to fast-incentive conditions compared to TDC and ASD-only. Slower and more variable RTs are markers of ADHD compared to ASD and typically developing controls during slow and less rewarding conditions. Energetic factors and rewards improve task performance to a greater extent in children with ADHD compared to children with ASD. These findings suggest that RTV can be distinguished in ASD, ADHD and ASD + ADHD based on the indices of variability used and the conditions in which they are elicited. Further work identifying neural processes underlying increased RTV is warranted, in order to elucidate disorder-specific and disorder-convergent aetiological pathways.

Database: Medline

The use of matrix training to promote generative language with children with autism.

Author(s): Frampton, Sarah E; Wymer, Sarah C; Hansen, Bethany; Shillingsburg, M Alice

Source: Journal of applied behavior analysis; Dec 2016; vol. 49 (no. 4); p. 869-883

Abstract: Matrix training consists of planning instruction by arranging components of desired skills across 2 axes. After training with diagonal targets that each combine 2 unique skill components, responses to nondiagonal targets, consisting of novel combinations of the components, may emerge. A multiple-probe design across participants was
used to evaluate matrix training with known nouns (e.g., cat) and verbs (e.g., jumping) with 5 children with autism spectrum disorders (ASD). Following baseline of Matrix 1 and a generalization matrix, diagonal targets within Matrix 1 were trained as noun-verb combinations (e.g., cat jumping). Posttests showed recombinative generalization within Matrix 1 and the generalization matrix for 4 participants. For 1 participant, diagonal training across multiple matrices was provided until correct responding was observed in the generalization matrix. Results support the use of matrix training to promote untrained responses for learners with ASD and offer a systematic way to evaluate the extent of generalization within and across matrices.

Database: Medline

The effects of intertrial interval and instructional format on skill acquisition and maintenance for children with autism spectrum disorders.

Author(s): Cariveau, Tom; Kodak, Tiffany; Campbell, Vincent

Source: Journal of applied behavior analysis; Dec 2016; vol. 49 (no. 4); p. 809-825

Abstract: We replicated and extended the study by Koegel, Dunlap, and Dyer (1980) by examining the effects of 3 intertrial-interval (ITI) durations on skill acquisition in 2 children with autism spectrum disorders. Specifically, we compared the effect of short (2 s), progressive (2 s to 20 s), and long (20 s) ITIs on participants' mastery of tacts or intraverbals presented in massed-trial and varied-trial instructional formats. We also measured (a) stereotypic and problem behavior during the ITI, (b) maintenance of skills, and (c) responding to novel adults and settings. Results showed that short ITIs in a varied-trial format produced the most efficient acquisition of skills; however, most ITI durations produced more efficient skill acquisition in a varied format compared to a massed format. The trial format and ITI duration associated with the lowest levels of stereotypic and problem behavior during the ITI and responding during maintenance and novel adult and setting probes differed across participants.

Database: Medline


Author(s): Green, Jessica L; Rinehart, Nicole; Anderson, Vicki; Efron, Daryl; Nicholson, Jan M; Jongeling, Brad; Hazell, Philip; Sciberras, Emma

Source: European child & adolescent psychiatry; Dec 2016; vol. 25 (no. 12); p. 1307-1318

Abstract: Autism spectrum disorder (ASD) symptoms are elevated in populations of children with attention-deficit/hyperactivity disorder (ADHD). This study examined cross-sectional associations between ASD symptoms and family functioning in children with and without ADHD. Participants were recruited to a longitudinal cohort study, aged 6-10 years (164 ADHD; 198 controls). ADHD cases were ascertained using community-based screening and diagnostic confirmation from a diagnostic interview. ASD symptoms were measured using the Social Communication Questionnaire. Outcome variables were parent mental health, family quality of life (FQoL), couple conflict and support, and parenting behaviours. After adjustment for a range of child and family factors (including other mental health comorbidities), higher ASD symptoms were associated with poorer FQoL across all three domains; emotional impact (p = 0.008), family impact (p = 0.001) and time impact (p = 0.003). In adjusted analyses by subgroup, parents of children with ADHD+ASD had poorer parent self-efficacy (p = 0.01), poorer FQoL (p ≤ 0.05), with weak evidence of an association for less couple support (p = 0.06), compared to parents of children with ADHD only. Inspection of covariates in the adjusted analyses indicated that the association between ASD symptoms and most family functioning measures was accounted for by child internalising and externalising disorders, ADHD severity, and socioeconomic status; however, ASD symptoms appear to be independently associated with poorer FQoL in children with ADHD. The presence of ASD symptoms in children with ADHD may signal the need for enhanced family support.

Database: Medline

Attentional network deficits in children with autism spectrum disorder.

Author(s): Mutreja, Rachna; Craig, Curtis; O'Boyle, Michael W

Source: Developmental neurorehabilitation; Dec 2016; vol. 19 (no. 6); p. 389-397

Abstract: Individuals with autism spectrum disorder (ASD) often demonstrate deficient attentional ability, but the specific nature of the deficit is unclear. The Attention Networks model provides a useful approach to deconstruct this attentional deficit into its component parts. Fifty-two neurotypical (NT) children and 14 children with ASD performed the child version of the Attention Network Test (ANT). The latter requires participants to indicate the direction of a centre target stimulus, which is presented above/below fixation and sometimes flanked by either congruent or incongruent distractor stimuli. Relative to NT children, those with ASD were: (1) slower to react to spatially cued trials
and (2) more error prone on executive (conflict) attention trials. Young children with ASD have intact alerting attention, but less-efficient orienting and executive attention.

**Elevated Autism Spectrum Disorder Traits in Young Children with OCD.**

**Author(s):** Stewart, Elyse; Cancilliere, Mary Kathryn; Freeman, Jennifer; Wellen, Brianna; Garcia, Abbe; Sapyta, Jeffrey; Franklin, Martin

**Source:** Child psychiatry and human development; Dec 2016; vol. 47 (no. 6); p. 993-1001

**Abstract:** Studies have shown a high prevalence of autistic spectrum traits in both children and adults with psychiatric disorders; however the prevalence rate has not yet been investigated in young children with OCD. The aim of the current study was to (1) determine whether ASD traits indicated by the Social Communication Questionnaire (SCQ) and the Social Responsiveness Scale (SRS) were elevated in young children with OCD who do not have a specific ASD diagnosis and (2) determine if ASD traits were associated with OCD severity. Participants (N = 127) were children ages 5-8 years enrolled in the pediatric obsessive-compulsive disorder treatment study for young children (POTS Jr.). Results indicated that the SRS showed elevated autistic traits in the sample and was associated with OCD severity whereas the SCQ did not indicate heightened ASD symptoms. Implications of these results are discussed.

**Database:** Medline

**Wanting it Too Much: An Inverse Relation Between Social Motivation and Facial Emotion Recognition in Autism Spectrum Disorder.**

**Author(s):** Garman, Heather D; Spaulding, Christine J; Webb, Sara Jane; Mikami, Amori Yee; Morris, James P; Lerner, Matthew D

**Source:** Child psychiatry and human development; Dec 2016; vol. 47 (no. 6); p. 890-902

**Abstract:** This study examined social motivation and early-stage face perception as frameworks for understanding impairments in facial emotion recognition (FER) in a well-characterized sample of youth with autism spectrum disorders (ASD). Early-stage face perception (N170 event-related potential latency) was recorded while participants completed a standardized FER task, while social motivation was obtained via parent report. Participants with greater social motivation exhibited poorer FER, while those with shorter N170 latencies exhibited better FER for child angry faces stimuli. Social motivation partially mediated the relationship between a faster N170 and better FER. These effects were all robust to variations in IQ, age, and ASD severity. These findings augur against theories implicating social motivation as uniformly valuable for individuals with ASD, and augment models suggesting a close link between early-stage face perception, social motivation, and FER in this population. Broader implications for models and development of FER in ASD are discussed.

**Database:** Medline

**An Evaluation of Positional Prompts for Teaching Receptive Identification to Individuals Diagnosed with Autism Spectrum Disorder.**

**Author(s):** Leaf, Justin B; Cihon, Joseph H; Townley-Cochran, Donna; Miller, Kevin; Leaf, Ronald; McEachin, John; Taubman, Mitchell

**Source:** Behavior analysis in practice; Dec 2016; vol. 9 (no. 4); p. 349-363

**Abstract:** In this study, we evaluated the effects of positional prompts on teaching receptive identification to six children diagnosed with autism spectrum disorder (ASD). The researchers implemented a most-to-least prompting system using a three level hierarchy to teach receptive picture identification. Within the prompting hierarchy, only positional prompts were used. The most assistive prompt was placing the target stimulus 12 in. closer to the participant, the less assistive prompt was placing the target stimulus 6 in. closer to the participant, and no prompt was placing the target stimulus in line with the alternative stimuli. A non-concurrent multiple baseline design across behaviors was used to evaluate the effectiveness of the positional prompt. Results indicated that the implementation of positional prompts resulted in participants reaching mastery criterion and maintaining skills at follow-up for the majority of the participants. The results of the study have both future clinical and research implications.

**Database:** Medline

**Emotional and behavioral functioning of typically-developing sisters of children with autism spectrum disorder: The roles of ASD severity, parental stress, and marital status**

**Author(s):** Tomeny, Theodore S.; Baker, Lorien K.; Barry, Tammy D.; Eldred, Sophia W.; Rankin, James A.
**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32 ; p. 130-142

**Abstract:** Background: Research has shown varied outcomes for typically-developing (TD) siblings of children with autism spectrum disorder (ASD), suggesting that some emotional and behavioral difficulties may occur only under specific conditions. In addition to characteristics of the children with ASD, family contextual factors may also predict sibling adjustment. Method: This study examined parent marital status and parental stress as moderators of the relation between ASD siblings’ symptom severity and emotional and behavioral adjustment in 56 TD sisters via self-and parent-report. Results: At moderate and high levels of parental stress, TD sisters with siblings with relatively severe ASD symptomatology and with unmarried parents reported the highest levels of emotional and behavioral difficulties. Yet, TD sisters with siblings with relatively less severe ASD symptomatology and with unmarried parents reported the lowest levels of challenging behaviors and emotional symptoms. Conclusions: These findings indicate that clinicians treating families of children with relatively severe ASD and unmarried parents should be particularly cognizant of the functioning of TD sisters.

**Database:** PsycINFO

---

**Influences on the psychosocial adjustment of siblings of children with autism spectrum disorder in Taiwan and the United Kingdom**

**Author(s):** Tsai, Hsiao-Wei Joy; Cebula, Katie; Fletcher-Watson, Sue

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32 ; p. 115-129

**Abstract:** Background: The present paper examined the psychosocial adjustment of typically developing (TD) siblings of children with ASD and the extent to which this is impacted by key demographic and psychosocial variables. A cross-cultural perspective was adopted to compare influences on coping and adjustment in Taiwan and the United Kingdom (UK). Method: 155 mother-TD sibling dyads participated, 80 in Taiwan and 75 in the UK. Participants reported by questionnaire on family demographics, symptom severity of the child with ASD, TD siblings’ life events, subjective well-being, social support, coping strategies, parent and sibling Broader Autism Phenotype (BAP) level and adjustment outcome. Results: According to their self-report, TD siblings’ in Taiwan were fairly well adjusted, while slightly elevated difficulties were found in the UK sample, with peer problems the biggest concern. Impact of life experience, sibling coping, and social support were related to adjustment in both countries, but with different coping styles important in the two countries. In the UK, parents’ coping style and siblings’ own BAP level also contributed to outcome. Some differences between Taiwan and the UK samples may result from culturally-specific patterns in evaluation of child behaviours. Conclusions: The findings from this large-scale questionnaire study have implications for clinical practice. UK siblings’ adjustment might be enhanced via intervention on parent coping style, while Taiwanese siblings may be better supported through promotion of their own coping. Health professionals should be aware of the influence of BAP levels in parents and TD siblings, which might change the way they experience stress and respond under pressure.

**Database:** PsycINFO

---

**Parental maltreatment of children with autism spectrum disorder: A developmental-ecological analysis**

**Author(s):** Chan, Kevin Ka Shing; Lam, Chun Bun

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32 ; p. 106-114

**Abstract:** Background: Although children with autism spectrum disorder (ASD) are more likely to be exposed to harsh parental discipline, research on this issue is scarce. In particular, few studies have examined the risk factors for harsh parental discipline in this population. We responded to this gap in the literature by testing multiple individual and environmental factors as potential predictors of parental psychological aggression and physical assault toward children with ASD. Guided by a developmental-ecological perspective, we hypothesized that harsh parental discipline would be shaped by the characteristics of the child (symptom severity), the parent (parenting stress), the family (economic pressure), and the broader context (discrimination in the community). Method: A total of 424 Hong Kong parents of children with ASD completed standardized questionnaires. The hypotheses were tested using bivariate correlation and multivariate regression analyses. Results: At the bivariate level, child symptom severity, parenting stress, family economic pressure, and experienced discrimination were positively associated with parental psychological aggression. Moreover, child symptom severity and parenting stress were positively associated with parental physical assault. At the multivariate level, parenting stress was significantly related to psychological aggression, while child symptom severity and parenting stress were significantly related to physical assault. Mediation analyses further demonstrated that psychological aggression partially mediated the effect of parenting stress on physical assault. Conclusions: Theoretically, our findings contributed to our understanding of the origin of harsh parenting practices toward children with ASD. Practically, our findings provided insights about ways to identify
high-risk families and to develop effective child maltreatment intervention programs.

**Database:** PsycINFO

**Can we accelerate autism discoveries through crowdsourcing?**

**Author(s):** David, Maude M.; Babineau, Brooke A.; Wall, Dennis P.

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32 ; p. 80-83

**Abstract:** Autism is a dramatically expanding public health challenge. The search for genomic variants underlying the disease concomitantly accelerated over the last 5 years, leading to a general consensus that genetics can explain between 40% and 60% of the symptomatic variability seen in autism. This stresses both an urgent need to continue devoting resources to the search for genetic etiologies that define the forms of autism, and an equal need for attention to the interactive roles of the environment. While some environmental factors have been investigated, few studies have attempted to elucidate the combination and interplay between gene and environment to gain clear understanding of the mechanisms by which environmental factors interact with genetic susceptibilities in Autism Spectrum Disorder. Due to financial constraints as well as recruitment protocols limited by geography, such studies have been challenging to implement. We discuss here how crowdsourcing approaches can overcome these limitations.

**Database:** PsycINFO

**The relationship between peer victimization and the psychological characteristics of youth with autism spectrum disorder**

**Author(s):** Ung, Danielle; McBride, Nicole; Collier, Amanda; Selles, Robert; Small, Brent; Phares, Vicky; Storch, Eric

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32 ; p. 70-79

**Abstract:** Background: Youth with autism spectrum disorder (ASD) are frequently victimized. Acts of peer victimization of youth with ASD can lead to the development of detrimental and maladaptive behavioral problems. The purpose of this study is to examine the relationship between peer victimization and the psychological characteristics of youth with ASD. Method: Study participants were 81 school-aged youth with ASD between the ages of 9 and 17 years and had an intelligence quotient (IQ)≥70 and their parents. Participants completed questionnaires examining the frequency of peer victimization and clinical characteristics of the youth. Results: Victimization had a significant positive relationship with child’s loneliness and anxiety and depressive symptoms, and a significant negative relationship with social skills. The relationship between victimization and these symptoms did not significantly vary as a function of social support. The relationship between victimization and social avoidance was not mediated by a fear of negative evaluation. Conclusions: These results may assist in identifying risk factors for peer victimization in youth with ASD and may help to shape treatment protocols by targeting the associated factors of peer victimization (e.g., anxiety and depressive symptoms, social skill deficits)

**Database:** PsycINFO

**Comprehension and generation of metaphors by children with autism spectrum disorder**

**Author(s):** Kasirer, Anat; Mashal, Nira

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32 ; p. 53-63

**Abstract:** Background: Autism spectrum disorders (ASD) are often associated with reduced figurative language processing. However, recent findings suggest that individuals with ASD are not necessarily impaired in comprehension and generation of novel metaphors relative to typically developing (TD) individuals. The current study expands previous research (Kasirer & Mashal, 2014) findings by examining the comprehension and the generation of metaphors in children with ASD. Method: The sample included 34 children with ASD and 39 TD age–matched peers (aged 9–16). A multiple-choice questionnaire consisting of conventional and novel metaphors was used to assess metaphoric comprehension; a concept explanation task was used to test conventional and novel metaphor generation. Results: The results indicate that the ASD group understood fewer conventional metaphors than their TD peers. However, no group differences were observed in novel metaphor comprehension task. Furthermore, whereas participants with ASD generated less conventional metaphors they generated more creative and novel metaphors. Conclusion: These findings suggest a unique style of thinking with regard to verbal creativity in ASD which occurs already in childhood.

**Database:** PsycINFO

**A qualitative study of noise sensitivity in adults with autism spectrum disorder**
**Are emotion recognition abilities related to everyday social functioning in ASD? A meta-analysis**

**Author(s):** Trevisan, Dominic A.; Birmingham, Elina

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32; p. 24-42

**Abstract:** Background: Most developmental theories of autism spectrum disorders (ASD) emphasize a link between the ability to infer others’ emotional states with their everyday social functioning. However, rarely has this association been empirically examined in this population. Methods: We conducted a meta-analysis to quantitatively summarize correlations between performance on facial emotion recognition tasks and theoretically related variables broadly related to social functioning and other cognitive abilities. Results: Sixty-two correlation coefficients from 27 separate articles met our inclusion criteria. Correlations between the ability to recognize facial expressions (FER) and each category of variables were moderate but significant in the expected direction. FER was positively correlated with age, nonverbal and verbal intelligence, Theory of Mind, and adaptive functioning, and negatively correlated with alexithymia and higher ASD symptoms. Conclusions: The findings of this meta-analysis indicate that FER abilities represent an important social cognitive ability given its relation to real-world social behavior and other characteristics and cognitive abilities. However, the striking lack of studies in this area calls for more research to gain a clearer understanding of the developmental significance of FER, especially in relation to the broader social impairment characteristic of ASD.

**Database:** PsycINFO

**Social anxiety in adult males with autism spectrum disorders**

**Author(s):** Spain, Debbie; Happé, Francesca; Johnston, Patrick; Campbell, Malcolm; Sin, Jacqueline; Daly, Eileen; Ecker, Christine; Anson, Martin; Chaplin, Eddie; Glaser, Karen; Mendez, Andreina; Lovell, Karina; Murphy, Declan G.

**Source:** Research in Autism Spectrum Disorders; Dec 2016; vol. 32; p. 13-23

**Abstract:** Background: Psychiatric conditions, notably anxiety, commonly co-occur with autism spectrum disorders (ASD). Method: This study investigated self-reported behavioural, cognitive and affective symptoms of social anxiety (SA) in 50 adult males with ASD. Associations between SA, core ASD symptoms and facets of neuropsychological functioning were also examined. Results: Twenty-six participants (52%) endorsed levels of SA that exceeded the suggested caseness threshold for social anxiety disorder. Categorical and dimensional data analyses indicated that there were no relationships between SA symptoms, present-state or childhood ASD symptom-severity, or measures of socio-emotional processing in this sample. Conclusions: Study findings suggest that severity of SA is not merely a reflection of ASD symptom-severity. Further research is needed to ascertain the prevalence of SA in adult ASD epidemiological samples, and identify causal and maintaining mechanisms for these co-morbid symptoms.

**Database:** PsycINFO

**Verbal thinking and inner speech use in autism spectrum disorder**

**Author(s):** Williams, David M.; Peng, Cynthia; Wallace, Gregory L.

**Source:** Neuropsychology Review; Dec 2016; vol. 26 (no. 4); p. 394-419

**Abstract:** The extent to which cognition is verbally mediated in neurotypical individuals is the subject of debate in cognitive neuropsychology, as well as philosophy and psychology. Studying "verbal thinking" in developmental/neuropsychological disorders provides a valuable opportunity to inform theory building, as well as
Clinical practice. In this paper, we provide a comprehensive, critical review of such studies among individuals with autism spectrum disorder (ASD). ASD involves severe social-communication deficits and limitations in cognitive/behavioural flexibility. The prevailing view in the field is that neither cognition nor behaviour is mediated verbally in ASD, and that this contributes to diagnostic features. However, our review suggests that, on the contrary, most studies to date actually find that among people with ASD cognitive task performance is either a) mediated verbally in a typical fashion, or b) not mediated verbally, but at no obvious cost to overall task performance. Overall though, these studies have methodological limitations and thus clear-cut conclusions are not possible at this stage. The aim of the review is to take stock of existing empirical findings, as well as to help develop the directions for future research that will resolve the many outstanding issues in this field.

**Database:** PsycINFO

**Self-compassion: A potential buffer against affiliate stigma experienced by parents of children with autism spectrum disorders**

**Author(s):** Wong, Celia C. Y.; Mak, Winnie W. S.; Liao, Kelly Yu-Hsin

**Source:** Mindfulness; Dec 2016; vol. 7 (no. 6); p. 1385-1395

**Abstract:** Affiliate stigma was found to be associated with negative outcomes among parents of children with autism spectrum disorders, but only limited research has explored a potential buffer in this association. The present study examined self-compassion as a potential protective factor. One hundred eighty Chinese parents of children with autism spectrum disorders in Hong Kong participated in the study. After controlling for various types of social support (i.e., family support, friends support, and professional support) and positive parental perception, results of a hierarchical linear regression showed that affiliate stigma was significantly associated with psychological distress. In addition, the results identified self-compassion as a moderator in the association between affiliate stigma and psychological distress. Specifically, affiliate stigma was found to be significantly associated with psychological distress among parents with low levels of self-compassion but not among parents with high levels of self-compassion. These results pointed to the importance of cultivating self-compassion among parents of children with autism spectrum disorders. Future research may further explore the protective role of self-compassion in other stigmatized populations.

**Database:** PsycINFO

**Persistence of self-injurious behaviour in autism spectrum disorder over 3 years: A prospective cohort study of risk markers**

**Author(s):** Richards, Caroline; Moss, Jo; Nelson, Lisa; Oliver, Chris

**Source:** Journal of Neurodevelopmental Disorders; Dec 2016; vol. 8

Available in full text at Journal of Neurodevelopmental Disorders - from National Library of Medicine

**Abstract:** Background: There are few studies documenting the persistence of self-injury in individuals with autism spectrum disorder (ASD) and consequently limited data on behavioural and demographic characteristics associated with persistence. In this longitudinal study, we investigated self-injury in a cohort of individuals with ASD over 3 years to identify behavioural and demographic characteristics associated with persistence. Methods: Carers of 67 individuals with ASD (Median age of individuals with ASD in years = 13.5, Interquartile Range = 10.00–17.00), completed questionnaires relating to the presence and topography of self-injury at T₁ and three years later at T₂. Analyses were conducted to evaluate the persistence of self-injury and to evaluate the behavioural and demographic characteristics associated with persistence of self-injury. Results: At T₂ self-injurious behaviour had persisted in 77.8 % of individuals. Behavioural correlates of being non-verbal, having lower ability and higher levels of overactivity, impulsivity and repetitive behaviour, were associated with self-injury at both time points. Risk markers of impulsivity (p = 0.021) and deficits in social interaction (p = 0.026) at T₁ were associated with the persistence of self-injury over 3 years. Conclusions: Impulsivity and deficits in social interaction are associated with persistent self-injury in ASD and thus may act as behavioural risk markers. The identification of these risk markers evidences a role for behaviour dysregulation in the development and maintenance of self-injury. The findings have clinical implications for proactive intervention; these behavioural characteristics may be utilised to identify ‘at risk’ individuals for whom self-injury is likely to be persistent and therefore those individuals for whom early intervention may be most warranted.

**Database:** PsycINFO

**Cumulative life events, traumatic experiences, and psychiatric symptomatology in transition-aged youth with autism spectrum disorder**

**Author(s):** Taylor, Julie Lounds; Gotham, Katherine O.
**Source:** *Journal of Neurodevelopmental Disorders; Dec 2016; vol. 8*

Available in full text at *Journal of Neurodevelopmental Disorders* - from National Library of Medicine

**Abstract:** Background: Co-occurring mood and anxiety symptomatology is commonly observed among youth with autism spectrum disorders (ASD) during adolescence and adulthood. Yet, little is known about the factors that might predispose youth with ASD to mood and anxiety problems. In this study, we focus on the role of cumulative stressful life events and trauma in co-occurring psychopathology among youth with ASD who are preparing to exit high school. Specifically, we examined the distribution of cumulative life events and traumatic experiences and their relations with mood and anxiety symptomatology. Methods: Participants included 36 youth with ASD, all of whom were in their last year of high school. Cumulative life events and trauma were assessed by parent report. Mood and anxiety symptomatology was determined using a variety of methods (structured interview, questionnaire, self- and informant report). Frequencies were used to examine the distributions of cumulative life events (count of total events) and trauma (coded into any trauma vs. no trauma), as well as mood and anxiety symptomatology (categorized into clinical-level, sub-threshold, or none for each). Bivariate relations between life events/trauama and mood/anxiety symptomatology were assessed using analysis of variance and chi-square. Ordinal logistic regression models were used to test whether significant bivariate relations remained after controlling for the sex of the youth with ASD and his/her IQ. Results: Over 50% of youth had experienced at least one trauma. Nearly one half had clinical-level mood or anxiety symptomatology. There was a statistically significant relation between absence/presence of trauma and mood symptomatology; nearly 90% of the youth with clinical-level mood symptoms had at least one trauma, compared to 40% of those with no mood symptomatology. Conclusions: Our findings suggest that contextual factors such as trauma might be important for the development of mood symptomatology in individuals with ASD. Although this idea is well-accepted in typically developing populations, contextual factors are rarely studied in investigations of psychopathology or transition outcomes in ASD. Given the high rates of psychiatric comorbidities in this population, future research should continue to identify the range of possible factors—both behavioral and contextual—that might influence the emergence of these disorders.

**Database:** PsycINFO

---

**Autism Spectrum Disorder prevalence rates in the United States: Methodologies, challenges, and implications for individual states**

**Author(s):** Ramsey, Emily; Kelly-Vance, Lisa; Allen, Joseph A.; Rosol, Olivia; Yoerger, Michael

**Source:** *Journal of Developmental and Physical Disabilities; Dec 2016; vol. 28 (no. 6); p. 803-820*

**Abstract:** Many different studies have been conducted to determine the prevalence rates of Autism Spectrum Disorder (ASD) in the United States. The methodologies of these studies have varied, resulting in a multitude of publications with differing prevalence rates. Because there is such a wide range in the results of prevalence studies, it may be difficult for individual states to determine their rates. Accurate prevalence rates are important to obtain for many different reasons including increasing advocacy and awareness, increasing funding, and proper allocation of services for individuals with ASD and their families. Additionally, prevalence studies can be used to assess which groups are more at risk for ASD based on location and environmental factors. This paper describes different methodologies that can be utilized to determine ASD prevalence rates, the strengths and weaknesses of each method, and the challenges to determining accurate rates. This paper also includes the results from a study conducted in Nebraska to determine prevalence rates of ASD in the state. Implications for future prevalence studies are addressed and recommendations are provided.

**Database:** PsycINFO

---

**Response time variability under slow and fast-incentive conditions in children with ASD, ADHD and ASD+ADHD**

**Author(s):** Tye, Charlotte; Johnson, Katherine A.; Kelly, Simon P.; Asherson, Philip; Kuntsi, Jonna; Ashwood, Karen L.; Azadi, Bahare; Bolton, Patrick; McLoughlin, Gráinne

**Source:** *Journal of Child Psychology and Psychiatry; Dec 2016; vol. 57 (no. 12); p. 1414-1423*

**Abstract:** Background: Attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) show significant behavioural and genetic overlap. Both ADHD and ASD are characterised by poor performance on a range of cognitive tasks. In particular, increased response time variability (RTV) is a promising indicator of risk for both ADHD and ASD. However, it is not clear whether different indices of RTV and changes to RTV according to task conditions are able to discriminate between the two disorders. Methods: Children with ASD (n = 19), ADHD (n = 18), ASD + ADHD (n = 29) and typically developing controls (TDC; n = 26) performed a four-choice RT task with slow-baseline and fast-incentive conditions. Performance was characterised by mean RT (MRT), standard deviation of RT...
How is the NHS supporting adults with learning disabilities?

Tuesday 31st January 2017, Manchester Conference Centre, Manchester
Dr Della Money, Consultant Speech and Language Therapist, Learning Disabilities Service, Nottinghamshire Healthcare NHS Trust. To speak about *Effective and Meaningful Communication.*

**Join us at** Improving Lives: Supporting Adults with Learning Disabilities conference will hear from a line-up of expert speakers who will discuss challenging topics, debate contentious issues and analyse the way forward. Delegates will gain a true understanding of the current thinking which can be applied and positively contribute to their own circumstances, organisations and working practices to improve the lives of all those touched by learning disability.

Browse the Library catalogue
http://cwpt.wordpress.ptfs-europe.co.uk

---

**Resources on the web**

**What is NHS Evidence?**
www.evidence.nhs.uk

NHS Evidence is a service that enables access to authoritative clinical and non-clinical evidence and best practice through a web-based portal. It helps people from across the NHS, public health and social care sectors to make better decisions as a result. NHS Evidence is managed by the National Institute for Health and Clinical Excellence (NICE).

**Autism West Midlands Events**
http://www.autismwestmidlands.org.uk/events?mc_cid=8591b5d725&mc_eid=%5bUNIQID

**November Newsletter**
http://us2.campaign-archive1.com/?u=7a6d85cd8a782422ab7a3c913&id=0a4800db55&e=0699e9a39b

---

**Help select library Stock**

As medical and health related textbooks become increasingly expensive, it is vital that the health library’s resources are targeted at the texts most useful to staff. The librarians are always eager to receive any suggestions for addition to library stock. Simply e-mail the details to the library at: wendy.townsend@covwarkpt.nhs.uk

---

**Journals**

<table>
<thead>
<tr>
<th>Journal</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advances in Autism</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Advances In Mental Health And Intellectual Disabilities</td>
<td>From the journal homepage, click 'Institutional Login', select “Coventry and Warwickshire Partnership” from the list of institutions, click “Login” then enter your Athens username and password</td>
</tr>
<tr>
<td>Autism</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Autism Research Review International</td>
<td>Please contact Library Staff</td>
</tr>
<tr>
<td>British Journal of Learning Disabilities</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Journal Name</td>
<td>Access Information</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Good Autism Practice</td>
<td>Athens password required</td>
</tr>
<tr>
<td>International Journal of Developmental Disabilities</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Journal of Adult Protection</td>
<td>From the journal homepage, click &quot;Institutional Login&quot;, select &quot;Coventry and Warwickshire Partnership&quot; from the list of institutions, click &quot;Login&quot; then enter your Athens username and password</td>
</tr>
<tr>
<td>Journal of Applied Research in Intellectual Disabilities</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Journal of Intellectual Disabilities</td>
<td>Username: ptlibrary</td>
</tr>
<tr>
<td></td>
<td>Password: library1</td>
</tr>
<tr>
<td>Journal of Intellectual Disability Research</td>
<td>Please contact Library Staff</td>
</tr>
<tr>
<td>Journal of Intellectual Disabilities and Offending Behaviour</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Journal of Mental Health Research in Intellectual Disabilities</td>
<td>Athens password required</td>
</tr>
<tr>
<td>Research in Autism Spectrum Disorders</td>
<td>Please contact Library Staff</td>
</tr>
<tr>
<td>Tizard Learning Disability Review</td>
<td>From the journal homepage, click &quot;Institutional Login&quot;, select &quot;Coventry and Warwickshire Partnership&quot; from the list of institutions, click &quot;Login&quot; then enter your Athens username and password</td>
</tr>
</tbody>
</table>

**CWPT Library Contact Details**

**Library Service Manager**
Wendy Townsend
wendy.townsend@covwarkpt.nhs.uk
Tel. 01926 406749

**Outreach/Training Librarian**
Andrew Hough
Andrew.hough@covwarkpt.nhs.uk

**Health Sciences Library**
Caludon Centre, Clifford Bridge Road, Coventry
Tel. 02476 967928
caludon.library@covwarkpt.nhs.uk
Library Assistant: Lynne Kimberley

**Manor Court Library**
Jepson House, Nuneaton
Tel:02476 321 561
manorcourt.library@covwarkpt.nhs.uk
Library Assistant: Janine Patrick

**Brian Oliver Centre Library**
Brooklands, Marston Green, Solihull
Tel. 0121 329 4923
brooklands.library@covwarkpt.nhs.uk
Library Assistant: Denise Howell

**Education Centre Library**
St Michael’s Hospital, Warwick
Tel. 01926 406749
stmichaels.library@covwarkpt.nhs.uk
Library Assistant: Claire Bradley