Title: Remembering parents in parent-mediated early intervention: An approach to examining impact on parents and families
Authors: Wainer, Hepburn and McMahon Griffith
DOI: 10.1177/1362361315622411

Lay abstract: The past decade has seen immense growth in the development and evaluation of early intervention approaches aimed at ameliorating the core deficits of autism spectrum disorder (ASD). The majority of existing research on early intervention focuses on examining child outcomes (e.g. growth in language skills) with less emphasis on family and parent outcomes (e.g. family quality of life, belief in parenting ability). The goal of this review was to highlight the importance of also studying meaningful parent and family outcomes of early intervention for children with ASD. Because parent buy-in is essential for early intervention to be effective over time, more attention to family outcomes that are of value to families and have the potential to be impacted positively by these interventions is needed. In this review, we draw from work on parent and family outcomes studied in related fields (e.g. pediatric chronic illness, behavior management parent training) that we propose are particularly relevant when evaluating the impact of early intervention for ASD.

Title: The neuroanatomy of autism spectrum disorder: An overview of structural neuroimaging findings and their translatability to the clinical setting
Authors: Ecker
DOI: 10.1177/1362361315627136

Lay abstract: While individuals with autism spectrum disorders (ASD) show similar ‘behavioural deficits’ (e.g. problems with social communication and interaction, repetitive and stereotyped behaviours and interests), the genetics and neurobiology underlying autistic symptoms and traits are highly variable across individuals. This has, so far, hampered the development of ASD ‘biomarkers’ – a physical characteristic that can be detected and measured, and that could aid in the diagnosis of ASD or in predicting clinical outcomes (i.e. whether an individual will respond to treatment). As a result, ASD continues to be assessed based on observations of an individual’s behaviour and/or clinical interviews. Despite large variability between individuals, studies suggest that ASD is associated with early differences in the development of the brain, which result in abnormalities of the brain throughout the human life-span. In this study, we review the findings of recent neuroimaging studies (i.e. those examining the structure or the function of the brain) at various stages of development. Initially, the review focuses on the hypothesis of ‘early brain over-growth’, which suggests that areas of the brain develop abnormally in the first year of life in individuals with ASD. Moreover, the review provides a summary of neuroimaging studies examining the brain regions that are linked to autistic symptoms and traits. Last, this review focuses on several ‘translational’ research questions (e.g. identifying how this research on the brain can have a direct impact on the lives of those affected by ASD). We discuss how neuroimaging may play an important future role in addressing various clinical needs in ASD, such as identifying subgroups of individuals with biological characteristics.

Title: Screening accuracy of the parent-completed Ages and Stages Questionnaires – second edition as a broadband screener for motor problems in preschoolers with autism spectrum disorders
Authors: Vanvuchelen, Van Schuerbeeck and Braeken
DOI: 10.1177/1362361315621703

Lay abstract: Children with autism spectrum disorders (ASD) are at risk for motor problems. However, this area is often overlooked in developmental evaluations conducted in autism diagnostic clinics. Instead of conducting a detailed test of motor skills with children as part of their...
diagnostic assessment, an alternative may be to identify children who should receive a detailed assessment of motor skills by asking parents to complete a questionnaire. The aim of the present study was to examine whether the Ages and Stages Questionnaires (ASQ-2) may be used to identify motor problems in children with ASD. A total of 43 children with ASD (between 22 and 54 months of age) participated in this study. All of the children in the study had an IQ in the typical range (i.e. they did not have intellectual disabilities). The ASQ-2 scores of the children were compared to their scores on a formal evaluation of motor skill, using a test called the Peabody Developmental Motor Scale (PDMS-2). Results revealed that the capacity of the ASQ-2 to identify motor problems in preschoolers with ASD is limited. It is recommended to include a formal standardized motor test (such as the PDMS-2) in the diagnostic assessment for all children with ASD.

Title: Play complexity and toy engagement in preschoolers with autism spectrum disorder: Do girls and boys differ?
Authors: Harrop, Green and Hudry; the PACT Consortium
DOI: 10.1177/1362361315622410

Lay abstract: Approximately four boys to one girl receive a diagnosis of autism spectrum disorder (ASD). Due to this, girls with ASD remain relatively understudied compared to boys with ASD and we have a limited understanding of the extent to which symptoms and skills of girls and boys with ASD may be similar or different. Differences in how girls and boys play, and the toys that they play with, have been studied in great detail in typically developing children. However, only a handful of studies have explored this phenomenon in-depth in girls and boys with ASD. In this study, we explored how girls and boys with and without ASD (aged 2–5 years) played and we assessed what they played with. We achieved this by filming children playing with their caregiver for 10 minutes. Overall we found that girls and boys with ASD were very similar in the complexity of their play. However, girls and boys with ASD played with different toys, replicating traditional sex differences. Boys with ASD played more with the garage and cars (considered highly gendered items) and girls with ASD played more with dolls and domestic items (also highly gendered). While children with ASD did engage with highly gendered toy sets, they engaged with these at lower rates than both typically developing boys and girls. Our findings have implications for play-based intervention approaches as girls and boys with ASD may be motivated by different toy options despite playing at similar levels of complexity.

Title: To include or not to include: Evaluations and reasoning about the failure to include peers with autism spectrum disorder in elementary students
Authors: Bottema-Beutel, Turiel, DeWitt and Wolfberg
DOI: 10.1177/1362361315622412

Lay abstract: Children without disabilities play an important role in the lives of children with autism spectrum disorder (ASD), given that they make up the majority of the peer group. This means that it is important to understand how children without disabilities think about the inclusion/exclusion of children with ASD in social situations. The purpose of this study is to determine how elementary students evaluate and think about scenarios where a child with ASD is not included in a social activity. Forty-four elementary-aged students participated in interviews with a researcher, which involved short stories describing different situations where a child with ASD is not invited to a social event. Children’s responses when a researcher asked “is it okay that he/she was not included?” were analyzed to better understand whether children thought it was right or wrong, and the reasons they gave to explain their evaluation. Results showed that most children think that it is wrong not to invite a child to a social activity because they have autism. However, older children appeared to provide more sophisticated reasoning to support their evaluation, and more children reasoned at a higher level when the social activity was a birthday party as compared to a playdate. In this paper, we offer implications for future research and practice regarding the social inclusion of children with ASD.

Title: Attitudes of the autism community to early autism research
Authors: Fletcher-Watson, Apicella, Auyeung, Beranova, Bonnet-Brilhaut, Canal-Bedia, Charman, Chericoni, Conceição, Davies, Farroni, Gomot, Jones, Kaale, Kapica, Kawa, Kylläinen, Larsen, Lefort-Besnard, Malvy, Manso de Dios, Markovska-Simoska, Milla, Miranda, Pasco, Pisula, Rapeva, Roge, Salomone, Schjolberg, Tomalski, Vicente and Yirmiya
DOI: 10.1177/1362361315626577

Lay abstract: Research trying to find out what are the earliest signs of autism in babies has become a significant subfield of autism research. This work gives rise to complex
questions such as: How should we accurately describe babies who don’t yet have an autism diagnosis, but we think are likely to receive one when they are older? How should we share information about babies with their parents if we’re not yet sure what it means clinically? How will babies taking part in research projects now feel about this when they reach adulthood? In this study, we asked members of the autism community about these issues. We used focus groups to identify important topics, and then an online survey was shared with autistic adults, parents of children with autism, and practitioners in health and education settings across eleven European countries. Those who replied to the survey (more than 2300 people) felt positive about early autism research. The separate groups from the community shared a lot of the same opinions. However there were also differences including: overall less favourable endorsement of early autism research by autistic adults relative to other groups; and a dislike of the phrase ‘at-risk’ to describe infant research participants, in all groups except healthcare practitioners. The findings overall indicate that the autism community in Europe is supportive of early autism research. Researchers should endeavour to maintain this by continuing to take community perspectives into account.

Title: Adolescent boys with an autism spectrum disorder and their experience of sexuality: An interpretative phenomenological analysis

Authors: Dewinter, Van Parys, Vermeiren and van Nieuwenhuizen

DOI: 10.1177/1362361315627134

Lay abstract: This study explored how adolescent boys with autism spectrum disorder (ASD) experience their sexuality. This was achieved by conducting in-depth interviews with eight boys, aged 16 to 20, with Asperger’s disorder or autistic disorder. The interviews were analysed in detail using a technique called ‘Interpretative phenomenological analysis’ (IPA), which aims to offer insights into how interviewees (participants) themselves make sense of their experiences. Three major themes emerged from the interviews, relating to: (a) how the participants experience sexual feelings, think about sexuality and think about themselves as sexual beings; (b) how they perceive messages relating to sexuality in their surroundings; and (c) how they experience finding and having a partner and partnered sex. The participants’ sexual experience ranged from limited recognition of sexual arousal to partnered experience with several partners. Some boys felt confident as (sex-) partners, while others felt less capable to develop relationships. Discussing their sexual experience was new to most boys, and several experienced only limited guidance and support relating to sexuality by caregivers and other adults. Peers and the internet were important sources for information, although they could be interpreted in different ways. We believe that attention to these themes is needed in assessment, education and further research.

Title: Young children with autism spectrum disorders imitate in the context of others’ prior intention

Authors: Huang, Chiang and Hung

DOI: 10.1177/1362361315627135

Lay abstract: Research on imitation (copying another’s behavior) has shown that children with autism spectrum disorders (ASD) have some understanding of other people’s intentions when performing an action to achieve a goal (known as ‘goal-directed intentions’). The current study tested their understanding of others’ intentions in a task in which they were shown a pre-demonstration before seeing an adult demonstrate a two-step action to open a box. The pre-demonstration involved the children seeing the adult either try to find out something in the context of the situation (by opening several different containers) or the adult manipulated other toys with unintentional, irrelevant acts. We tested three groups of children: (1) young children with ASD, (2) developmentally delayed children, and (3) typically developing children. Results showed that when the adult’s intention was made known before the demonstration, non-ASD children opened the box more successfully than ASD children. Non-ASD children also performed better when they were told information about the person’s prior intentions (relative to when they were not). Children with ASD opened the box at similar rates regardless of context (i.e. whether or not they were told about the adult’s prior intentions), suggesting that they did not benefit from the information about prior intentions. Thus, even if children with ASD do not exhibit deficits in understanding goal-directed intentions, they may have difficulties considering intentions that are present before the actions take place.

Title: Race, disability, and grade: Social relationships in children with autism spectrum disorders

Authors: Azad, Locke, Kasari and Mandell

DOI: 10.1177/1362361315627792

Lay abstract: Race is associated with social relationships among typically developing children. More specifically, children of the same race tend to be friends more often. However, studies rarely examine the impact of race on social outcomes for children with autism spectrum disorder (ASD). The present study examined how race (African
American, Latino, Asian, or White) in conjunction with disability status (ASD or typically developing) and grade (K–2nd (aged 5–8 years) or 3rd–5th grades (aged 8–11 years)) affects friendships and who children associate with. A total of 85 children with ASD and 85 typically developing children took part in this study, in which they were asked to nominate classmates as their friends. Findings suggest that children with ASD who were African-American or Latino in the upper elementary grades (i.e. 8–11 year olds) received fewer friendship nominations than typically developing White children in the lower elementary grades (i.e. 5–8 year olds). Children with ASD were also less likely to have a network of peers that they associate with. Our results also suggested that Latino children with ASD in the upper elementary grades were at the highest risk for social isolation.

**Title:** Gaze direction detection in autism spectrum disorder  
**Authors:** d'Arc, Delorme, Zalla, Lefebvre, Amsellem, Moukawane, Letellier, Leboyer, Mouren and Ramus  
**DOI:** 10.1177/1362361316630880  

**Lay abstract:** Individuals with autism spectrum disorder (ASD) often show unusual eye contact and tend to follow gaze less. In this study, we investigated whether the direction of gaze towards an object was perceived less accurately in people diagnosed with ASD. A total of 33 children and adults with ASD, as well as 38 non-autistic children and adults (of a similar age and level of ability) took part in this study. They were asked to watch a series of faces looking at objects, and decide which object (out of two) was being looked at. Crucially, the distance between the two target objects decreased from trial to trial until it was not possible for the person to distinguish which object was being looked at. We found that the ASD group was less accurate in detecting the direction of gaze, compared to the non-autistic group. Our results suggest that gaze following may be part of social interaction difficulties in children and adults with ASD.

**Title:** Open-trial pilot study of a comprehensive outpatient psychosocial treatment for children with high-functioning autism spectrum disorder  
**Authors:** Lopata, Lipinski, Thomeer, Rodgers, Donnelly, McDonald and Volker  
**DOI:** 10.1177/1362361316630201  

**Lay abstract:** High-functioning children with autism spectrum disorder (HFASD) show the core symptoms of autism (impairments in communicating socially, as well as repetitive interests and behaviors). However, they are relatively able verbally and intellectually. For these children, social impairments can involve problems with basic social skills and behaviors (e.g. holding a two-way conversation), as well as more complex social understanding (e.g. difficulties interpreting emotions in facial expressions, or understanding non-literal language). Developing effective treatments for individuals with HFASD is challenging given the complex nature of the disorder (involving a range of different symptoms). So-called ‘comprehensive treatment models’ have been recommended as they are designed to address specific skills, ASD symptoms, broader functioning (i.e. outside the core symptoms of ASD), and the needs of individual children. In this study, we conducted an initial evaluation of a comprehensive outpatient treatment model (MAXout) for 7–12 year olds with HFASD. This was an 18-week treatment, involving two 90-minute sessions per week. It included instruction and activities targeting social/social-communication skills, facial-emotion recognition, non-literal language skills, and interest expansion (i.e. encouraging individuals to broaden their interests). A behavioral system was implemented to reduce symptoms of ASD and problem behaviors, as well as to increase the acquisition and maintenance of new skills. The results suggest that the treatment was implemented accurately (so-called ‘treatment fidelity’) and that parents, children, and staff were satisfied with the treatment. The treatment resulted in significant improvements for the children’s non-literal language skills and facial emotion-recognition skills, as well as social/social-communication skills, broader social skills, ASD symptoms, and problem behaviors. Overall, the results were encouraging and suggest that MAXout may yield positive outcomes for children with HFASD.

**Title:** The influence of media suggestions about links between criminality and autism spectrum disorder  
**Authors:** Brewer, Zoanetti and Young  
**DOI:** 10.1177/1362361316632097  

**Lay abstract:** This study examined whether media reports linking criminal behaviour and autism spectrum disorder (ASD) foster negative attitudes towards individuals with ASD. Participants were exposed to a media story in which a murderer was either labelled with ASD or not labelled with any disorder. Further, some of the participants were also exposed to an educational message attacking the myth that people diagnosed with ASD are likely to be violent
criminals. Following this, we probed participants’ attitudes towards three different crime perpetrators (one with ASD), who were described in three separate vignettes. The media exposure linking crime and ASD promoted more negative attitudes towards individuals with ASD, whereas the positive ASD-related educational message had the opposite effect. The study provides the first empirical evidence that media-fuelled links between crime and ASD could have widespread unintended negative consequences. The study is a preliminary one and doesn’t address the likely influence of negative media exposure and educational messages when they are located within a more naturalistic context, the likely durability of any effects, or how attitudes might translate into behaviour. Nevertheless, the findings provide a starting point for systematic research in this area and a basis for reflection about media behaviour.