Lay Abstracts

Title: Exposure to bullying among students with autism spectrum conditions: A multi-informant analysis of risk and protective factors

Authors: Hebron and Humphrey

DOI: 10.1177/1362361313495965

Lay abstract: In recent years, research has consistently shown that children and young people with autism spectrum conditions (ASC) are more likely to be bullied than those with other or no special educational needs. The aim of the current study was to explore characteristics associated with increases (risk factors) and decreases (protective factors) in bullying. A total of 722 teachers and 119 parents completed questionnaires on their child’s experience of being bullied, with consideration given to both individual and contextual factors. Both teachers and parents reported that behaviour difficulties and increased age were related to being bullied. Teachers also reported that having positive relationships with others and attending a special school were associated with lower levels of bullying, while the use of public/school transport to travel to and from school was accompanied by an increase in bullying. Parents reported that pupils with identified needs but without statutory educational support were at greater risk of being bullied, although higher levels of parental engagement and confidence were associated with reductions in bullying. These findings are discussed in relation to the ASC literature, along with a reflection on the relevance of general bullying research to those with ASC, and the social inclusion of this group of young people. Opportunities for intervention are considered in the light of emerging common themes, including different types of approach and the importance of the school environment.

Title: Psychotropic medication trends among children and adolescents with autism spectrum disorder in the Medicaid program

Authors: Schubart, Camacho and Leslie

DOI: 10.1177/1362361313495717

Lay abstract: Children with autism spectrum disorders (ASD) are often prescribed psychotropic medications to manage symptoms that affect the child’s daily life, such as aggression, hyperactivity and self-injurious behavior. Psychotropic medications are drugs that affect mental activity, perception, or behavior, such as sedatives and antidepressants. Because there is limited research about the use of these medications to control the symptoms of ASD in children, we conducted the current study. Our study sample included children and adolescents with ASD enrolled in Medicaid programs in 41 US states. We used a data set that comprised 4 years of administrative claims data (2000–2003) and included nearly 3 million children and adolescents who were 17 years or younger. The sample of ASD children included patients who had either two outpatient visits or one inpatient visit with a diagnosis of ASD. We examined the trends in use of the psychotropic medications over time, including the length of treatment and use of multiple psychotropic medications. We found that approximately 65% of children with ASD received a psychotropic medication. Also, we observed an increasing overall trend in the use of psychotropic drugs among children with ASD. Among the different classes of psychotropic drugs, antipsychotics were the most common class. Our results are consistent with previous reports that psychotropic drugs are highly prevalent in this population and also show that their use is increasing over time. These results suggest the need to study the risks and benefits of using these drugs in this growing, often vulnerable, population.

Title: Effects of repetitive transcranial magnetic stimulation in performing eye–hand integration tasks: Four preliminary studies with children showing low-functioning autism

Authors: Panerai, Tasca, Lanuzza, Trubia, Ferri, Musso, Alagona, Di Guardo, Barone, Gaglione and Elia

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Lay abstract: Individuals with autistic disorder display deficits in social interaction, language and communication,
as well as restricted and repetitive interests and behaviours; this disorder may also be associated with intellectual disability. Motor impairments have also been seen as associated symptoms of autistic disorder and these include deficits in gross and fine motor skills. Most previous studies conducted on motor behaviour in this group were carried out with children with high-functioning autism. Only a few studies have investigated motor functions in children with low-functioning autism and the results are controversial. With regard to the involvement of the brain in motor performance, a region of the brain called the premotor cortex – especially the left premotor cortex – plays an important role in selecting actions required for using objects. Given the important role of eye–hand integration skills in children with severe intellectual disabilities, this report, based on four studies on children with low-functioning autism, aimed to evaluate the effects of a technique called repetitive transcranial magnetic stimulation (rTMS) on eye–hand integration tasks. Transcranial magnetic stimulation (TMS) is a noninvasive method in which an electromagnetic coil is held against the head and magnetic pulses are passed through the skull to nerves in specific circuits of the brain. rTMS is a variant of TMS, which can produce changes lasting longer than the period of stimulation. Results showed a significant increase in eye–hand coordination performance only when the rTMS was delivered on the left premotor cortex. This was a persistent improvement of up to one hour after the end of the stimulation and better outcomes were observed when combining rTMS and a traditional eye–hand integration treatment. Based on these preliminary findings, further evaluations on the usefulness of rTMS in the rehabilitation of children with low-functioning autism are strongly recommended.

**Title: Parents’ views of the National Autistic Society’s EarlyBird Plus Programme**

**Authors:** Cutress and Muncer

**DOI:** 10.1177/1362361313495718

**Lay abstract:** It is recommended that parent training interventions should be offered to parents soon after their child’s diagnosis of an autism spectrum condition. These interventions should help parents learn how to best manage their child’s behaviour and should also aim to help parents cope with the difficulties of raising a child who is on the autism spectrum. The current study sought to explore parents’ views of the EarlyBird Plus Programme, which is a group-based parent training intervention developed by the National Autistic Society (UK) for parents of children aged between 4 and 8 years old. Parents complete an evaluative questionnaire at the end of the programme and responses to this questionnaire were analysed in the current study. Parents were very positive about the EarlyBird Plus Programme and they reported improvements in their knowledge about autism, their communication with their child, and their understanding about ways of managing their child’s behaviour. In addition, parents found it helpful to meet others in the same situation and share experiences with other parents.

**Title: See what I see, do as I do: Promoting joint attention and imitation in preschoolers with autism spectrum disorder**

**Authors:** Warreyn and Roeyers

**DOI:** 10.1177/1362361313493834

**Lay abstract:** Young children, especially before they can talk, learn a lot by doing what someone else is doing. These imitation skills are associated with later language and social abilities. The same is true for joint attention, the capacity to share the attention for something with someone else. Since imitation and joint attention are usually limited in children with autism spectrum disorder (ASD), it is important to stimulate the development of these abilities in this group. The current study reports a small scale study of an intervention programme focusing on imitation and joint attention in a group of preschoolers with ASD. The preschoolers who received the training programme improved significantly more on joint attention than the preschoolers who did not (these children only received their usual treatment). Further, only the preschoolers that received the training programme obtained a significantly higher imitation score after the intervention compared with before the intervention. This study shows that it is possible to promote imitation and joint attention with a low-intensity treatment programme. Implications for practice and for future research are discussed.

**Title: Group cognitive behavioural therapy and group recreational activity for adults with autism spectrum disorders: A preliminary randomized controlled trial**

**Authors:** Hesselmark, Plenty and Bejerot

**DOI:** 10.1177/1362361313493681

**Lay abstract:** Few treatment options are available for adults with autism spectrum disorder (ASD). The aim of this research was to assess two group interventions for adults with ASD (who have intelligence levels within the normal range): cognitive behavioural therapy (CBT) and recreational activity. Both interventions comprised 36
social cognition difficulties in ASD are primarily intelligence, verbal skills, and age. Findings suggest that taking and social awareness, despite comparable intelligence, minimising dropout. The results also indicate that individuals with ASD may succeed on some social cognition tests with multiple-choice questions, even if they have considerable difficulties with social thinking and reciprocal social-communication in everyday life.

**Title: Explicit versus implicit social cognition testing in autism spectrum disorder**  
*Authors: Callenmark, Kjellin, Rönnqvist and Bölte*  
*DOI: 10.1177/1362361313492393*

**Lay abstract:** Impairments in reciprocal social communication and social thinking are core features of autism spectrum disorder (ASD). Nevertheless, several studies failed to validate ‘social cognition’ problems in ASD. This study examined two variants of testing social cognition in ASD: conscious and prompted (‘explicit’) versus unconscious and spontaneous (‘implicit’) assessments. A group of adolescents with ASD and a typically developed control group judged the acceptability of behaviours in social scenarios. To investigate ‘explicit’ social cognition, participants answered multiple-choice questions. To investigate ‘implicit’ social cognition, participants were interviewed with an open-ended question. The group of adolescents with ASD had the same ability to pass the explicit variant of social cognition testing, but performed poorer on the implicit variant. Here, the ASD group showed less perspective taking and social awareness, despite comparable intelligence, verbal skills, and age. Findings suggest that social cognition difficulties in ASD are primarily implicit in nature.

**Title: Does facial expressivity count? How typically developing children respond initially to children with autism**  
*Authors: Stagg, Slavny, Hand, Cardoso and Smith*  
*DOI: 10.1177/1362361313491327*

**Lay abstract:** Children with autism have a difficult time at school, and 40% of children with autism report being bullied. The research investigated the initial impressions typically developing children form when watching videos of children with autism. We mixed silent videos of typically developing children and a comparison group of 14 later-born infants who did not have a family history of autism were videotaped at home while interacting with a primary caregiver (mother) at 13 and 18 months of age. The results revealed that both groups of mothers were highly and similarly responsive to their infants’ communicative behaviors. However, the delayed communication development among the infant siblings had a negative impact on the mothers’ opportunities to respond with rich verbal input that was specifically tailored to their infants’ focus of attention; this in turn may have far reaching negative consequences for the future development of language and communication in infant siblings with delays.
had a diagnosis of autism. It came as a surprise to us that these children were rated lower on nearly all of our measures. The school children rated the children with autism as less trustworthy than the typically developing children. They were also less likely to want to play with them and less likely to want to be friends with them. This is even more surprising considering that the raters were unaware of the autism diagnosis. With 71% of children with an autism diagnosis educated in mainstream schools, we suggest that schools need to work with typically developing children to educate them about autism, in order to break through the negative impressions that can be formed in a moments contact.

**Title: The Autism MEAL Plan: A parent-training curriculum to manage eating aversions and low intake among children with autism**

**Authors: Sharp, Burrell and Jaquess**

**DOI:** 10.1177/1362361313489190

**Lay abstract:** Feeding problems are common among children with autism spectrum disorders (ASD), with estimates reaching as high as 90%. Emerging evidence also suggests that atypical food intake in ASD is associated with increased risk for poor medical outcomes, including nutritional deficits, poor bone growth, and obesity. These increased risks combined with such high rates of ASD intensify the importance of identifying effective treatments to address feeding problems associated with the disorder. Behavioral intervention has been shown to improve feeding concerns in ASD, but these treatments primarily involve therapists working in highly structured (i.e. clinic) settings. The current study describes a treatment program called the Autism MEAL Plan, which was specifically designed to serve as a brief (8-week), parent-directed intervention administered in a small group format. The study evaluated the program’s feasibility in terms of the content and implementation of the program, recruitment and retention of participants, and assessment procedures. We also obtained preliminary outcome data evaluating the social acceptability of the treatment and its effectiveness in expanding dietary variety. Ten families participated in the treatment and the program was evaluated by comparing the feeding problems of the children receiving the treatment against those of nine families who have a child with ASD on the waiting list for the Autism MEAL Plan intervention. The results suggest this type of program holds promise as an intervention for feeding problems in ASD, with parents reporting they liked the format of the intervention, believed it was an effective means to address their child’s feeding concern, and experienced less stress following participation. The importance of research in this area, shortcomings of the current study, and ideas for future research are discussed.

**Title: Group therapy for anxiety in children with autism spectrum disorder**

**Authors:** McConachie, McLaughlin, Grahame, Taylor, Honey, Tavernor, Rodgers, Freeston, Hemm, Steen and Le Couteur

**DOI:** 10.1177/1362361313488839

**Lay abstract:** Many children with autism spectrum disorder (ASD) experience high levels of anxiety. Cognitive behaviour therapy is the treatment of choice, but needs adaptation for children with ASD as they often have difficulty with understanding emotions. We evaluated a programme called ‘Exploring Feelings’, developed by Tony Atwood in Australia for children with ASD, to assess its usefulness in the UK. In this randomised controlled trial, half the children were invited to attend seven weekly group therapy sessions, and half waited till the end of the study. Thirty two children were recruited, aged 9–13 years; child and parent groups ran at the same time, so that parents could learn techniques to support their child.

The children had anxiety at levels for a diagnosis of between 1 and 6 anxiety disorders. Families attended 91% of group sessions. After 3–4 months, both parents and children who attended immediate therapy were more likely to report a reduction in anxiety symptoms than those who were waiting. Ratings by the researcher (who did not know whether the family had attended or not) showed a similar pattern of improvement. Thus, the pilot trial established that families were willing to be recruited and randomised in a research evaluation study, very few dropped out, the outcome measures used were acceptable, it was feasible to run the therapy group format within UK child and adolescent mental health services, and the intervention was appreciated by children and parents. A full-scale evaluation could now be mounted.

**Title: Three-item Direct Observation Screen (TIDOS) for autism spectrum disorder**

**Authors:** Oner, Oner and Munir

**DOI:** 10.1177/1362361313487028

**Lay abstract:** There has been an increased awareness of autism spectrum disorders (ASD) all over the world in recent years. Since early interventions are more effective for improving the symptoms, it has been argued that ASDs must be screened among young children. However, for several reasons, this is not an easy task. One of these reasons is that the screening tools used to detect autism are not always very
accurate at doing so. In the present study, our aim was to develop a short observation that can be used as an adjunct to parent questionnaires when screening for ASD. We compared ratings on a tool called the Three-Item Direct Observation Screen test for ASD (which is completed by medical professionals) with a tool called the Social Communication Questionnaire (which is completed by parents). We examined three groups of children (aged 18–60 months) who were of similar ages and gender distributions: (1) ASD; (2) developmental delay without ASD; and (3) typically developing. The Three-Item Direct Observation Screen test included the following (a) Joint Attention, (b) Eye Contact, and (c) Responsiveness to Name. All three observational items were significantly more impaired in children with ASDs, when compared with children with developmental delay or typical development. The results indicated that ASD screening can be improved by using observational items completed by trained pediatric-oriented professionals. If supported by future studies of larger groups of children, the results suggest that primary care practitioners will be able to be trained to use this direct procedure to augment screening for ASD in the community.

**Title:** The presence of migraines and its association with sensory hyperreactivity and anxiety symptomatology in children with autism spectrum disorder

**Authors:** Sullivan, Miller, Nielsen and Schoen

**DOI:** 10.1177/1362361313489377

**Lay abstract:** People with autism spectrum disorders (ASD) often show unusual reactions to their physical environment, some being unable to cope with harmless sensations, while others do not seem to notice even strong stimuli like fire alarms. The new diagnostic criteria for ASD (DSM-5) includes these features as “hyper- or hypo-reactivity to sensory input” (www.dsm5.org). Interestingly, there is evidence that people in the general population who experience migraine headaches also show unusual sensory reactivity. Specifically, people who experience migraines may be hyperreactive (more reactive), rather than hyporeactive (less reactive), to physical sensations. Furthermore, both people with ASD and those in the general population with migraines have been reported to show greater levels of anxiety symptoms. We wondered if the presence of migraine headaches in children with ASD might also be associated with (a) sensory hyperreactivity, and/or (b) anxiety traits. Indeed, in our study of children 7–17 years old with ASD, we found that children who experienced migraine headaches were also likely to be sensory hyperreactive as well as showing more symptoms of anxiety. Children with ASD who were more sensory hyperreactive were also more anxious. Together, we suggest that migraine headaches, sensory hyperreactivity, and anxiety may reflect a greater general brain reactivity in ASD. The association between migraine headaches, and at least a subset of cases with ASD, may additionally point towards a biological mechanism and research strategy for understanding the cause of the disorder.