Title: Emotional recognition in Autism Spectrum Conditions from voices and faces

Authors: Stewart, McAdam, Ota, Peppe and Cleland

DOI: 10.1177/1362361312473382

Lay abstract: Identifying emotion from speech can be an area of difficulty for individuals on the autism spectrum. We assessed whether people with Autism Spectrum Conditions (ASC) perform differently from typically developed individuals in identifying emotion in speech. Participants heard sentences in which the literal meanings of sentences were either congruent or incongruent with the tone in which they were said, or neutral. For instance, “Stop that at once!” said with a tone implying anger would be congruent, but incongruent if it was said with a tone implying happiness. Neutral sentences which did not imply any emotional state included, for example: “He drank a cup of tea”. We also included a vocalization, ‘mmm’ devoid of meaning. All the sentences were said in one of five emotions: anger; fear; happiness; surprise; and disgust, and participants were asked to identify the emotion in the voice. We compared the performance of eleven adults with ASC and fourteen typically developed adults (the comparison group). Identification of emotion from sentences in which the vocal emotion and the literal meaning were congruent was similar in both groups. However, the comparison group was more accurate at identifying the emotion in the voice from incongruent and neutral trials, and also from trials with no semantic content. From this we concluded that individuals with ASC relied more than typically developed individuals on the literal meaning of the sentence to interpret the spoken emotion. Individuals with ASC may use this as a strategy for recognizing emotions to compensate for their difficulties in interpreting the tone in which a sentence is said.

Title: A nationwide survey on quality of life and associated factors of adults with high-functioning autism spectrum disorders

Authors: Kamio, Inada and Koyama

DOI: 10.1177/1362361312436848

Lay abstract: Children with high-functioning autism spectrum disorder (HFASD) develop into adulthood along diverse paths, and some often experience problems in school or occupational settings despite their high intellectual or language abilities. There were two aims of this study: first, to determine the quality of life of adults with HFASD living in the community in Japan; and second, to identify factors, both in the present and the past, that are associated with quality of life.
in adulthood (especially those factors that can potentially be improved by therapeutic intervention). We conducted a nationwide survey by mailing questionnaires to 192 specialized facilities such as support centers for persons with developmental disorders, and complete information was provided by 154 respondents with HFASD (123 males), their parents, and facility staff who knew the respondents well. All respondents diagnosed with ASD were over 18 years of age, lived in the community, and had utilized one or more support services during the survey period. The results showed that people with HFASD had lower quality of life than the general Japanese adult population. Better quality of life was associated with factors such as mother’s support and early diagnosis, while poorer quality of life was associated with the presence of aggressive behaviors. A measure of language abilities during preschool years was not found to predict quality of life. These results emphasize the importance of assessing quality of life when treating individuals with HFASD.

Title: Enhancing parental well-being and coping through a family-centred short course for Iranian parents of children with an autism spectrum disorder

Authors: Samadi, McConkey and Kelly

DOI: 10.1177/1362361311435156

Lay abstract: In less developed countries, parents whose children have autism spectrum disorder (ASD) can find it difficult to obtain information and advice as professional services are poorly developed. This may adversely affect their personal well-being which in turn makes it less likely that they can provide the appropriate supports for their child. A short introductory course on ASD was devised and evaluated with two groups of parents in Tehran – 37 in all. The seven sessions covered definitions and causes, the myths and reality of ASD, parental reactions, common interventions, accessing services and changing society’s attitudes through parental advocacy. Measures of parental stress, emotional well-being, family functioning and coping strategies were taken prior to the course and three months after it ended. In addition one group of parents acted as a ‘comparison’ prior to them also taking the course. Although there were individual differences among the mothers and fathers, after taking the course parents in both groups generally rated themselves as significantly less stressed, with improved emotional wellbeing, better family functioning and more use of problem-focussed coping strategies. The changes were attributed to the provision of information in ways that parents could understand allied with the informal supports engendered among parents. A resource pack of training materials has been developed so that this style of workshops can be easily repeated and facilitators trained in its use.

Title: Comparison of physical activity between children with autism spectrum disorders and typically developing children

Authors: Bandini, Gleason, Curtin, Lividini, Anderson, Cermak, Maslin and Must

DOI: 10.1177/1362361312437416

Lay abstract: Regular physical activity is important for promoting health and well-being; however, levels of participation in physical activity by children with autism spectrum disorders
(ASD) have received little attention. We compared physical activity levels among 53 children with ASD and 58 typically developing (TD) children ages 3-11 years who participated in the Children’s Activity and Meal Patterns Study (CHAMPS). Children were asked to wear an accelerometer, a device that measures physical activity, for 7 days to measure their time spent in moderate and vigorous activity. Parents were also asked to report the type and frequency of activities their child participated in over the past year. We found that the amount of time spent daily in moderate and vigorous activity was similar between the two groups of children; children with ASD spent 50.0 minutes/day, and TD children spent 57.1 minutes/day. However, parents reported that children with ASD participated in significantly fewer types of physical activities than did TD children (7.1 vs. 9.8), and spent less time annually participating in these activities compared to TD children (159 vs. 225 hrs/yr). Although both groups of children engaged in similar levels of moderate and vigorous activity as measured directly by accelerometers, children with ASD engaged in fewer physical activities and for less time according to parental report. This suggests that some activities engaged in by children with ASD are not captured by standard questionnaire-based measures. For example, some children with ASD engage in frequent roaming and pacing which would be picked up by accelerometers, but not captured on parent-reported physical activity checklists.

Title: Diseases of the gastrointestinal tract in individuals diagnosed as children with atypical autism: A Danish register study based on hospital discharge diagnoses

Authors: Mouridsen, Isager and Rich

DOI: 10.1177/1362361312455110

Lay abstract: Atypical autism (also known as ‘Pervasive Developmental Disorder – Not Otherwise Specified) is a term used to describe individuals who display behaviours that meet most, but not all, of the criteria for typical autism. It is a relatively poorly researched disorder compared to the other subgroups on the autistic spectrum. The purpose of our study was to investigate the frequency and types of diseases relating to the gastrointestinal tract (the stomach and intestines) in a group of people with atypical autism; an issue, which has been intensely debated over the past decade.

To achieve this, a group of 89 people diagnosed with atypical autism as children was compared with 258 people from the general population (of a similar and age and gender). We used the diagnoses reported at the time that they were discharged from hospital (as noted in the nationwide Danish National Hospital Register). The average time that the patients were observed was 32.9 years, and the average age of the patients at the end of the study period was 48.5 years.

Among the 89 people with atypical autism, a total of 22 (24.7%) were registered in the Danish National Hospital Register with at least one diagnosis of any disease of the gastrointestinal tract. In the comparison group, the corresponding figure was 47/258 (18.2%). The difference is not statistically significant. Overall, our results suggest that people with atypical autism had about the same frequency of gastric, intestinal and hepatic diseases as had the comparison group from the general population. In the future, people with atypical autism deserve the same thoroughness and standard of care in diagnostic workup and treatment of symptoms and diseases relating to the gastrointestinal tract as should occur for other people.
**Title: Early markers of autism spectrum disorders in infants and toddlers prospectively identified in the Social Attention and Communication Study**

**Authors:** Barbaro and Dissanayake

DOI: 10.1177/1362361312442597

**Lay abstract:** Barbaro and Dissanayake (2010) successfully implemented ‘developmental surveillance’ of the early markers of Autism Spectrum Disorders (ASDs) by training health-care nurses to detect the early signs of ASDs in infants and toddlers in the community. The objective in the current study was to follow-up this work by determining which of these early markers could be used to differentiate children with and without ASDs at 12-, 18-, and 24-months of age, so that they could be used to identify children with ASDs with greater accuracy. The percentage of ‘yes/no’ responses for each early marker was compared between children with Autistic Disorder (AD; n = 39), Autism Spectrum Disorder (n = 50), and developmental and/or language delay (n = 20) from 12- to 24-months of age. At each age, the consistent markers of both AD and ASD were deficits in Eye Contact and Pointing, and from 18-months, deficits in Showing became an important marker of AD and ASD. These behaviours, along with Pretend Play, were found to be the best group of markers that could differentiate children with AD/ASD and developmental and/or language delay at 24-months of age. It is argued that the identified markers should be monitored repeatedly during the second year of life by community-health professionals to identify children with ASDs at the earliest possible opportunity.

**Title: Evaluation of the Revised Algorithm of Autism Diagnostic Observation Schedule (ADOS) in the Diagnostic Investigation of High-Functioning Children and Adolescents with Autism Spectrum Disorders**

**Authors:** Kamp-Becker, Ghahreman, Heinzel-Gutenbrunner, Peters, Remschmidt and Becker

DOI: 10.1177/1362361311408932

**Lay abstract:** The Autism Diagnostic Observation Schedule (ADOS) is a tool used to evaluate whether an individual should receive a diagnosis of an autism spectrum disorder (ASD). The ADOS has been effective in categorizing children who definitely have ASD, but this is not always the case for children with milder ASD. A revised scoring system for the ADOS (known as an algorithm) has recently been developed. This study aimed to determine how valid these new algorithms are for people with high-functioning ASD. In this study, a group of 252 children and adolescents aged between 4 and 16 years were assessed (126 with a diagnosis of ASD, 126 with a non-ASD diagnosis). The new algorithm was found to be more sensitive, as it was better able to differentiate between an autism versus non-spectrum diagnosis, as well as the broader ASD versus non-spectrum diagnosis. The strength of the original algorithm lies in its positive predictive power (the high proportion of people that are correctly diagnosed), while the revised algorithm shows weaknesses in diagnosing non-autism ASD. As the ADOS is valid and reliable even for people with high-functioning ASD, the findings of the present study are used to make recommendations regarding the best use of ADOS algorithms in high-functioning samples.
Title: Outcomes in adults with autism spectrum disorders: a historical perspective

Authors: Henninger and Taylor

DOI: 10.1177/1362361312441266

Lay abstract: In this review, we examine the ways in which researchers have defined successful adult outcomes for individuals with autism spectrum disorders, as well as how those definitions have changed over time. The earliest outcome studies used vague and unreliable outcome criteria, and institutionalization was a common marker of poor outcomes. In the past decade, researchers have begun to standardize the measurement of adult outcomes by developing specific criteria based on friendships, employment, and living arrangements. There has also been an increased focus on using similar criteria to define outcomes across studies, which makes it easier to compare results from different samples. While nearly all of these studies have agreed that the majority of adults with autism have poor outcomes, evolving ideas of what it means to be an adult could have an impact on the outcomes that are measured. For example, some researchers have suggested that taking into account the fit between a unique person and his or her environment could reveal a more optimistic picture of outcomes for adults with autism spectrum disorders. Suggestions for future research are discussed.