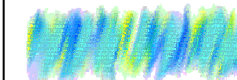
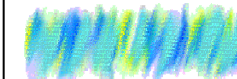


In This Edition



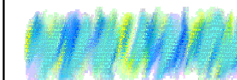
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IN THE NEWS

Dr. Michael Powers Educational Conference

Dr. Michael Powers recently presented for the Kelberman Center's Speaker Series on evidence-based approaches for treatment of autism spectrum disorders in the public school setting. Dr. Powers is currently the Director of the Center for Children with Special Needs in Glastonbury, Connecticut and is also an Assistant Clinical Professor of Psychology at the Yale Child Study Center, Yale University. He specializes in autism and related developmental disabilities.

The free presentation sponsored by the Kelberman Center was given on June 11th at the Mohawk Valley Community College Campus. Dr. Powers addressed a large audience of approximately 200 professionals and family members about the need for evidence-based programs for children with autism. Injecting humor and encouraging participation were a few ways which he included the audience to make this an interactive experience. Dr. Powers emphasized the importance of researching and understanding educational and treatment approaches, how to determine effective versus popular theory to support method, and the current literature and information available for support. He also suggested that even the most effective and proven methods are most successful when they incorporate a thorough assessment of the individual's specific needs and unique learning styles.

Three main areas of focus for evidence-based practice were Mand Training, Pivotal Response Training, and Incidental Teaching. Mand Training is a system of encouraging communication through the use of natural reinforcers selected by the child. Pivotal Response Training teaches children through choice and reinforcement of approximations, and similarly to Mand Training, the reinforcement is directly related to the request. Incidental Teaching designs the environment in a way to encourage the child to engage with the setting, activities, and other individuals. This practice disguises the teaching method to appear to not be a traditional educational and reciprocal exchange. All three methods are derived from basic learning theory and incorporate strengths-based approaches, child-centered activities, and scaffolded teaching designs. Goals for these approaches are to allow the child to grow developmentally and cognitively to a point where independence, spontaneity, and self-motivation result. Important themes to all three practices include letting the child have control and choices; to have consistency, contingency, and contiguity across all methods and environments; to allow for generalization into other settings and throughout the day; and to have a functional goal to lead the instruction.

Test for Autism?

The University of South Australia and Imperial College London have worked together on research that could someday be used to develop a biological diagnostic test for autism diagnosis. The two universities matched three groups of children to test their urine chemical makeup; one group of 39 children with a diagnosis of an autism spectrum disorder, a group of their typically developing siblings (n=34), and a control group of healthy children with no diagnosis (n=34). A total of 107 children ages three to nine years that had met the proper criteria, as outlined by the DSM-IV-TR, for having a diagnosis [if applicable] were included. The findings of the study have proven that a few chemicals are significantly different between the groups, including some that are involved in cell membrane stabilization, physiological functioning, and the metabolism process. The researchers also presented some limitations to their study. First, the research in no way makes connections between the causes of the difference in chemical levels, as they do not indicate if the levels are caused by autism or vice versa. They also did not consider if the children in the study were on medications or special diets that would interfere with the results. Future studies would need to address both matters as well as to be able to replicate the findings to a larger group. These findings do indicate that in the future a simple urine test, similar to those used for pregnancy, could be available for early diagnosis of autism in children as young as six months.

Journal of Proteome Research
(2010) 9:2996-3004
DOI: 10.1021/pr901188e

For more information:
www.colerainetimes.co.uk
www.dailymail.co.uk

PUBLISHED RESEARCH

Journal of Autism and Developmental Disorders

(2010) 40:620-628
DOI: 10.1007/s10803-009-0912-3

Raising a child with autism can be stressful.

Sawyer, M. G.; Bittman, M.; La Greca, A. M.; Crettenden, A. D.; Harchak, T. F.; & Martin, J.

While mental health has been known to decline in mothers of children with developmental disabilities for many years, there has not been much specific focus on mothers of children with autism. The results proved that mothers of children with autism report higher rates of mental health problems than the normalized sample for the measures. Mothers that felt the highest degree of feeling like they did not have enough time to do all they needed was associated with higher levels of maternal mental health problems, regardless of how much time they spent care giving. One surprising finding was the severity of the child's behavior did not predict level of maternal problems. These findings highlight the need for prevention programs, social support, and mental health options for mothers of children with autism.

[Link to Journal](#)

Journal of Autism and Developmental Disorders

(2010) 40:509-515
DOI: 10.1007/s10803-009-0896-z

Language acquisition in children with autism

Koegel, L. K.; Koegel, R. L.; Green-Hopkins, I.; & Barnes, C. C.

The Koegels and colleagues composed a small study of three preschool aged children with an autism diagnosis to examine if self-initiated questions could be taught and then generalized. All children had an autism diagnoses, were able to communicate verbally, had vocabularies ranging from 50 to 200+ words, and already displayed a deficit in verbal question asking. Koegel et al. designed weekly sessions to practice asking "where?" questions, with reinforcers of the child's interest available upon successful completion. In this particular study, all three children were successful in asking the questions in the structured intervention setting, additionally they were able to apply it to their home setting as well. Previous research has not had as promising results, with a significant possibility for this trial's success due to the use of tangible motivational rewards. Educators/parents should consider such techniques when building such asking skills.

[Link to Journal](#)

Research in Autism Spectrum Disorders

(2010) 4:444-449
DOI: 10.1016/j.rasd.2009.10.018

Toddler motor skill ability

Matson, J. L.; Mahan, S.; Fodstad, J. C.; Hess, J. A.; & Neal, D.

Researchers investigated differences between gross and fine motor skills in infants and toddlers diagnosed with autistic disorder, pervasive developmental disorder-not otherwise specified (PDD-NOS), and atypically developing controls without an ASD diagnosis. More toddlers with autistic disorder had impairments on gross and fine motor skills than toddlers with PDD-NOS or atypical development. Additionally, toddlers with PDD-NOS had greater gross and fine motor impairment than the atypically developing toddlers. Concerning gross motor skills, there was no statistically significant difference between the PDD-NOS and atypical toddlers, and the PDD-NOS and autistic toddlers. The difference between autistic and atypically developing toddlers in gross motor skill impairment was statistically significant, with atypical children displaying 8% and 23% less impairment on gross and fine motor development, respectively. Findings regarding fine motor skills were very similar; impairment was greatest in toddlers with autism and least in atypically developing toddlers. Also, the difference in fine skill impairment was only significant between autistic and atypically developing toddlers. Findings suggest that severe core symptoms of autism spectrum disorders could result in a plethora of difficulties. Findings also suggest that motor delays are present early in life and should be targeted for treatment early. This study is the first to test motor skill impairment between toddlers at such a young age with autistic disorder, PDD-NOS, or atypical development without an ASD diagnosis and the first to use BDI-2 to measure motor skills.

[Link to Journal](#)

Research in Autism Spectrum Disorders

(2010) 4:340-345
DOI: 10.1016/j.rasd.2009.10.009

Developmental regression in autism

Matson, J. L. & Kozlowski, A. M.

Autistic regression is often referred as occurring when a child has developed and then declined in core symptom areas of autism spectrum disorders; communication, language, and stereotyped behaviors. The researchers conducted a meta-analysis of prior studies to understand autistic regression. Key findings were that a majority of children lost either language or social skills or both, and thus it can be concluded that this is a core feature of the disorder. The authors also found that children who later regressed in their development were found to have displayed principal deficits of autism early on in life. The authors could not conclude any findings regarding the differences regarding the children who regressed and those did that did not based on the reviewed studies.

[Link to Journal](#)

IMPORTANT ONGOING STUDIES

Recently, various research study results have been published either in support or in speculation of treatments specified for individuals with autism spectrum disorders. Gluten and dairy/casein free diets have been explored by both families and practitioners, as well as treatments related to eliminating sugar, processed foods, and increasing organic or natural food intake. Other areas of interest include environmental, physiological, or biological factors with current research focusing on some of these areas.

Johns Hopkins University & Kennedy Krieger Institute; Acupressure and Acupuncture as an Intervention with Children with Autism

Investigating the Use of Acupressure and Acupuncture with Children with Autism II, Kennedy Krieger Institute, Baltimore, Maryland. Principal investigator: Lana Warren, Ed. D.

A small sample of children, age six to ten years old, with autism spectrum disorders will be admitted into a study using acupressure, later introducing acupuncture, to treat regulation and behavioral symptoms associated with their diagnosis of autism. The study procedures should be completed within a time span of approximately three months, with the children undergoing procedures twice a week during that time. Specific areas of the body will be utilized for this study, the arms and legs being the primary focal points, and areas will be consistent between all children. The attention to the arms and legs will then transfer to other areas of the body; heart, stomach, kidneys, liver, and areas deemed necessary by the practicing acupuncturist. Participation in this study will also require the parents to submit questionnaires and diary entry type observations. The researchers are looking to see if the procedures will be beneficial to the children's health and well-being, if the parents can use the techniques for bonding and de-escalation of troublesome situations, and also to learn about behavior functions.

For trial information visit
[Link to Clinical Trial](#)

National Institutes of Health Clinical Center; Cholesterol and Autism Spectrum Disorders

Cholesterol in Autism Spectrum Disorder (ASD): Characterization and Treatment, National Institutes of Health Clinical Center. Principal investigator: Not Given

Some previous research studies have shown an association between the low cholesterol levels in some individuals with autism spectrum disorders and the differing behaviors that they exhibit. Individuals with Smith-Lemli-Opitz syndrome are unable to make cholesterol in their bodies. Some individuals with Smith-Lemli-Opitz syndrome, a disorder that is apparent from birth and oftentimes comorbid with autism, have behavioral characteristics that have been improved through added cholesterol. The research being conducted by the National Institutes of Health Clinical Center will be used to decide if raising the cholesterol levels, through diet in children with autism and low cholesterol levels, benefits them or improves their behaviors.

For trial information visit
[Link to Clinical Trial](#)

Massachusetts General Hospital; Gluten Free-Dairy Free Diets and the Effects on Autism Spectrum Related Gastrointestinal Disorders

A Study to Assess the Role of a Gluten Free-Casein Free Diet in the Dietary Management of Autism Associated Gastrointestinal Disorders, Massachusetts General Hospital, Boston, Massachusetts. Principal investigator: Harland S. Winter, M.D.

Gluten Free-Casein Free diets have recently gained mass appeal from families of individuals with autism spectrum disorders. Theories and data fluctuate in regards to the efficacy of the use of these diets, thus the Massachusetts General Hospital, along with Nutricia North America, are looking to assess its success with individuals with autism spectrum disorders and dual diagnoses of a digestive disorder.

The study will be carried out over 14 weeks with children fitting the above criteria who also present symptoms of gastrointestinal distress at the time of the study. The weeks will be separated in half as part of the measure, and all children will be on a gluten free-casein free diet for the duration of the study. The children will be divided into two groups, with each group taking a control placebo that is gluten-casein free or a product with gluten and casein, for each of the two portions of the trial. Children's placements will be randomized.

The study hopes to prove if the gluten and casein free diet has an effect on those individuals' gastrointestinal distress and improves their symptoms. The research also hopes to determine if the diet helps to improve the stereotyped behaviors displayed by those on the spectrum.

For trial information visit
[Link to Clinical Trial](#)