

PUBLISHED RESEARCH

Research in Autism Spectrum Disorders

2010, 4, 168 - 185
 doi:10.1016/j.rasd.2009.09.001

An Evidence Based Approach for Physicians to Complete Physical Exams with individuals with ASD.

Cuvo, Anthony; Reagan, Amanda; Ackerlund, Julie; Huckfeldt, Rachel; & Kelly, Cherry, Southern Illinois University

Researchers implemented personalized interventions to foster compliance with a 10-component physical examination for 6 children diagnosed with Autism Spectrum Disorders. Interventions were structured from exam pretests interpreted with respect to escape from aversive stimuli and specific skill deficits. Multi-media training packages, including a priming DVD, various gestural and vocalized prompts, preference assessment, shaping, differential behavioral reinforcement, escape extinction, and contact desensitization successfully fostered productive medical examinations. Results are presented as a model for assessment and intervention implementation for medical procedures. The study was limited by the nature of the medical procedures examined; some common and potentially aversive medical procedures (e.g. vital signs, growth parameters) were not included. This limitation is addressed as a possible area of future research; however the success of the intervention on other aversive medical procedures is taken as support for the method's generalizability.

Journal of Developmental Physical Disabilities

2010, Published Online Prior to Print
 doi: 10.1007/s10882-009-9184-2

Methods of Early Diagnosis and Tracking for Autism and Pervasive Developmental Disorder Not Otherwise Specified (PDDNOS)

Matson, Jonny and Sipes, Megan, Louisiana State University

Investigators reviewed the literature on early diagnosis measures for Autism and PDDNOS. Twenty-two such measures were identified. Reviewers focused on the 7 measures with the most citations: the ADI-R, ADOS, CHAT, M-CHAT, Q-CHAT, CHAT-23, and BISCUT. Each scale is discussed in terms of what population it has been applied to most frequently, notable investigations using each, as well as strengths and limitations. Trends in application are also discussed. Reviewers emphasize, however, that no one scale should be thought of as a 'gold standard'. Rather, they provide a cursory discussion of each and provide ample direction for more in-depth analysis so that readers can identify the scale or scales that best suit their needs.

[Link to Abstract](#)

Research in Developmental Disabilities

2010, 31, page 287 – 298

The Impact of Asperger Syndrome on Adolescent and Young Adult Males.

Cederlund, Mats; Hagberg, Bibbi; and Gillberg, Christopher, Göteborg

Researchers conducted a follow-up study on 76 adult males diagnosed with Asperger syndrome (AS) during childhood, using both the patient and parent Asperger Syndrome Diagnostic Interview (ASDI) and several self-report measures assessing emotional well-being and cognitive functioning.

Longitudinal analysis revealed a trend towards improvement in males with AS. Investigators also found that, several years after their diagnosis, most men were well aware of their deficits, with the important exception of their social functioning.

Differences between patient and parent report indicated that **many patients underrated their social deficits.** Researchers urge that patients' awareness of their deficits be taken into consideration during diagnosis as well as during the design of educational programs. Stress was also placed on addressing patients' problems at an early age.

[Link to Journal](#)

Journal of Developmental Physical Disabilities

2010, 22, 83 - 100
 doi: 10.1007/s10882-009-9171-7

Review of Literature Related to the Social, Emotional, and Behavioral Adjustment of Siblings of Individuals with Autism Spectrum Disorder

Meadan, Heddal; Stoner, Julia; & Angell, Maureen, Illinois State University

Reviewed 12 articles examining adjustment of siblings of individuals diagnosed with Autism Spectrum Disorders, and interpreted findings in terms of 6 themes previously identified in examinations of siblings of individuals with disabilities. **Findings were mixed, with a variety of factors (e.g. family socioeconomic status, gender, age, coping style, and family size) exerting heterogeneous effects across studies. Reviewers urge the application of family systems theory in examining the effect of a disability in the family, stressing that the individual should be seen as a part of a system as opposed to an isolated case within it.** Limitations include a small review pool, and methodological concerns with the articles examined: many articles examining siblings of disabled individuals suffer from small samples of convenience.

[Link to Abstract](#)

Research in Developmental Disabilities

2010, 31, 331 - 337

Teaching abuse-protection skills to people with intellectual disabilities: A review of the literature

Doughty, Adam and Kane, Lindsey, College of Charleston

Examined empirical examinations of abuse training for individuals with intellectual disabilities published since 1997. Six articles met the criteria. Reviewers identified limitations in the literature, most notably a bias of focus. All six articles dealt with sexual abuse training, four exclusively. The remaining addressed verbal and physical abuse as well. Notably, all articles had exclusively female participant pools, despite literature documenting sexual abuse of men with intellectual disabilities. Also of concern was a relative lack of investigations geared at adolescents and children: only one of the six had participants under the age of 21. Furthermore, all studies characterized their participants as having relatively effective communication skills, leaving in question the effectiveness of training more severely impaired individuals. Reviewers stressed the importance of increased heterogeneity in both abuse type and participant demographics in future studies. The use and effectiveness of in-situ behavioral training and follow-up trainings as a part of the empirical investigations was also reviewed. **Investigators found that role-playing during training was a good predictor of the individual's ability to generalize training to non-lab conditions. This was in stark contrast to solely cognitive based approaches, which were found to be less effective.** Limitations of the literature are addressed in terms of future research trajectories, mainly focusing on increasing the populations studied, isolating the most effective training strategies, and broadening the types of abuse trained for.

[Link to Journal](#)

doi:10.1016/j.neuron.2010.01.024

The Implication of Key Proteins in Abnormal Sensory Stimulation Seen in Fragile X.

Harlow, Emily; Till, Sally; Russel, Theron; Wijetunge, Lasani; and Kind, Peter, Northwestern University Feinberg School of Medicine & University of Edinburgh

Investigators used an animal model of fragile X syndrome to examine possible cellular mechanisms driving abnormal sensory stimulation observed in diagnosed humans. Using a variety of techniques, **researchers found a specific protein involved in the communication between neurons that was not expressed properly. This prevented normal communication between cells, ultimately leading to a delay in the development of the brain area that processes sensory information.** These results implicate a specific cellular anatomical deficit that could play a role in the abnormal responses to sensory stimulation observed in human fragile X. The timing of development for different cortical areas is extremely important for the proper formation of neural circuits, and a delay in one area caused by abnormal protein expression could severely impair the brain's ability to properly develop.

[Link to Abstract](#)

Research in Developmental Disabilities

(2010) 31:664-671

doi: 10.1016/j.ridd.2010.01.005

How to Effectively Measure Needs for Families of Individuals with Developmental Disabilities.

Leung, Cynthia; Lau, Joseph; Chan, Grace; Lau, Beverly; Chui, Mandy, The Hong Kong Polytechnic University

Identifying and prioritizing service needs can be a big challenge for service coordinators. Understanding this needs, researchers developed a measure aimed at assessing service needs of families with developmentally disabled children. Based on scores from the norming group, the measure provided an understanding of service needs. Scores correlated with parental stress levels and were able to differentiate between clinical and non-clinical families. Authors detail the individual components of the measure, and discuss the collapsing of several variables during the validation process. Limitations include a need for increased diversity in age group: participants were exclusively primary school aged, and there exists a possibility that needs of families may change with the age of the child. Additionally, the measure was administered only after a diagnosis had been made. Authors suggest trajectories for future studies.

Research in Autism Spectrum Disorders

4 (2010) 323-339

Gluten-free and Casein-free diets in the treatment of Autism Spectrum Disorders: A Systematic Review

Mulloy, Russell Lang, Mark O'Reilly, Jeff Sigafoos, Giulio Lancioni, Mandy Rispoli

This paper reviewed existing research on the effects of gluten-free and/or casein-free (GFCF) diets for the treatment of ASD. Of the 134 articles screened for possible inclusion, only 14 met the rigorous and well-documented inclusion/exclusion criteria. These 14 studies included a total of 188 participants, sample sizes from 1-50 participants, and age of participants ranging from 2-17 years.

A paucity of research and poor methodology in existing studies, were identified as limiting factors in the current review. The reviewers were only able to identify 8 studies that utilized a recognizable experimental design and only 3 of those met sufficient experimental rigor.

Based on the review, it was determined **that current research does not support the use of GFCF diets for the treatment of ASD.** Furthermore, the reviewed literature did not support the Opioid-Excess Theory. The study concluded by stating: *"such diets should only be implemented in the event that a child with ASD experiences acute behavioral changes, seemingly associated with changes in diet, and/or medical professionals confirm through testing the child has allergies or food intolerances to gluten and/or casein."*

<http://ees.elsevier.com/RASD/default.asp>

CHECK OUT THESE WEBSITES AND PUBLICATIONS

A tip from the Family Resources Network

Ablegamers is a website devoted to the issues of video gaming while disabled. Gamers with special needs can access this website:

<http://artstechnica.com/news/2010/01/dragon-age-wins-high-marks-from-disabled-gamers.ars>

The website utilizes a variety of criteria to review and rate games based on their accessibility.

Sensory Friendly Films

AMC Entertainment (AMC) and the Autism Society have teamed up to bring families affected by autism and other disabilities a special opportunity to enjoy their favorite films in a safe and accepting environment on a monthly basis with the "Sensory Friendly Films" program.

In order to provide a more accepting and comfortable setting for this unique audience, the movie auditoriums will have their lights brought up and the sound turned down, families will be able to bring in their own gluten-free, casein-free snacks, and no previews or advertisements will be shown before the movie. Additionally, audience members are welcome to get up and dance, walk, shout or sing - in other words, AMC's "Silence is Golden[®]" policy will not be enforced unless the safety of the audience is questioned.


For more information and to locate participating theaters click:

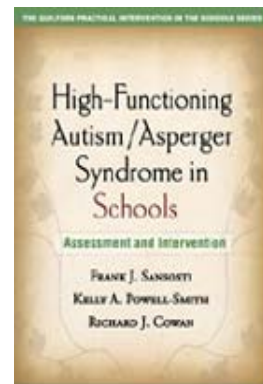
<http://www.autism-society.org/site/PageServer?pagename=sensoryfilms>

High-Functioning Autism/Asperger Syndrome in Schools: Assessment and Intervention

Frank J. Sansosti,
Kelly A. Powell-Smith,
and Richard J. Cowan

May 2010, 258 Pages,
Size: 8" x 10½"

A Paperback Original
ISBN 978-1-60623-670-3
Cat. #3670
Price: \$35.00
[add to cart](#) 



"Meeting a growing need for school-based practitioners, this book provides vital tools for improving the academic, behavioral, and social outcomes of students with high-functioning autism or Asperger syndrome (HFA/AS). Research-based best practices are presented for conducting meaningful assessments; collaborating with teachers, students, and parents to prevent school difficulties and problem solve when they occur; and developing effective individualized education programs (IEPs). In a large-size format with lay-flat binding to facilitate photocopying, the book features a wealth of practical prevention and intervention strategies, illustrated with concrete examples. Over a dozen reproducibles include interview forms and observation sheets. "

TRIVA

**THE FATHER OF BEHAVIORAL RESEARCH,
B.F. SKINNER, WAS A GRADUATE OF OUR
OWN LOCAL HAMILTON COLLEGE.**

IMPORTANT ONGOING STUDIES

Two important large-scale, multi-site studies are currently investigating genetic and environmental risk factors for autism. Each study is focusing on a collaborative prospective research of more than 2000 infant siblings of children with autism. Siblings are thought to demonstrate a higher genetic risk for developing the disorder. Many of these infants will be followed from close to conception through early childhood. In a subset of high-risk infants, detailed measures of brain development will be taken using state-of-the-art neuroimaging. The intent of these studies is to provide new insights into the genetic and environmental risk factors that contribute to autism, as well as contributing data useful to studies searching for the earliest possible diagnosis of autism spectrum disorder.

Early Autism Risk Longitudinal Investigation (EARLI), Drexel University.

Principal investigator Craig Newschaffer, Ph.D. Also involves leading autism researchers from the Children's Hospital of Philadelphia, University of Pennsylvania, Johns Hopkins Bloomberg School of Public Health, Kennedy Krieger Institute, Kaiser Permanente Division of Research in Oakland, California and University of California Davis.

EARLI will explore possible risk factors and biological indicators for ASD during the prenatal, neonatal and early postnatal periods. The project will enroll and follow up to 1200 mothers of children with autism at the start of a new pregnancy and document the development of their newborn siblings through age three. This study will provide a unique opportunity for studying possible autism environmental risk factors and biomarkers during different developmental windows as well as an opportunity to investigate the interplay of genetic susceptibility and environmental exposure.

Environmental exposures during pregnancy and infancy are another significant aspect of the EARLI study. A number of environmental exposures, including dietary and lifestyle factors, medications and personal care product use, and suspected neurotoxicants including persistent organic pollutants will be investigated with data and samples collected in EARLI. One of the goals of EARLI study is to untangle and identify some of the complex and likely interrelated causes of autism.

For more information about the EARLI Network visit <http://earlistudy.org>.

Infant Brain Imaging Study (IBIS), UNC-Chapel Hill, Principal investigator, Joseph Piven, M.D. Also involves researchers from, Children's Hospital of Philadelphia, University of Washington, and Washington University-St. Louis

IBIS involves examination and correlation of the brain and behavioral changes in very early life that may mark the onset of autistic symptoms. The project will utilize brain-imaging techniques to monitor and analyze the brain development of 544 very young infant siblings of children with autism to help to identify brain differences in children who develop ASD. Brain images will of subjects who go on to develop ASD will be compared to those of other "typical" infants, to identify differences between children who develop autism and those who do not. This research could offer new insights that lead to earlier diagnosis of ASD.

Chapel Hill brain imaging study will not only examine the brain but also behavioral changes through MRI imaging and behavioral assessments at 6, 12 and 24 months of age. UNC researchers have previously found that children with autism have larger brains, from five to 10 percent larger at two years of age than children without autism, and this enlargement or overgrowth of the brain starts around the end of a child's first year of life. It is the hope of the UNC-Chapel Hill investigators that a deeper understanding of the pathophysiology underlying the development of autism will eventually lead to rational approaches to early intervention."

For information about the IBIS Network, visit www.ibis-network.org

Participants Needed for Study Examining Brain Development in Infants Who Have Siblings with Autism

Researchers at four universities (*Children's Hospital of Philadelphia, University of NC-Chapel Hill, University of Washington, and Washington University-St. Louis*) are actively recruiting families with infants to participate in a study to increase the understanding of the timing and brain development of very young children with autism.

Infants 6 months of age or younger who have an older sibling with a diagnosis of ASD are the prime participants in this study. Participants may also enter the study at 6 months or younger if their infant has a diagnosis of Fragile X. Participants will travel to their closest study location to receive developmental and behavioral assessments, an MRI scan of the brain and screening for Fragile X Syndrome. MRI scans associated with the project are provided at no cost to the family. Participants will receive compensation for participation as well as reimbursement for study related travel. Participants will also be given any new information gained at the completion of the study and families determined to have infants at high risk for developing autism will be receive assistance with referrals for services.

Interested families should visit <http://www.ibis-network.org>