Current Trends and Issues in Autism Services

Presented by Dr. Todd Harris,
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• The following presentation will:

  – Review the history of autism
  – Discuss current issues and trends
  – Discuss upcoming changes in the DSM
  – Review evidence-based practices for autism services
The History of Autism

• “Autism has a long past, but a short history.”

• **1943**: Leo Kanner published a paper describing 11 children that he was treating at Johns Hopkins.

• **1944**: Hans Asperger, a German scientist, describes a milder form of autism (“Little Professors”).

• **1960s**: Bruno Bettelheim began to publish theories regarding etiology that focused upon cold and emotionally distant mothers.
The History of Autism

• **1960s and 1970s**: Bernard Rimland, Eric Schopler, and others began to provide evidence that autism is a biological disorder with a genetic basis. Treatments were mostly related to medication and/or aversive contingencies.

• **1987**: Ivar Lovaas publishes a comprehensive paper on the efficacy of Applied Behavior Analysis

• **1988**: Oscar winning movie “Rainman” is released
The History of Autism

- **1980s to the Present:**
  - Many more studies are completed that empirically demonstrate the effectiveness of ABA; the technology continues to evolve
  - Positive Behavior Support is more widely used
  - Educational and community integration is significantly increased
  - Wide variety of ideas, theories, treatments, and controversies regarding autism have surfaced

- Let’s watch a videotape (The History of Autism)
What causes autism?

- Although the specific reason is still unknown, we know it is biologically caused.
- Genetics also play a strong role.
- Scientists believe that there are differences in the parts of the brain that control social and emotional behavior.
Theories of Etiology

– Problems During Childbirth:

• Prenatal variables may include such events as maternal infections, exposure to pesticides, and maternal stress

• Perinatal events can include low birth weight, gestation duration, and oxygen deprivation

• Postnatal contributors may include gastrointestinal or immune system abnormalities, allergies, and exposure of children to drugs, infection, certain foods, or heavy metals
Theories of Etiology

– Environmental Contributors; specifically the MMR Vaccine
  – Many believe that vaccines play a direct role in the development of autism
  – Various studies, recently discounted, contributed to this belief
Theories of Etiology

A word about vaccinations from the CDC Website (July 2009):

“…the weight of the (empirical) evidence indicates that vaccines are not associated with autism.”

However, there is an acknowledgement that they are committed to continuing to study the role of vaccines in the development of autism.
Autism By The Numbers

• How common is autism?

  – The Centers for Disease Control and Prevention estimates that 1 out of every 88 children will be identified as having autism
  – The boy to girl ratio is about 5 to 1
    • Autism is seen in 1 of every 54 births in boys
    • Autism is seen in 1 of every 252 births in girls
  – Autism is seen across all races, ethnic groups, and income levels
  – Rates of autism are increasing at an alarming rate (having been seen in 1 in 150 only a few years ago)
Current Issues in Autism

What’s causing the dramatic increase in autism?

– It may actually be occurring more often
– Increases in awareness of symptoms in medical and mental health/education professionals
– Higher level of community awareness activities
– Potential impact of environmental variables
– A broader, more inclusive definition of the “spectrum” was being used

• The upcoming changes in the DSM may change trends in autism prevalence rates
Changes to the DSM

• A new edition of the DSM (DSM-5) will be released in May 2013

• Consolidates all of the previous categories under Autism Spectrum Disorders (ASD)
  – Asperger Syndrome, Autistic Disorder, and PDD-NOS will no longer be listed as disorders
  – A new diagnostic category, Social Communication Disorder, is defined as an impairment of pragmatics and will be listed under Communication Disorders

• Sources: Levy, Miller, and Stein, 2012; Autism Speaks
Changes to the DSM

• The current three symptom domains of social impairment, communication deficits and repetitive/restricted behaviors will become two – social communication impairment and repetitive/restricted behaviors.

• New “severity scale” will also be used with three levels (determined upon severity and needed support).

Sources: Levy, Miller, and Stein, 2012; Autism Speaks
Changes to the DSM

- Not enough evidence to know the impact of the new criteria on prevalence rates

- May be easier for children with Asperger Syndrome to receive more school-based services

Sources: Levy, Miller, and Stein, 2012; Autism Speaks
Evidence-Based Practice (EPB) in Autism Services
What does the term EBP mean?

• EBP is a term that originated in the health care field

• “EBP is the integration of the best available research evidence with clinical expertise in the context of patient characteristics, culture, and context.”

  – (APA Presidential Task Force on EBP, 2006)
Selecting the Right Treatment

• Beyond research findings, there are other influential variables based upon contextual fit. More specifically, they include (from the NSP Report):

• Professional Judgment - based upon knowledge of the individual and indications and contraindications of the intervention
Selecting the Right Treatment

• Values and Preferences- of the individual, the family, and other stakeholders

• Capacity- will staff be able to consistently implement the intervention given the available resources (staffing, clinical, supervisory, and environmental)
EBP Resources

• Evidence Based Practices from the National Professional Development Center on ASDs
  – http://autismpdc.fpg.unc.edu

• Interventions for ASDs (2009, State of Maine); a committee of experts analyzed outcomes of 41 different interventions published in peer-reviewed journals

• The National Standards Project (The National Autism Center, 2009) reviewed and analyzed 775 autism research articles (using approximately 45 experts in the autism field)
• Let’s take a look at the NAC Video

http://www.youtube.com/watch?v=1B4aJuB4nUk
Established Treatments (sufficient scientific evidence to say with confidence that an intervention produces favorable outcomes)

- Antecedent Package
- Behavioral Package
- Comprehensive Behavioral Treatment
- Joint Attention
- Modeling
- Naturalistic Teaching Strategies
National Standards Project

- Established Treatments
  - Peer Training Package
  - Pivotal Response Treatment
  - Schedules
  - Self-Management
  - Story-based Intervention Package

- These are strategies that use ABA principles
Emerging Treatments (one or more studies produced highly favorable outcomes)

- Augmentative and Alternative Communication
- Cognitive Behavioral Intervention
- Developmental Relationship-based Treatment
- Exercise
- Imitation-based Interaction
- Imitation Training
- Language Training
National Standards Project

- Emerging Treatments
  - Massage/Touch Therapy
  - Multi-component Package
  - Music Therapy
  - Peer-mediated Instruction Arrangement
  - PECS
  - Reductive Package
National Standards Project

- Emerging Treatments
  - Scripting
  - Sign Instruction
  - Social Communication Intervention
  - Social Skills Package
  - Structured Teaching
  - Technology-based Treatment
  - Theory of Mind Training
National Standards Project

- Unestablished Treatments (little or no evidence in the scientific literature that suggests effectiveness)
  - Academic Interventions
  - Auditory Integration Training
  - Facilitated Communication (with a note of caution regarding its use)
  - Gluten- and Casein-Free Diets
  - Sensory Integration Package

- Access the NSP easily through Google
Other Unestablished Treatments

- Dog or Dolphin Therapy
- Art Therapy
- Chelation
- Vitamin Therapy
- Prism Glasses
- Patterning
• McNellis and Harris (in preparation)

– We were asked to write an article that focused upon best practices in residential treatment for children and adolescents with an autism spectrum disorder
Best Practices in Residential Treatment

• Unfortunately, we were unable to find best practice models for residential treatment

• Furthermore, some recent research suggested that residential treatment has not been effective in many cases for these children

• Therefore, we proposed best practices and essential program components based upon existing research
Best Practices in Residential Treatment

• Best Practices:
  – The use of ABA instructional methods, including:
    • Assessment of strengths, needs, preferences, and learning style
    • Goal statements and behavioral objectives
    • Descriptions of:
      – Prompting procedures
      – Reinforcement systems
      – Lesson formats and error correction
      – Generalization and maintenance plans
      – Objective data collection systems and analysis
Best Practices in Residential Treatment

- Best Practices:
  - Environmental Milieu Expectations:
    - Predictable and structured routines
    - Imbedded functional communication and social skills training
    - The use of visual supports
    - Errorless learning and shaping
    - Community-based instruction
Best Practices in Residential Treatment

• Essential Program Components:
  – Family inclusion, engagement, and training
  – Positive behavior support practices
  – Staff training and behavioral supervision
  – Intensive treatment services
  – Comprehensive discharge planning
Best Practices in Residential Treatment

• Next steps for us as a field:

  – Create a well-defined program model based upon existing best practices in autism services

  – Conduct research that will systematically assess effective of this model

  – Once determined effective, manualize this approach and disseminate it to stakeholders (families, providers, funders)
Questions?