

An Introduction to the National Autism Conference and Applied Behavior Analysis

Monday, August 3, 2015
National Autism Conference
Pennsylvania State University
Willow Hozella



Pennsylvania Training and Technical Assistance Network

PaTTAN's Mission

The mission of the Pennsylvania Training and Technical Assistance Network (PaTTAN) is to support the efforts and initiatives of the Bureau of Special Education, and to build the capacity of local educational agencies to serve students who receive special education services.

Session Objectives

- Provide an overview of the conference
- Provide review of sessions by level and topics
- Provide background information on the field of Applied Behavior Analysis and its relation to autism interventions and the conference sessions
 - Review terms and concepts that may be part of many NAC sessions...*a helpful review!*

What Are Autism Spectrum Disorders? (DSM V Summary)

- Social-Communication deficits and Repetitive Behaviors, such as:
 - responding inappropriately in conversations
 - misreading nonverbal interactions
 - having difficulty building friendships appropriate to their age
 - In addition, people with ASD may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate items
- The symptoms of people with ASD will fall on a continuum (range of symptoms from mild to severe)
- Spectrum concept allows clinicians to account for the variations in symptoms and behaviors from person to person
- Individuals with ASD must show symptoms from early childhood, even if those symptoms are not recognized until later
- Adapted from: <http://www.dsm5.org/Documents/Autism%20Spectrum%20Disorder%20Fact%20Sheet.pdf>

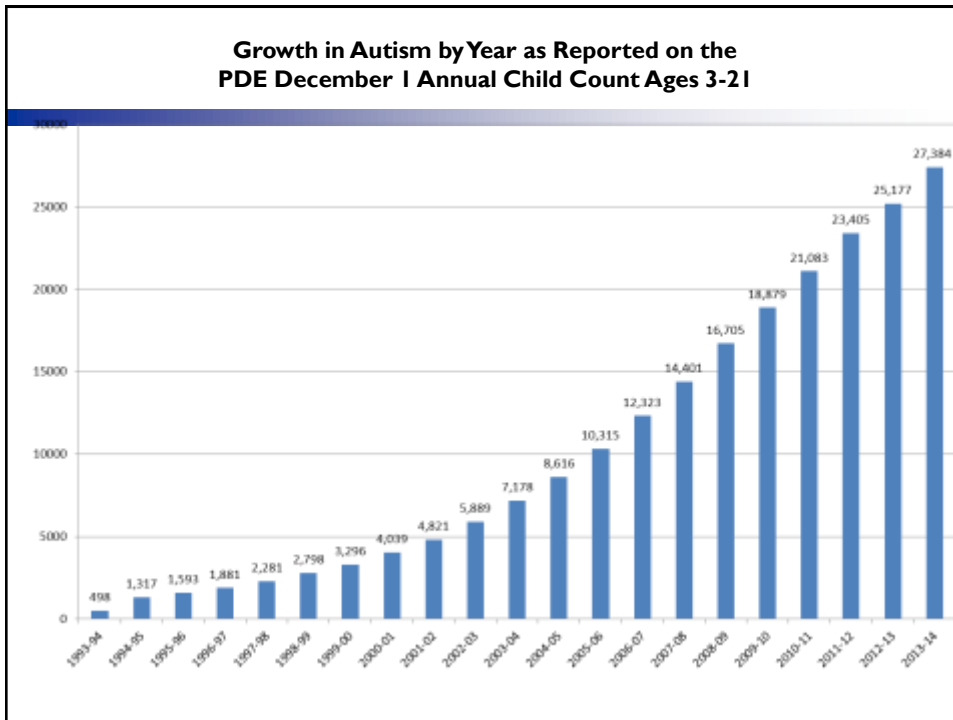
What are Autism Spectrum Disorders?

- Developmental Disability
- Diagnosis derived from behavior
 - No brain scan or blood test
 - Assumed biological disorder most likely of genetic origin characterized by qualitative differences in:
 - Social communication
 - Repetitive and stereotyped behaviors

IDEA/Chapter 14 Autism Definition

“Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction generally evident before 3 years of age, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child’s educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (b) (4) of this section. A child who manifests the characteristics of “autism” after age 3 could be diagnosed as having “autism” if the criteria in paragraph (c) (1) (i) of this section are satisfied.”

- No subtypes
- Autism and educational performance adversely affected



The Evidence for ABA and Autism Treatments

- National Autism Center Standards Report
- Maine Administrators Report
- Missouri Autism Guidelines
- Numerous research articles published in a wide range of behavioral, educational and disability focused peer reviewed journals
- Student level data: probably the strongest argument for ABA

The National Standards Project

(National Autism Center)

- Identified a need for a transparent process to evaluate most recent research (up to the year 2007) and provide information about the strength and evidence supporting treatment options for both children and adolescents with autism.
- The National Autism Center's Standards Report:
 - Initially reviewed 7,038 abstracts of research
 - Rigorous review process led to a total of 775 studies being retained for final analysis

Standards Report Identified 11 Effective Treatments

- Antecedent Package - 99 studies
- Behavioral Package - 231 studies
- Comprehensive Behavioral Treatment for Young Children - 21 studies
- Joint Attention Intervention - 6 studies
- Modeling - 50 studies
- Naturalistic Teaching Strategies - 32 studies
- Peer Training Package - 33 studies
- Pivotal Response Treatment - 14 studies
- Schedules - 12 studies
- Self-management - 21 studies
- Story-based Intervention Package - 21 studies

NAC Standards Report Conclusions:

- Approximately two-thirds of the Established Treatments were developed **exclusively** from the behavioral literature (e.g., **applied behavior analysis**).
- Of the remaining one-third of the Established treatments studies are derived **predominantly** from the behavioral literature.
- This pattern of findings suggests that treatments from the behavioral literature have the strongest research support at this time
- PATTAN Autism Initiative focuses primarily on interventions derived from or relying on principles of ABA

ABA and Autism Education

The findings of the NAC's Standards Report are largely consistent with other meta-analysis:

- Maine Report
- Missouri Report
- NY State Report
- Continued publications
- ABA practices are also consistent with general effective instruction

An Overview of this Conference

- Sessions planned to address wide range of interests and content levels
- Evidence base a central concern
- Education focused
- Many sessions focus on the process of ABA

Introductory Sessions

Tuesday AM:

Session 13: Beth Malow: Sleep in Children with Autism — Helping Families Get the Rest They Need

Session 14: Katrina Mellott and Heather Forbes: Teaching Communication at Home: Social Initiation and Communication Deficits Are Hallmarks of Autism

Session 16: Kim Seymour and Mike Stoehr: Postsecondary Education Transition Considerations for Students with Autism

Session 19: Barry Morgenstern: Teaching Functional Skills to Individuals with Autism and Other Developmental Disabilities

Introductory Sessions

Tuesday PM:

Session 23: Eb Blakely: Behavior Momentum: Clinical Applications of the High Probability Command Sequence

Session 26: Laura Yates: Introduction to Sign Language for Students with Autism

Session 28: Kim Seymour and Mike Stoehr: Workforce Transition Consideration for Students with Autism

Session 30: Keith Williams: Feeding Problems in Autism Spectrum Disorders: Home- and Community-Based Solutions

Session 32: Jared Campbell: Early Numeracy and Beginning Math Concepts

Introductory Sessions

Wednesday AM

Session 35: Leigh O'Brien: Social Skills: Where to Start and How Skills Streaming Can Play a Role

Session 36: Eb Blakely: Schedules of Reinforcement: Clinical Applications and Issues

Session 38: Ashlee Lamson, Jessica Dodge, Illeen Toll, David Mandell, Elizabeth Downs: Evidence-Based Practices for Preschool Students with Autism

Session 39: Aimee Miller: Effective Instruction to Develop Willing Learners

Session 40: Patrick McGreevy: Charting a Reasonable Dream

Session 41: Nina Wall, Roni Russell, Joelle Scholl, Erica Wexler: Transitioning to Adulthood: Accessing Pennsylvania's Adult Autism Programs and Resources

Introductory Sessions

Wednesday AM (continued)

Session 42: Ivy Chong: Best Practices in Early Intensive Intervention: Guidelines and Considerations

Session 43: Jared Campbell: Introduction to Math Instruction Using the CRA Model

Session 44: Wendy Fournier, Lori McIlwain: Autism-Related Wandering: Strategies for Prevention and Response

Session 46: Amiris DiPuglia: Meaningful IEP and Program Development

Introductory Sessions

Wednesday PM

Session 49: Amy McGinnis: A Behavioral Approach to Sensory Challenges

Session 54: Karen Grammas, Nichole Kopco: Overview of the Essential Components of Literacy: Connections to Instruction for Students with Autism

Session 55: Kimberly J. Herb, Mary Mikus: Early Intervention: Your First Step as an Active and Informed Parent for Your Child

Session 56: John Machella, Sharon L. Leonard, Audrey Kappel: Alternate Eligible Content/Instruction and PASA: Current Information and Future Direction

Session 57: Mark Dixon: ACT Training for Parents

Session 58: Debi Finarelli, Heather Forbes, Jaime Baker, Amy Foor: Speech Basics for Children with Autism: Strategies for the Classroom and Home

Introductory Sessions

Thursday AM

Session 62: Amy McGinnis: Teaching Handwriting to Students with Autism

Session 66: Tamara S. Kasper: Friends and Fitness: Strong Friendships! Strong Bodies!

Session 67: Tim Caldwell: Organized Knowledge and Organized Life: How the Science of Behavior Analysis Offers the Philosophy and Technology to Provide the Most Effective Treatment for Individuals with ASD

Session 68: Debi Finarelli, Heather Forbes: Using Evidence-Based Practice to Develop Speech and Language Skills

Session 69: Tina M. Lawson, Shanna Bradfield: Pennsylvania's Systemic Improvement Plan to Increase School Completion Rates for Students with Disabilities

Introductory Sessions

Thursday PM: Promising Practices (all sessions are basic!)

- Programming for Research and Evidence-Based Social Skills
- Successful Implementation of ABA/VB Programming in a Secondary Classroom: The Challenges and Successes of Developing a "First Time" ABA/VB Classroom for Learners at the Secondary Level
- Use of a Three-Tiered PBIS Model to Deliver Evidence-Based Services to Students with Autism
- Accessing Independent Leisure and Social Skills
- Teaching Secondary Students Job Skills
- Practices to Promote Social Skills in School Settings
- Supporting Effective Academic Instructional Practices in School Settings
- Natural Environment Training
- Autism at Work Pilot Program
- Closing Keynote: Evidence Knows No Boundary; Collaboration for Children Across State Lines
- Special Closing Music Presentation by Jodi DiPiazza

So What is ABA?

- It is the application of science of learning to socially significant human behavior
 - Applied: socially significant
 - Behavior: relation between environmental events and what people do (ABC analysis)
 - Analysis: uses scientific methods to establish and evaluate applications
 - It is a process, not necessarily a procedure
- Any intervention/method can use ABA; however, not all interventions do!

Board Certification

- What is a BCBA?
- What is a BCaBA?
- Why are they helpful?

Session 9: Recent Developments at the Behavior Analyst Certification Board
Melissa R. Nosik
Immediately after this session.

ABC analysis

- A is for Antecedent (before behavior)
- B is for Behavior (what a person does: observable and measureable)
- C is for consequence (after behavior)

- Video ABC analysis

Why an ABC analysis is helpful

- It avoids having to guess about un-observable events (what is going on “inside the person”)
 - Thoughts and feelings are important!
 - It’s just we can’t tell what a person is thinking or feeling
 - ABC analysis links the child to the environment
- It is optimistic because people responsible for helping others can change antecedents and consequences
- It allows for ways of checking to see that interventions really work
 - Measures the intervention (what teacher does) as well as behavior change
 - Measures how teaching effects learning

Some Applications of ABA (videos)

- Mand Training
- Discrete Trial Training
 - Errorless Teaching
 - Error correction
- Direct Instruction
- Social skill building
- Altering a school culture

What is a mand? Common terms:

- Request
- Asking for something
- A question
- Demanding
- Inquiring
- Commanding

Intro to Mand Video

Types of Mand

- Mands for :
 - items present
 - activities and actions
 - attention
 - missing items
 - items not present
 - information
 - continued conversation

Mand video Types of mands

What is a mand? The basic principle

- Want it, say it, get it.

hungry, say banana, someone gives you a banana

need to open a door, ask for key, someone gives the key

lost, ask for directions, someone gives directions

Video I and discussion

- Mand Training
“Video Sharae and Mike”

Sessions on Mand Training

- Session 21: T. V. Joe Layng, Joanne Robbins: Teaching Children to Ask Meaningful Questions (Intermediate)
- Session 52: David Roth: Advanced Mand Procedures and Protocols (Advanced)

Video 2 and discussion

- Discrete Trial Instruction
 - Errorless teaching
 - Error correction
 - Candace and Natalie

Sessions on Instruction

- Session 19: Barry Morgenstern: Teaching Functional Skills to Individuals with Autism and Other Developmental Disabilities
- Session 20: Janet S. Twyman: Technology for Teaching and Learning: Tools You Can Use Right Now
- Session 32: Jared Campbell: Early Numeracy and Beginning Math Concepts
- Session 39: Aimee Miller: Effective Instruction to Develop Willing Learners
- Session 43: Jared Campbell: Introduction to Math Instruction Using the CRA Model
- Session 54: Karen Grammas, Nichole Kopco: Overview of the Essential Components of Literacy: Connections to Instruction for Students with Autism
- Session 59: Amiris DiPuglia: Programming and Instruction for Generalization and Generativity

Video 4 and Discussion

- Social Skill Training
 - Peer to Peer manding
 - Other

- Video Sarah and Colton

Sessions on Social Skills

All sessions on teaching language will be relevant to teaching social skills (including precursor skills)!!

Session 14: Katrina Mellott, Heather Forbes: Teaching Communication at Home: Social Initiation and Communication Deficits Are Hallmarks of Autism

Session 18 & 29: Erik Carter: Supporting Social Relationships and Learning: The Power and Practice of Peer-Mediated Intervention

Session 35: Leigh O'Brien: Social Skills: Where to Start and How Skills Streaming Can Play a Role

Session 66: Tamara S. Kasper: Friends and Fitness: Strong Friendships! Strong Bodies!

Sessions on Social Skills

Session 73 & 81: Elizabeth Kemeny, Deborah Hutchins: Accessing Independent Leisure and Social Skills

Session 75 & 83: Exemplary Pennsylvania Educators: Practices to Promote Social Skills in School Settings

Video 5 and Discussion

- Altering a school culture
 - Elanco and Joey
 - Harrisburg Case Studies

Schools and Autism Interventions

Session 69: Tina M. Lawson, Shanna Bradfield: Pennsylvania's Systemic Improvement Plan to Increase School Completion Rates for Students with Disabilities

Session 71 & 79: Eileen Roberts, Sharon Kratzer: Successful Implementation of ABA/VB Programming in a Secondary Classroom: The Challenges and Successes of Developing a "First Time" ABA/VB Classroom for Learners at the Secondary Level

Session 76 & 84: Tonya Artus: Supporting Effective Academic Instructional Practices in School Settings

Behavior Analysis Key Terms

- Antecedent
 - Motivating Operation
 - Unlearned
 - Transitive
 - Reflexive
 - Discriminative stimulus
 - Stimulus control
 - Instructional control
 - Prompt

Behavior Analysis Key Terms

- Consequence
 - Reinforcement
 - Positive Reinforcement
 - Negative Reinforcement
 - Punishment
 - Extinction
 - Schedules of Reinforcement (for instance, continuous, variable ratio, interval)

A Functional Approach to Language

Mand: Asking for something (A preferred toy, activity, information, etc.)

Tact: labeling what you see, hear, smell, taste, or touch

Echoic: repeating what has been said

Intraverbal: responding with words to things that have been said (conversation, answering questions, word associations)

A Functional Approach to Language

Listener responding/receptive: Following directions, selecting things named or otherwise behaving as a listener without speaking

Motor Imitation: Doing the same thing someone else does.

Match to Sample: Putting an item or picture in proximity of something with shared characteristics.

Behavior Analysis and Language Programming

- Analysis of Verbal Behavior
 - Key environment-behavior interactions
 - Mand
 - Tact
 - Intraverbal
 - Echoic
 - Listener Responding
 - Imitation
 - Match to Sample
- Video on Verbal Operants

Sessions on Teaching Language

- Session 10 & 22: Mark L. Sundberg: Meeting the Milestones: Implementing a Verbal Behavior Program for Children with Autism
- Session 15: Dave Palmer: The Role of Establishing Basic Skill Sets That Lead to Novel Responding (Advanced)
- Session 21: T. V. Joe Layng, Joanne Robbins: Teaching Children to Ask Meaningful Questions
- Session 26: Laura Yates: Introduction to Sign Language for Students with Autism
- Session 37 & 50: Vincent J. Carbone: The Role of Joint Control in Teaching Complex Listener Responding to Children with Autism

Sessions on Teaching Language

Session 51 & 63: Francesca degli Espinosa: Teaching Verbal Conditional Discrimination: A Framework for Organizing Language Curricula to Establish Generalized Question-Answering in Children with Autism (Advanced)

Session 58: Debi Finarelli, Heather Forbes, Jaime Baker, Amy Foor: Speech Basics for Children with Autism: Strategies for the Classroom and Home

Session 59: Amir DiPuglia: Programming and Instruction for Generalization and Generativity

Session 64: Jonathan W. Ivy: Motivating Operations and Reinforcers: Further Analysis of Effects and Interaction

Sessions on Teaching Language

Session 68: Debi Finarelli, Heather Forbes: Using Evidence-Based Practice to Develop Speech and Language Skills

ABA is Effective Process for Reducing Problem Behavior

- Functional Behavior Assessment
- Functional Analysis
- Looks at how behaviors function to change the environment

- Instructional Control video

Sessions on Preventing or Reducing Problem Behavior

Session 13: Beth Malow: Sleep in Children with Autism - Helping Families Get the Rest They Need

Session 30: Keith Williams: Feeding Problems in Autism Spectrum Disorders: Home- and Community-Based Solutions

Session 34 & 47: Brian Iwata: Functional Analysis of Problem Behavior: Basic Methods, Extensions, and Challenges (repeat)

Session 39: Aimee Miller: Effective Instruction to Develop Willing Learners

Session 44: Wendy Fournier, Lori McIlwain: Autism-Related Wandering: Strategies for Prevention and Response

Session 49: Amy McGinnis: A Behavioral Approach to Sensory Challenges

Some Words About Data

- Key aspect of ABA: understanding some of this may help you at this conference!
- Human memory is quite fallible
- Data helps us remember what happened
- Data helps us see patterns of performance and behavior change
- One might not need data on every behavior, but without data people often end up guessing
- Data systems should not interfere with instruction, rather they should support teaching and learning

Types of Data

- Counts
- Timings
- Continuous
- Sampled
- Skill Probes
- Cumulative responses or skills acquired

The Analysis: Functional Relations

- Graphs are very valuable
 - They allow a quick check of how a program or intervention is working
- Tests to determine if things are working:
 - If I change the way I teach, does it consistently change what the student does?
 - Does the intervention function to change behavior?

Video

- Data systems
- Mand training and data collection: Watch Wyatt Go!

Treatment Fidelity and Staff Training

- Instruction and data will only result in good outcomes if interventions are implemented with fidelity
- Fidelity of implementation is accomplished through:
 - Competency-based training
 - On site guided practice/feedback
 - Verification of treatment fidelity

Sessions on Treatment Fidelity

Session 45: Mike Miklos: Treatment Integrity, Transcription and Supervision Workshop

Behavior Analysis and Effective Instruction

- Should be considered for students of all ages
- No matter what we teach, we should do so using interventions that have evidence of working!

Sessions on Evidence-Based Interventions

Session 11: Patrick C. Friman: Advanced Treatment Methods: The Generic Power of Behavior Analysis (Intermediate)

Session 17: Suzanne Kucharczyk: Evidence-Based Early Identification and Intervention Practices for Infants and Toddlers with ASD and Their Families

(Note: This extended session involves attending both morning and afternoon time periods.)

Session 19: Barry Morgenstern: Teaching Functional Skills to Individuals with Autism and Other Developmental Disabilities

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Sessions on Evidence-Based Interventions

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Transition

- Planning transition from school to adult life
- Planning for college
- Considerations for joining the workforce
- Accessing resources

Sessions on Transition and Employment

- Session 16: Kim Seymour, Mike Stoehr: Postsecondary Education Transition Considerations for Students with Autism
- Session 28: Kim Seymour, Mike Stoehr: Workforce Transition Consideration for Students with Autism
- Session 33: Bureau of Special Education: Follow-up Focus Meeting from 2014 Conference for Students Transitioning to Work or College
- Session 44: Nina Wall, Roni Russell, Joelle Scholl, Erica Wexler: Transitioning to Adulthood: Accessing Pennsylvania's Adult Autism Programs and Resources
- Session 77b: Tanya Regli: Autism at Work Pilot Program

With effective interventions,
together we can make a
difference!

Remember: PATTAN staff are here to help! If
you have any questions or concerns, please ask!

- Thank you for attending this session and hope you have a productive and enjoyable conference experience!

Contact Information

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Commonwealth of Pennsylvania
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