Introduction to the National Autism Conference 2019

August 5, 2019
National Autism Conference

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This Session

• Will provide a review of some basic information related to technical terminology you may hear across many sessions

• Will provide a review of the conference schedule and highlights related to areas of interest
General Conference Information

• Daily Schedule
• Lunch and snacks
• Livestreaming
• Exhibit Hall
• Conference App
• Continuing Education Credits
• Facebook and Twitter #NAC23
Focus of the Conference...

- The National Autism Conference is about instruction and autism
- It is probably the largest education conference in the world focused on education and the needs of students with autism
- Many of the sessions are focused on issues related to systematically building complex social and verbal skill sets!
What is Autism?

• Let’s look at the definition found in DSM V
• That’s DSM 299.00 in case you were wondering!
• Keep in mind that no child is “autism”: each child is an individual
• “You’ve met one child with autism, you’ve met one child with autism” P. Gerhardt
What Are Autism Spectrum Disorders? (DSM V Summary)

• Social-Communication Deficits and Repetitive Behaviors:
  – responding inappropriately in conversations
  – misreading nonverbal interactions
  – having difficulty building friendships appropriate to their age
  – may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate items

• The symptoms fall on a continuum (from mild to severe)

• Variations in symptoms and behaviors from person to person

• Symptoms occur from early childhood, even if those symptoms are not recognized until later

Adapted from:
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
What does the literature say about effective instruction and autism?

- National Autism Center Standards Reports (2009; 2015) probably provides the most thorough and relevant summary.
National Autism Center Standards Report Phase 2:

- “The National Autism Center has adopted the definition of evidence-based practice offered by David Sackett and his Colleagues: evidence based practice as ‘the integration of best research evidence, professional judgment, and values and preferences of clients.’” p.80

- “The combined results of NSP1 and NSP2 include data from more than 1000 studies. This is the largest review of its kind for individuals with ASD.” p. 80

Evidence-Based Interventions by Quantity of Findings

SMRS Research Findings
Interventions by Quantity

Intervention

Behavioral Interventions
Modeling
Parent Training Package
Peer Training Package
Story-Based Interventions
Social Skills Package
Self-Management
Naturalistic Teaching Strategies
Prosocial Response Treatment
Cognitive Behavioral Intervention
Language Training
Production
Scripting

Quantitative Findings

Quantity of Articles

Phase 1
Phase 2
Total

453
155
298
28
79
51
11
48
43
46
210
21
24
17
13
11
13
12
10
2
6
5
11
NAC Standards Report Conclusions (2009):

- 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.
Further 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
Autism “A fad magnet” (Metz and Mulick, 2005)

• Be wary of quick fix interventions: some examples..
  – Sensory Integration
  – Facilitated communication
  – Vaccines/Mercury cause Autism
  – Rapid prompting
  – Certain biomedical interventions (chelation; diets)
  – And on and on on….
Sessions on Evidence and Implications:

• 5-Alice Shillingsburg: Recent Research on Teaching Verbal Behavior to Children with Autism (Mon PM-Intermediate)

• 35-Abigail Pastorella and Ashley Harned: Individualized Educational Programs (IEPs) and Evidence for Parents (Tues PM- all participants)
Don’t Forget the Conference Archives!

• Numerous sessions archived over several years

http://legacy.wpsu.org/live/archive/
Quality Educational Programs: Key Features

- Focus on addressing core deficits of Autism
- Provide high rates of active student responding
- Build Skills: explicit instruction
- Use of positive reinforcement/skill building
- Honor student interests, personality and skills
- Data driven
- Collaborative! Video Harrisburg case studies
Sessions on Quality Instruction:

- 6-Francesca degli Espinosa: Early Social Responding and Verbal Behavior: An Analysis of Current Application (Mon PM-all participants) *Livestreamed
- 22-David Roth: Discovering the Units of Analysis in the Stimulus Control of Behavior (Tues AM-Intermediate)
- 49-Dita Chapman and Helena Vadurova: International Applications Derived from PaTTAN’s Autism Initiative (Wed AM-Intermediate)
Sessions on Quality Instruction:

- 52-Bill Heward and Janet Twyman: Low Tech Approaches/High Tech Approaches to Instruction (Wed AM-all participants)
- 56a/56b-Audrey Banzhaf and Jenn Sealer: Making it Work: First Year in an Autistic Support Room (Wed PM-all participants)
- 58a/58b-Taylor Hubert, Erica Simmons and Erin Shields: Sign Language Training in the Classroom Setting (Wed PM-all participants)
Sessions on Quality Instruction:

• 69a/69b-Chris Burke: Teaching Advanced Language Skills for High School Students from Discrete Trial to Natural Environment Teaching (Wed PM-all participants)

• 72-Aimee Miller: Guidelines for Moving from Assessment to Programming (Thurs AM-Intermediate)

• 73/85-David Palmer: A Behavioral Interpretation of Mathematics and Logic (Thurs AM-Advanced) *Livestreamed
Sessions on Quality Instruction:

• 76-T.V. Joe Layng: Converging Qualities of Personal Competence: What They Are and How to Teach Them (Thurs AM-Intermediate) *Livestreamed

• 78-Lori Chamberlain: The Role of Fluency in Programming for Children with Language Delays (Thurs AM-Intermediate)

• 79/91-Jared Campbell: Teaching and Understanding Mathematical Word Problems (Thurs AM-all participants)
Sessions on Quality Instruction:

• 88-Mike Miklos, Amiris DiPuglia and Dean DiSalvo: Toward a Technology of Teaching (Thurs PM-all participants)
A Brief Review of Applied Behavior Analysis (ABA)

- ABA is not a thing or a procedure
- It is a system of evaluating how the behavior of individuals systematically changes in relation to the ongoing and past situations in which the person behaves.
So What is ABA?

- The application of science of learning to socially significant human behavior
  - Applied: socially significant
  - Behavior: relation between environmental events and what people do
  - 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!
ABA and Board Certification
(Behavior Analysis Certification Board)

• What is a Board Certified Behavior Analyst (BCBA)?
• What is a Board Certified Assistant Behavior Analyst (BCaBA)?
• What is a Registered Behavior Technician (RBT)?

• What is the role of a BCBA?
• Why are they helpful?
Applied Behavior Analysis (ABA)

- Builds skills to help people be more independent
- Helpful across:
  
  *education, business, health practices* (e.g. smoking cessation, weight loss, reducing obsessions, etc), *animal training* (e.g. pouched rats and land mines), *environmental sustainability* (e.g. towel reuse in hotels and litter reduction), *occupational safety, gun safety, transportation safety*, and more....
ABC Analysis

- A = Antecedent (before behavior)
- B = Behavior (what a person does: observable and measurable)
- C = Consequence (after behavior)
ABC Analysis Video
Behavior Analysis Key Terms

• Antecedent
  – Motivating Operation
    • Unlearned (UMO)
    • Transitive (CMO-T)
    • Reflexive (CMO-R)
  – Discriminative stimulus (Sd)
    • 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)
Why an ABC Analysis is Helpful

- It avoids having to guess about un-observable events (what is going on “inside the person”)
- It is optimistic!
- It allows for checking to see that interventions really work!
Some Educational Applications of ABA

• Mand Training
• Discrete Trial Training
  – Errorless Teaching
  – Error correction
• Direct Instruction
• Social skill building
• Function-based Behavioral Interventions
• Altering a school culture
Sessions on Behavior Analysis:

• 8-A. Charles Catania: The Evolution of a Science: A Brief History of Behavior Analysis, Including Applications to Autism Treatment (Mon PM-Intermediate) *Livestreamed

• 13/27-Timothy Vollmer: A Step-Wise Approach to Behavioral Intervention: Implications for Behavioral Consultation (Tues AM-Intermediate)

• 34-Sarah Bloom: Trial-based Functional Analysis: Current Research and Applications (Tues PM-Advanced)
Sessions on Behavior Analysis:

• 47-Jesus Rosales-Ruiz: The Poisoned Cue (Wed AM-all participants) *Livestreamed

• 71/83-Mark Sundberg: Establishing Generative Verbal Learning for Children with Autism (Thurs AM-Advanced) *Livestreamed

• 87-Tim Hackenberg: Token Reinforcement: Bridging the Gap between Science and Application (Thurs PM-Intermediate) *Livestreamed
Sessions on Ethics and Supervision:

- **12-Timothy Vollmer: Legal and Ethical Considerations for the Written Functional Assessment and Behavior Intervention Plan (Mon PM-all participants)**
  *Livestreamed*

- **19-Lori Chamberlain and Rebekah Houck: Ethics for Behavior Analysts: “The Good Place” (Tues AM-intermediate)**

- **30- Rachel Kittenbrink and Jim Miller: Supervision Savvy (Tues PM-intermediate)**
  *Livestreamed*
Sessions on Ethics and Supervision:

- 32-Missy Olive: Special Education Law and Ethical Issues for Behavior Analysts (Tues PM-intermediate)
- 66-Amy Naccarelli: Establishing Effective Supervisory and Consultative Practices: A Data Driven Approach (Wed AM-all participants)
Social Communication and Autism

• The Basic Verbal Operants

• Speaker Skills
  – Mand
  – Tact
  – Intraverbal
  – Echoic
  – Imitation (with sign language)

• Listener Skills
  – Listener Responding (Receptive)

• And Complex Skills
  – Multiple control
  – Atomic repertoires!!! (Palmer, 2012)
Sessions on the Analysis of Verbal Behavior and Complex Language:


- 74-Mariela Vargas-Irwin: Executive Functioning Redefined (Thurs AM-Intermediate) *Livestreamed
What is a Mand? Common Terms:

- Request
- Asking for something
- A question
- Demanding
- Inquiring
- Commanding
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
- Intraverbal: responding with words to things that have been said (conversation, answering questions, word associations)
- Echoic: repeating what has been said
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.

Introduction to Mand Training video
Video Sharae and Mike
Introduction to Mand Training Video
Example of Mand Training Video
Sessions on Mand Training:

- 20-Mike Miklos: Teaching Advanced Mands (Tues AM-Intermediate) *Livestreamed
- 36-Smita Awasthi: Effective Technologies in Evoking First Instances of Speech in Non-vocal Children with Autism (Wed PM-Intermediate) *Livestreamed
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?
Total Cumulative Skills in 20 weeks: 68 (20 Mands)
Example: Decision Rules

Successive Days

Baseline | Intervention 1 | Intervention 2

Test Score

Aim line
Sessions on Data Analysis:

- 14-Ron Van Houten: Analyzing and Interpreting Trends in Data: Dancing with the Data (Tues AM-Intermediate)
- All instruction focused sessions will also include data systems and data analysis
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
### Motor Imitation Procedural Fidelity Checklist

Date: _______________   Instructor: _______________________Student: _______________________
Observer 1: _________________________Observer 2:_________________________ IOA% __________

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
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<tbody>
<tr>
<td>1.</td>
<td>Is instructional area neat and sanitized?</td>
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<td>2.</td>
<td>Does instructor have all materials needed for instruction organized and ready?</td>
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<td>3.</td>
<td>Does instructor have a variety of valuable reinforcers available?</td>
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<td>4.</td>
<td>When teaching, does instructor present the SP and prompt the correct response?</td>
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<td>5.</td>
<td>Once the student complies with the prompt, does the instructor re-present the SP with no prompt or a faded prompt (transfer trial)?</td>
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<td>6.</td>
<td>Is transfer trial followed by distractor(s)?</td>
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<tr>
<td>7.</td>
<td>Following distract trials, does the instructor re-present the SP with no prompt or a faded prompt as presented in transfer trial (check trial)?</td>
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<td>8.</td>
<td>Does instructor model the action to be performed for the prompt, transfer and check trials?</td>
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<td>9.</td>
<td>Does instructor reinforce at set VR schedule? VR:</td>
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<td>10.</td>
<td>Does instructor use a prompt that results in correct response?</td>
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<td>11.</td>
<td>Does instructor differentially reinforce (better reinforcement) target responses?</td>
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<td>12.</td>
<td>Does instructor end the trial and ensure student is in neutral position (use ready hands if needed)?</td>
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<td>13.</td>
<td>Does instructor re-present the SP and prompt the correct response?</td>
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<tr>
<td>14.</td>
<td>Does instructor prompt student if no response occurred within 2 seconds for a previously mastered item?</td>
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<td>15.</td>
<td>Does instructor model the action to be performed for the prompt, transfer and check trials during error correction?</td>
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**Notes:**

___/15

Percentage of Y’s:
Sessions on Treatment Integrity and Staff Training

- 48- Thomas Zane: Maintaining Employee Performance: Specific Strategies for Training and Maintaining High Levels of Staff Fidelity (Wed AM-Intermediate)
- 55a/55b- Promising Practice: The Role of Treatment Fidelity Checks in Autism Support Classrooms (Wed PM-all participants)
- 57a/57b- Promising Practice: Make it Count: Ensuring Effective Staff Training Procedures (Wed PM-all participants)
Sessions on Treatment Integrity and Staff Training

• 59a/59b- Promising Practice: A Strategic Approach to Internal Coaching, Staff Training and Family Engagement (Wed PM-all participants)
• 86- Miguel Ampuero: Effective and Efficient Strategies to Improve Para-Educator Delivered Interventions in the Autism Support Classroom (Thurs PM-all participants)
Family Engagement

• Meaningful family engagement is associated with:
  – Better School Attendance
  – Higher Test Scores
  – Higher Grades
  – Better Social Skills
  – Better adaptation to School
  – Post Secondary Education more likely

• Parental goals, perspectives and concerns should be considered in educational planning

• Caveat: parent preference is not always consistent with evidence base

• Parent training and communication
Family/Parent Focused Sessions:

- 16-Perry Zirkel: An Update on Legal for Students with Autism Spectrum Disorders (Tues AM-Intermediate)
- 28-Amiris Dipuglia: Is My Child Really Included (Tues PM-all participants)
  *Livestreamed*
- 33-Valerie Postal and Donna Miller: Coaching Families on the Implementation of ABA Strategies in Everyday Routines (Tues PM- all participants)
Family/Parent Focused Sessions:

• 35-Abigail Pastorella and Ashley Harned: Individualized Educational Programs (IEPs) and Evidence for Parents (Tues PM- all participants)
• 37-Nina Wall and Jared Ebert: Updates: Bureau of Autism Services- Office of Developmental Programs (Tues PM-all participants)
• 42-Amiris Dipuglia: Managing Problem Behavior in the Home and Community Settings (Wed AM- all participants)
Family/Parent Focused Sessions:

• 67-Multiple Presenters: How Can I Include My Own Child with Autism in the Community? A Family Forum on Evidenced Based Practices (Wed PM- all participants)

• 84-Frank Cicero: Parents as Teachers: Promoting Independent Living Skills in the Home and Community (Thurs PM- all participants) *Livestreamed
Children’s Institute:

• Child care is available for families attending the conference

• Offers an on-site, structured, and fun environment for Pennsylvania-resident children and youth (six months through age 21) with autism and their siblings

• Services are provided by the Central Intermediate Unit #10, using trained professional and support staff.

• Sponsored by the Pennsylvania Department of Education, Bureau of Special Education
STEM Camp for High School Students with ASD:

- 4-day camp will be an exploration of how virtual reality works and the exciting ways it can be used to improve how we work, play, and live everyday life
- Camp will take place at Penn State's University Park campus during the National Autism Conference
- Camp is designed for college-bound high school students who are on the autism spectrum
Social Skills

• Most social skills involve communication
• Language instruction is social skill training
• Peer to Peer manding often a place to start
• Evidence based methods of addressing complex social skills is important
• Look for interventions that avoid rote learning.
Sessions on Social Skill Training:

• 17/31-Tim Hackenberg: Toward a Functional Analysis of Social Behavior (Tues AM-Intermediate)
• 60-Multiple Presenters: Age Appropriate Programming to Build Play, Leisure and Social Skills (Wed AM-all participants)
• 62a/63b-Promising Practices: Social Skills Instruction (Wed PM- all participants)
• 68-Ami Klin: Early Development of Social Reciprocity (Wed PM-Intermediate)

*Livestreamed
Behavior Management

• FBA
• PBSP
• Function Based
  – Motivation
  – Competing skill
  – Making PB ineffective and inefficient
Behavior Management Video
Sessions on Behavior Management:

• 10-Willow Hozella: Effects of Pace of Instruction on Skill Acquisition and Problem Behavior (Mon AM-all participants)
• 12-Timothy Vollmer: Legal and Ethical Considerations for the Written Functional Assessment and Behavior Intervention Plan (Mon PM-all participants) *Livestreamed
• 42-Amiris Dipuglia: Managing Problem Behavior in the Home and Community Settings (Wed AM-all participants)
Sessions on Behavior Management:

• 63-Willow Hozella: Positive Behavior Support Plans: The Interface Between Instruction and Intervention (Wed PM-all participants) *Livestreamed
Life skills and Activities of Daily Living

• Functional Approach
• These are critical skills: becoming toilet trained, for instance, alters likely trajectory
• Safety skills
Sessions on Life Skills and Activities of Daily Living:

- **15/29-Vincent Carbone: Teaching Verbal Behavior and Functional Skills to Persons with Moderate to Severe Disabilities (including Autism) (Tues AM-all participants)** *Livestreamed*
- **21-Jaime Klinefelter and Cindy Sheehan: Programming Considerations for Life After School (Tues AM-all participants)**
- **51-Missy Olive: Ethical Issues Regarding the Assessment and Treatment of Feeding Difficulties (Picky Eaters) (Wed AM-Intermediate)**
Sessions on Life Skills and Activities of Daily Living:

• 61a/61b-Kara Vollmer and Laura Auman: Effective Programs to Achieve Skill Acquisition with Optimal Outcomes for Older Learners with Significant Developmental Delays (Wed PM-all participants)

• 65-Kara Hume: Preparing Students with ASD for Life In and After High School: Lessons from the Field (Wed AM-all participants)

• 84-Frank Cicero: Parents as Teachers: Promoting Independent Living Skills in the Home and Community (Thurs PM- all participants) *Livestreamed
Transition Programming

• As children enter middle and high school it is critical to begin planning for the transition to life, career and education opportunities beyond public education.
• Programming for these opportunities remains rooted in evidence base.
Sessions Related to Transition and Career and College Readiness:

• 9-Philip Kanfush and Alaina D’Aloiso: Bearcat BEST- Building Excellence through Skills Training (Mon PM- all participants) *Livestreamed

• 77-Tina Lawson: How to Plan to Increase Graduation Rates and Decrease Dropout Rates for Students with Disabilities in Pennsylvania (Thurs AM- all participants)

• 89-Jane Thierfeld Brown and Joseph Riddle: Getting and Keeping the Job (Thurs PM- all participants)
Sessions on Early Intervention:

- 18-Anna Dvortcsak: Project ImPACT (Improving Parents as Communication Teachers)- A Parent Training Curriculum from Birth to Age 6 (Tues AM-Intermediate)
- 51-Missy Olive: Ethical Issues Regarding the Assessment and Treatment of Feeding Difficulties (Picky Eaters) (Wed AM-Intermediate)
- 54a-Promising Practices: It Takes a Village- A Process for Identifying and Talking about Early Signs of ASD (Wed PM-all participants)
Sessions on Early Intervention:

• 54b-Promising Practices: Project ImPACT in Action: Philadelphia Infant Toddler Early Intervention (Wed PM-all participants)

• 75-Rachel Kittenbrink: Early Intervention, Inclusion and ABA: Transforming from Professional to Parent (Thurs AM- all participants)
Sessions on Teaching Speech and Articulation Skills:

Don’t Forget!!

• Special Presentation: Not Just Autism-Generic Extension of Effective Practices Across Special Education Settings Tues 4:30 *Livestreamed

• Art of Expression and Poster Session: Wed 4:30

• Children’s Institute Play: Thurs PM

• Closing Keynote: Why Be a Behavioral Educator? (What does it mean to be a Behavioral Educator?) Thurs 4:30
Remember: PATTAN staff are here to help! If you have any questions or concerns, please ask!

Thank you for attending this session.

Have a productive and enjoyable conference experience!

“If you don’t have the time to do it right, when will you have the time to do it over?”

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