Reviewing Impact and Perceptions of Applied Behavior Analysis in Positive Behavior Support

Ashley Greenwald, M.A., BCBA
Jodie Soracco, M.Ed., BCBA
Christian Sabey, Ph.D., BCBA
Rose Iovannone, Ph.D., BCBA-D
Symposium Overview

1. Foundations of ABA and PBS
2. ABA and PBS in Practice
3. Debunking Myths of ABA
4. Discussion
FOUNDATIONS OF ABA AND PBS

Ashley Greenwald, M.A., BCBA
Director, Nevada PBIS Technical Assistance Center
University of Nevada, Reno
Applied Behavior Analysis

• History
  – 1960’s:
    • Skinner’s operant chamber work is translated into applied research
    • Bear, Wolf and Risley (1968) define ABA
  – ABA treatment for autism was popularized and resulted in rapid growth of the field

• Common Applications
  – Behavior acquisition/reduction
  – Discrete trial training
  – Precision teaching
  – Organizational behavior management
Positive Behavior Support

• History¹,²
  – 1980’s:
    • A response to the use of aversive punishment
    • Disability rights movement
  – Initially the entire focus was on individualized interventions, and definitions tended to include the process of functional behavioral assessment
  – School-wide PBS resulted in rapid growth of field
  – Founders had strong background in ABA³

• Common Applications
  – PBS: Individual supports
  – PBIS: Systems level interventions including schools & juvenile justice facilities

1. Dunlap, Sailor, Horner, & Sugai, 2009
2. Lucyshyn, Dunlap, & Freeman, 2015
3. Horner et al., 1990
### Definitions

#### PBS

<table>
<thead>
<tr>
<th>Core Principles of PBS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) an integration of empirically-valid technology with values related to human dignity</td>
</tr>
<tr>
<td>(2) data-based accountability</td>
</tr>
<tr>
<td>(3) an emphasis on skill building and quality of life, with a secondary priority on reducing problem behaviors</td>
</tr>
<tr>
<td>(4) an appreciation of contributions from multiple disciplines</td>
</tr>
</tbody>
</table>

Dunlap, Jackson and Greenwald (in press)

#### ABA

<table>
<thead>
<tr>
<th>Core Principles of ABA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) guided by the attitudes and methods of scientific inquiry</td>
</tr>
<tr>
<td>(2) procedures are described and implemented in a systematic, technological manner</td>
</tr>
<tr>
<td>(3) not all means of changing behavior qualify as ABA; only those derived from the basic principles of behavior</td>
</tr>
<tr>
<td>(4) focus on socially significant behavior</td>
</tr>
<tr>
<td>(5) meaningful improvement in important behavior</td>
</tr>
<tr>
<td>(6) analyze the factors responsible for improvement</td>
</tr>
</tbody>
</table>

Cooper, Heron and Heward (2007)
ABA vs. PBS Chatter

• "Positive Behavior Support is a new science, evolved from, yet different than, applied behavior analysis.” ¹

• "Some behavior analysts have argued that PBS is harmful to ABA. One premise of this argument is that PBS is ‘unscientific’ because PBS interventions have been evaluated with non-rigorous designs such as anecdotal observations.” ²

• PBS is “fluffy”

¹) Carr, et al., 2002
²) Johnston et al., 2006
Historical Arguments

• Definitions:
  – lack of recognition of ABA as a foundational science\(^1\)
  – PBS is a new science, separate from ABA\(^2\)
  – overreliance on principles of ABA within a multi-disciplinary PBS approach as a misrepresentation of validated ABA practices\(^3\)

Carr et al., 2002
Dunlap, 2006
Loukus, 2015
Historical Arguments

• Implementation practices\(^1\):
  – use of values in PBS trumps validated research tactics
  – antecedent manipulation vs manipulation by consequence

• Training and competency\(^1\)

• Lack of rigorous evaluation methodologies\(^1\)

Johnston, et al., 2006
Current Debates

• ABA is seen in PBIS most notably in the areas of emphasis on operational definitions, use of environmental manipulations to change behavior, and a major emphasis on data collection and data based decision making\(^1\)

• “Bearwolfrisleying”\(^2\)

• Three current areas of controversy\(^3\):
  (1) Unit of measurement as a system instead of an individual
  (2) aversive control
  (3) “blanket reward treatments” vs. function based treatment

---

1) Horner & Sugai, 2015
2) Critchfeld, 2015
3) Jarmolowicz and Tetreault, 2015
## Strength in Collaboration

<table>
<thead>
<tr>
<th>PBS Contributions</th>
<th>ABA Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Large scale systems intervention</td>
<td>• Practices and principles</td>
</tr>
<tr>
<td>• Recognition and acceptance</td>
<td>• Training, degree programs, certification</td>
</tr>
<tr>
<td>• Interdisciplinary practices</td>
<td>• Code of ethics</td>
</tr>
<tr>
<td>• Federal funding and legislative mandates</td>
<td></td>
</tr>
</tbody>
</table>
ABA AND PBS IN PRACTICE

Jodie Soracco, M.Ed., BCBA
State Coordinator, Nevada PBIS Technical Assistance Center
University of Nevada, Reno
BA Impact in Practice

- Operational definitions & intervention elements
- Environmental manipulations to modify staff and student behavior
- Measurement
  - Fidelity of core features & student outcome/behavior at all three tiers
- Organizational behavioral theory further applies behavior patterns across groups of individuals
  - i.e. Leadership teams
- BA is essential the foundational knowledge as well as implementation of Tier II and Tier III supports
- Large-scale implementation of BA at the program and organizational level

Horner & Sugai, 2015; Putnam & Knoster, 2016
Tier 1 Practices

- Focus on the “smallest functional units” required for generating outcomes
  - Contextually and culturally relevant
- Matrix
  - Establishes stimulus control and discrimination by teaching social skills in the natural context and providing behavior examples

Biology is important

Behavior is learned

Behavior & environment are functionally related

Behavior is lawful

Environment modified to influence & teach behavior

BA serves as the foundation for the PBIS theory of action

Behavior Analytic Approach
Six Key Features to Achieve Large-scale Application of Evidence-based Practices

1. Focus on comprehensive outcomes defined by the values of the social system

2. Expand the unit of analysis

3. Measure process as well as outcome

4. Make ABA principles more accessible

5. Focus on sustained effects

6. Define procedures for scaling-up effective practices.

Horner & Sugai
School-wide PBIS

2. **Expand the unit of analysis**

   - **Whole school**
     
     • Classroom
       
       - Groups of “at-risk” students
         
         » Individual students needing intensive support
School-wide PBS

4. Make Evidence-based Practices Accessible
   - Use the language of the implementation context
     - Combine technologies needed to achieve valued outcomes.
       • ABA + Person-centered planning + Organizational Systems + Bio-Medical
     - Collaborate with other disciplines
       • Mental Health, Juvenile Justice, School Psychology, Sociology
     - Study implementation as well as application
       • Function-based intervention
       • Contextual fit

McIntosh
Benazzi
Bergstrom
Tier 2/3 Practices

Tier 2:
- Designed for students that would benefit from:
  - More salient and frequent antecedent prompts
  - Additional structure
  - Increased rate of reinforcement
  - Enhanced support in teaching appropriate skills

Horner & Sugai, 2015
Tier 3: Function-based Support

**Problem Behavior**

- *Response class*
- *Routine analysis*
- *Hypothesis statement*

**Functional Assessment**

- *Alternative behaviors*
- *Competing behavior analysis*
- *Contextual fit*
- *Strengths, preferences, & lifestyle outcomes*
- *Evidence-based interventions*

**Intervention & Support Plan**

- *Implementation support*
- *Data plan*

**Fidelity of Implementation**

- *Continuous improvement*
- *Sustainability plan*

**Impact on Behavior & Lifestyle**

- *Response class*
- *Routine analysis*
- *Hypothesis statement*

**Team-based Behavior competence**

Horner & Sugai
Function-based Logic for Tiers 2/3

1. Teach & reinforce context-appropriate social behaviors or skills
2. Remove antecedent triggers of problem behavior
3. Add antecedent triggers of context appropriate social skills
4. Remove consequences maintaining (function) problem behaviors
5. Add consequences maintaining context appropriate social behaviors

George Sugai, January 27, 2009
Extending Behavioral Theory to Large Social Systems

- Allows efficient & effective decisions
- Core practice selection
- Stages of implementation

Policies, teaming structures, decision-making, funding

Core Features for Social/Cultural Context

Systems Implemented and Sustained with High Fidelity

Implementation Process

Data Systems Developed

Horner & Sugai, 2015
PBIS in Nevada

• Founded in 1999, the Nevada Positive Behavioral Interventions and Supports (PBIS) Technical Assistance Center is 100% grant funded through state and federal funds, with an operating budget of over 1 million dollars per year.

• Provide training and technical assistance in a variety of settings, across many state agencies, and with an array of clientele.
  – PBS-NV Family Services, PBS-NV Aging Services, and the School Climate Transformation Project.

• Currently employs a total of 12 Board Certified Behavior Analysts (BCBAs) across the state.

• Every activity/project of the center is focused on principles and practices of behavior analysis.
ABA Enhancing PBS

- Bullying Analysis
  - Takes a behavioral perspective utilizing a function-based approach: context, learning history, context manipulation

Alignment with Abernathy's TPS

- Observable, measurable strategic objectives
- Expectation Matrix

Self-Management Tools

- Feedback Rubrics
  - Personal scorecards with specific measures and goals

- Feedback Scorecard
  - Managers assist in pinpointing ongoing opportunities and designing improvement plans

- Performance Charts
- Tactical Improvement Plan

Employees share in the organization's success

Performance-Based Incentives
DEBUNKING MYTHS OF ABA

Christian Sabey, Ph.D., BCBA-D
Assistant Professor
Brigham Young University
Applied Behavior Analysis
SWPBS
Context

• “The rest of the field of education has moved beyond ABA, I’m not sure why special education has not.”
• “Oh, he’s a BCBA? I don’t like BCBA’s”
• “How can you be a Skinnerian?”
• “I don’t do behavior analysis.”
1. Kids Are Not Rats or Pigeons

• “The primary focus of JABA continues to be Research Articles of social importance."  
  – 1968 -2015 
  – 188 issues 
  – 940 articles

2. ABA is Sitting At a Table Doing Drills 1 on 1
Discrete Trial Training (DTT)

• Provide several opportunities for the student to respond (instructional trials).
• Provide frequent feedback.
• Provide a highly reinforcing context.
• Provide a highly structured environment.
Other Techniques

- Video modeling
- Scripting and script fading
- Naturalistic and incidental teaching
- Activity schedules
- Behavioral skills training
- Token economy
- Self-management
- Behavior contracting
3. ABA is Mechanistic and Turns Kids into Robots

- Broader interests
- Restricted behaviors
- Restricted communication
- Stereotopy
- Less stereotopy
4. ABA Relies on Punishment Rather Than Prevention

• Punishment was more widely used in the early days of ABA (1950s-1970s).

• Positive reinforcement is the tool of choice at present
  – More effective
  – More socially valid

• Many prevention based strategies are used
  – Teach desired behaviors
  – Modify motivating operations
  – Prompt appropriate behavior
5. ABA is Only For Kids With Autism

• ABA is the most research validated approach to treating autism
• Decrease traffic accidents
• Increase employee productivity
• Environmental sustainability
• Addictions
• Gambling
• Exercise/weight loss
6. ABA is About Bribing and Manipulating Kids

• Bribing
  – Persuade someone to act in one’s favor, typically illegally or dishonestly, by gift of money or other inducement
  – ABA is done for the benefit of the client/student
  – Behavior is reinforced either intentionally or unintentionally. Making reinforcement intentional does not amount to bribery

• Manipulating
  – The environment will largely influence how people behave.
  – We can make it intentional or accept it as it is.
Final Thought

• There is a grain of truth in every myth.
  – Behavior analysts need to work on
    • being more inclusive
    • better understand other perspectives
    • translating behavior analysis into laymen's terms
    • developing relationships that can support the science
DISCUSSION

Rose Iovannone, Ph.D., BCBA-D
Director, Interdisciplinary Center for Evaluation and Intervention
University of South Florida