Applied Behavior Analysis and Positive Behavior Support: An Inextricable Relationship

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Relationship between ABA and PBS?

INEXTRICABLE….
- Impossible to separate; closely joined or related
- Incapable of being disentangled or untied

Today's objectives
- Definitions of ABA and PBS
- PBS Standards of Practice
  - Unique aspects of PBS
- Treatment Acceptability
- Challenges to creating positive environments
- Self-determination

Coercion and Its Fallout
(Murray Sidman, Coercion and Its Fallout, 1989)

Coercion is the “use of punishment and the threat of punishment to get others to act as we would like” (p.1)

Sidman....
- With the addition of every new punishing element to our environment, however, our lives become potentially less satisfying, more desperate. If we encounter punishment frequently, we learn that our safest course is to stand pat and do as little as possible. We congratulate ourselves for every day that passes without catastrophe. The only things we are eager to learn are new ways to evade or to destroy objects and people that stand in our way. The process is potentially explosive. Whenever we are punished, more and more elements of our environment become negative reinforcers and punishers. We come more and more under coercive control, and we rely more and more on counter coercion to keep ourselves afloat. (p. 78)
DEFINITIONS

Definition of ABA

“Applied behavior analysis is the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change”

(Cooper, Heron, & Heward, 2007, p. 20)

Defining characteristics of ABA

• Applied
• Behavioral
• Analytic
• Replicable
• Conceptually systematic
• Effective
• Generality

Background of PBS

• Emerged in mid-1980s as an alternative to the prevailing behavior management practices that emphasized the manipulation of consequences to produce behavior change.
• For the most severe and persistent problem behaviors, the over-reliance on contingency management led to the use of highly aversive and stigmatizing punishment procedures, including contingent electric shock.
• Advocates of those with severe disabilities who were unable to communicate, lived and went to school in segregated settings, thus a vulnerable population.
• Advocacy began…….
• Research got more focused……..

(From Kincaid, Dunlap, Kerr, Lane, Bambara, Brown, Fox, & Knoster, 2016)

Definition of PBS

• An approach for enhancing quality of life and reducing problem behaviors that detract from adaptive and preferred lifestyles
• PBS is an applied science that uses educational methods to expand an individual’s behavior repertoire and systems change methods to redesign an individual’s living environment to first enhance the individual’s quality of life, and second, to minimize his or her problem behavior

(Carr et al, 2002, p. 4)

Definition of PBS (2016)

PBS is an approach to behavior support that includes an ongoing process of research-based assessment, intervention, and data-based decision-making focused on building social and other functional competencies, creating supportive contexts, and preventing the occurrence of problem behaviors.

PBS relies on strategies that are respectful of a person’s dignity and overall well-being and that are drawn primarily from behavioral, educational, and social sciences, although other evidence-based procedures may be incorporated. PBS may be applied within a multi-tiered framework at the level of the individual and at the level of larger systems (e.g., families, classrooms, schools, social service programs, and facilities).

(Kincaid, et al, 2016, p. 71)
III. Foundations of PBS
A. Historical perspective
B. Basic assumptions **
C. Key elements **
D. Ongoing professional development
E. Legal and regulatory requirements

II. Collaboration and Team Building
A. Collaboration
B. Team building

III. Basic Principles of Behavior
A. Operant learning foundations
B. Antecedent manipulations
C. Consequence manipulations to decrease behavior
D. Consequence manipulations to increase behavior
E. Generalization and maintenance

IV. Data-Based Decision Making
A. Defining behavior
B. Measuring behavior
C. Graphing data

V. Comprehensive Person Centered and Functional Behavioral Assessments
A. Multi-element assessments
B. Comprehensive assessments
C. Person centered assessments

VI. Development and Implementation of Comprehensive, Multi-element Behavior Support Plans
A. Elements of a PBS plan
B. Quality of life interventions
C. Antecedent interventions
D. Instructional interventions
E. Consequence interventions
F. Implementation of PBS plans
G. Ongoing evaluation

From: APBS Standards of Practice Unique Components

I.B.2. Positive strategies are effective in addressing the most challenging behavior

I.B.3. When positive behavior intervention strategies fail, additional functional assessment strategies are required to develop more effective PBS strategies

I.C.9. Techniques that do not cause pain or humiliation or deprive the individual of basic needs
A challenge

Montrose Wolf, in his landmark article on social validity (1978), states:

"...if those things described by subjective labels [referring to experiences such as happiness, creativity, trust, beauty, satisfaction] were the things that were most important to people, then those were the things, even though they might be complex that we should become more concerned with. After all, as an applied science of human behavior, we supposedly were dedicated to helping people become better able to achieve their reinforcers. (p. 206)"

Treatment Acceptability

• An individual’s perception on the “acceptability” of an intervention.

• “...judgements of lay persons, clients, and others of whether the procedures proposed for treatment are appropriate, fair and reasonable for the problem or client” (Kazdin, French & Sherick, 1981, p. 900)

But how we define appropriate, fair and reasonable has been heatedly debated

Treatment acceptability research has demonstrated.....

• Strategies focusing on increasing appropriate behaviors are more acceptable than strategies to reduce behaviors
• In general aversive interventions are less acceptable than nonaversive interventions
• But... the more severe/frequent the problem behavior the more likely an aversive procedure would be considered acceptable
• But... the more severe a disorder is considered, the more aversive interventions would be considered acceptable
• The more complex an intervention was, the less acceptable
• More intrusive procedures were acceptable if less intrusive procedures were first attempted

(see Brown & Bambara, 2014)
Treatment acceptability is not static

- Personally speaking,...........

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Personal Paradigm Shifts....

From Thomas Kuhn (1962), The Structure of Scientific Revolutions (retrieved Wikipedia, October 3, 2007)

- A paradigm is what members of a scientific community, and they alone, share
- Paradigm shift describes a change in basic assumptions within the ruling theory of science.
- The paradigm is not simply the current theory, but the entire worldview in which it exists, and all of the implications which come with it.
- When enough significant anomalies have accrued against a current paradigm, the scientific discipline is thrown into a state of crisis. During this crisis, new ideas, perhaps ones previously discarded, are tried. Eventually a new paradigm is formed, which gains its own new followers, and an intellectual ‘battle’ takes place between the followers of the new paradigm and the hold-outs of the old paradigm.

We use the term “personal paradigm shifts” to refer to those struggles within a person, not within a field of science.

We suggest that people have their own paradigm shifts— which may or may not align with those of the scientific community in which they define themselves

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1990’s saw a decrease in research on shock
-1990’s began an increase in PBS research— with a focus on multi-component behavioral interventions that were function-based, addressing contextual and communication variables.

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Trends....

- Decrease in peer-reviewed research conducted regarding contingent electric shock
- Decrease in treatment acceptability leading to decrease in clinical practice of using contingent electric shock
- Continued increase in the availability of evidence based effective, and positive, treatments
Changes in Treatment Acceptability Across Time

Participants: PBS Experts
➢ “Experts in PBS” (total N = 134)
  ✓ Leadership—public policy & advocacy
  ✓ Scholarship—publication record, editorial board work
  ➢ RRTC-PBS, n = 27
  ➢ JPBI, n = 59
  ➢ TASH, n = 21
  ➢ RPSD, n = 27
Response rate 68 %, N = 77
  ✓ Age M = 50.4, SD = 7.5
  ✓ Years in field M = 26.7, SD = 5.9
(Michaels, Brown, & Mirabella, 2005)

Participants: ABA Experts
➢ “Experts in ABA” (total N = 169)
  ✓ Scholarship—publication record & editorial board work
  ✓ Presentations—national conferences
  ➢ JABA, n = 84
  ➢ ABA, n = 85
Response rate 34 %, N = 57
  ✓ Age M = 41.2, SD = 10.1
  ✓ Years in field M = 17.1, SD = 9.2

Sensory and Physical Punishments Previously Used

PBS Experts
🔹 Vapors
🔹 Screaming
🔹 Mist to face
🔹 Visual screening
🔹 Foul tasting substances
🔹 Alarm on hand
🔹 Restraint
🔹 Spanking, Slaps, Pinching
🔹 Forced to stand in the cold
🔹 Contingent electric shock

ABA Experts
🔹 Foul smells
🔹 Water mist
🔹 Loud noise
🔹 Smack to hand
🔹 Physical and manual restraint as punishment
🔹 Hot sauce
🔹 Foul tasting substances
🔹 Spanking
🔹 Contingent electric shock

Comparison ABA & PBS Experts

Decades During Which Procedure Was Used by PBS Experts
Decades During Which Procedure Was Used by ABA Experts

Challenges to creating positive environments

Sample challenges to creating and sustaining positive environments
• Right to Effective Treatment
• Least restrictive alternative and Default Technology
• Under the radar strategies
• Low support for self-determination

Right to Effective Treatment
ABAI
Consistent with the philosophy of least restrictive yet effective treatment, exposure of an individual to restrictive procedures is unacceptable unless it can be shown that such procedures are necessary to produce safe and clinically significant behavior change.

It is equally unacceptable to expose an individual to a nonrestrictive intervention (or a series of such interventions) if assessment results or available research indicate that other procedures would be more effective.

Indeed, a slow-acting but nonrestrictive procedure could be considered highly restrictive if prolonged treatment increases risk, significantly inhibits or prevents participation in needed training programs, delays entry into a more optimal social or living environment, or leads to adaptation and the eventual use of a more restrictive procedure.

Thus, in some cases, a client’s right to effective treatment may dictate the immediate use of quicker acting, but temporarily more restrictive, procedures.

Least Restrictive Alternative and Default Technology
• Less intrusive procedures should be tried and found to be ineffective before more intrusive strategies are implemented
• Interventions can be viewed as falling along a continuum of restrictiveness from least to most.
• Selecting any punishment-based intervention essentially rules out as ineffective all positive approaches based on their demonstrated inability to improve the behavior.

(Comer, Heron, & Heward, 2007)

• Punishment based interventions involving the application of aversive stimulation should be treated as default technologies.
• A default technology is one that a practitioner turns to when all other methods have failed (Iwata, 1988)
Thoughts....

• Can anyone ever try all positive strategies?
• Having “permission” to increase the level of aversive consequence, even under only certain conditions, is condoning its use and impeding the need to become more innovative and thoughtful about positive interventions” (Brown & Anderson, 2015, p. 32)
• If an intervention is available for use, it will be used... especially when a behavior is particularly challenging
• Are the individuals who use the positive approaches as skilled as they should be in the delivery of such approaches?

Under the Radar Strategies

THERE IS A DECREASING TREND IN THE USE OF AVERSIVE INTERVENTIONS!

POLITICAL PRESSURE AND MORE RIGOROUS REGULATIONS MAY DECREASE THESE OBVIOUS FORMS OF PUNISHMENT.... BUT WHAT ELSE MAY BE GOING ON?

UH-OH.... SYMPTOM SUBSTITUTION?

Are all punishments so obvious????

Undeniably Aversive....

- Restraint (non-emergency)
- Seclusion (time-out)
- Sensory punishment (loud noises, visual occlusion)
- Water squirt (plant spray bottle)
- Vapor or ammonia spray
- Pinch, spank, or muscle squeeze
- Mechanical restraint
- Overcorrection
- Contingent electric shock
- ...

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EUPHYMISMS

- NON-REMOVAL OF SPOON
- PHYSICAL GUIDANCE
- HAND OVER HAND
- ERROR FREE
- MOVEMENT LIMITATION
- FORCED RELAXATION– TIME-OUT FOR CALMING
- SENSORY BLANKET WRAP

IDIOSYNCRATIC PUNISHMENT

The contingent use of a preference, ritual, routine, or attachment to objects to decrease the problem behavior of an individual....

RITUALS

- Idiosyncratic patterns of behavior
- Restricted and repetitive patterns of behavior...
- “nonfunctional” routines
- “...preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal in intensity and focus, apparently inflexible adherence to specific, nonfunctional routines or rituals, stereotyped and repetitive motor mannerisms, and persistent preoccupation with parts of objects.” (APA, 1994)

Purpose of Rituals

- Rituals are a means to regulate sensory stimulation
- Rituals are an expression of anxiety
- Rituals are a manifestation of impaired cognitive functioning
- Rituals are an expression of poor inhibition, a neurological impairment

MOST OF ALL....

RITUALS ARE MOTIVATING!

perhaps the most powerful and strongest motivator!
Aaah…. the better to control you with!

**IDIOSYNCRATIC PUNISHMENT**

The contingent use of a preference, ritual, routine, or attachment to objects to decrease the problem behavior of an individual.

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**Using the ritual to decrease an “inappropriate behavior”**

*AKA- Positive Punishment*

**Zoey**

- Ritual: reading about diseases and syndromes on the computer, printing them out, and collecting them in a book
- Target behavior to decrease: noncompliance
- Consequence: Teacher rips up the papers, or Zoey loses access to the computer when she is noncompliant

*What does that feel like?*
*How might she respond?*

---

**To decrease a behavior...**

**Mary**

- Preference: wear barrettes
- Target behavior to decrease: being off-task
- Consequence: remove barrettes from hair for designated number of minutes

*What might that feel like?*
*How might she respond?*

---

**to decrease a behavior...**

**Kaleel**

- Preference: wear shoes at all times
- Target behavior to decrease: inappropriate sounds during “trials”
- Consequence: removal of his shoes for a given amount of time

*What might that feel like?*
*How might he respond?*

---

**to decrease a behavior....**

**Peter**

- Ritual: things must be aligned
- Target behavior to decrease: yelling
- Consequence: garbage can is moved to be misaligned with the floor tiles
II. Using the ritual or preference to increase an “appropriate” behavior

Peter
- Ritual: Couch cushions should be aligned
- Target behavior to increase: finishing chores
- Consequence: Allowed to fix the intentionally messed up couch cushions following task completion

III. Blocking Access to the Ritual or Preference (and why is that???)

Peter must put back the table to its crooked position
Donald must move back the cabinet handles to a random position
Jamie must walk through the doorway the correct way

Impact of blocking access to a ritual or preference?

*On person:*
- Increase in intensity of the behavior
- Increase in frequency of the behavior
- Increase in self-injury or aggression

Staff rationale???

- “Testing” the individual for “self-control”
- Control issues
- Justification based on the reaction of increased problem behavior

Questions for reflection

If the motivation to engage in a ritual or preference is so powerful, then the manipulation of the ritual or preference is potentially the most powerful aversive strategy we can use with the person.

Might it be a more powerful aversive than sensory or physical punishment, or contingent electric shock?

Reflections, con’t....

- This type of coercion depends on the punisher having a close relationship with the individual—what is psychological impact?
- Are these types of interventions promoted/prohibited in your school or agency?
- How do we get these types of aversives “on the radar”
Self-Determination

DEFINITIONS OF SELF-DETERMINATION
• Exerting control over one’s life.
• The attitudes, abilities, and skills that allow a person to define personal goals and to take initiative in reaching these goals (Ward, 1988)
• Self-determined individuals know what they want and how to get it, and advocate for their own interests (Martin, Marshall, & Maxson, 1993)

SUPPORTED OR HINDERED??
• ATTEMPTS AT SELF-DETERMINATION ARE MEANINGFUL ONLY IF THE ENVIRONMENT RESPONDS
• SELF-DETERMINATION INITIATIONS OF INDIVIDUALS WITH SEVERE DISABILITIES ARE EASILY OVERLOOKED AND MAY BE KNOWINGLY OR INADVERTENTLY OBSTRUCTED

Hindered...

- Knowingly
  - “No, I’m sorry, you may not take a break yet.”
  - “You look like you need a break, but it’s not time yet!”
  - Physical put-through as a correction for “escape”

- Inadvertently
  - “I didn’t understand, did you want the soup?”
  - Child initiations that are missed
  - Physical put-through that masks intention

Tom Petty and the Heartbreakers
“I Won’t Back Down”
Well, I won’t back down
No, I won’t back down
You can stand me up at the gates of hell
But I won’t back down
I’m gonna stand my ground...
Won’t be turned around.

And I’ll keep this world from dragging me down
But I’ll stand my ground— and I won’t back down
Hey baby– there’s no easy way out
And I’ll stand my ground, and I won’t back down....
Self-Determination and impact on behavioral equation

- A strong link must be made between PBS and self-determination strategies in order to enhance the capacity of individuals with problem behavior to be causal agents in developing lives that are enriched with preferred activities and valued relationships (Turnbull & Turnbull, 2016).
- Problem behaviors as an attempt by an individual to express a need, wish or feeling, albeit in an unacceptable manner
- By increasing personal capacity and competency via self-determination instruction (e.g., teach student to monitor, evaluate or reinforce their own behavior), the individual is provided with a means to have more control of his or her behavior.

Behavioral Equation

Traditional... Inspired...

A - B - C
S - A - B - C

Table 1. Examples of infusion of Self-Determination into the Behavioral Equation
(Agran & Brown, 2015)

<table>
<thead>
<tr>
<th>Example of FBA Outcome</th>
<th>Low support for SD</th>
<th>High support for SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem behavior is escape maintained from non-preferred tasks and activities</td>
<td>Remove task from individual's activity schedule.</td>
<td>Restrain or position student to escape escape situation.</td>
</tr>
<tr>
<td>Behavior is attention seeking</td>
<td>- Extinction (withholding reinforcement for the previously reinforced behavior).</td>
<td>- Teach student to appropriately elicit peer or adult attention.</td>
</tr>
<tr>
<td></td>
<td>- Provide increased schedule of contingent attention.</td>
<td>- Provide increased schedule of non-contingent attention.</td>
</tr>
</tbody>
</table>

Table 2. Examples of Influence of Intervention on Self-Determination
(Agran & Brown, 2015)

- Does the individual live in a preferred environment?
- Does the individual have control over daily routines?
- Can any elements of the environment that the individual finds aversive be changed so the individual has more choice over how he or she wishes to spend his or her time?
- Is there sufficient access to non-contingent reinforcement?

A - B - C
S - A - B - C
Well??????

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*Journal of Positive Behavior Interventions (JPBI)*

*Journal of Research and Practice for Persons with Severe Disabilities (RPSD)*


The Association of Severe Handicaps, [http://tash.org/](http://tash.org/)

