

## Tutorial: Positive Behavior Supports

(See also Tutorials on [Behavior Management: Contingency Management](#); [Behavior Management: Prevention Strategies](#); [Noncompliance](#); [Discipline](#); [Motivation](#))

### WHAT ARE POSITIVE BEHAVIOR SUPPORTS?

“Positive Behavior Interventions and Supports” (PBIS) refers to an environmental, antecedent, support-oriented approach to helping individuals with problem behavior. The approach has developed within the tradition of Applied Behavior Analysis (ABA) and shares with that tradition the following features.

- systematic observation of behavior
- an understanding of behavior as a result of its antecedents and consequences
- objective analysis of behavior, using both (1) correlational observation of the behavior's antecedents (what occurs before the behavior) and consequences (what occurs after) and (2) systematic experimentation based on hypothesized causes of the behavior
- systematic teaching procedures, including modeling, prompting/cuing, shaping, chaining, and the like

PBIS differs from traditional ABA in the following respects:

- The focus of intervention is not just on problem behaviors that need to be eliminated, but rather on broader life style and environmental changes that would make the problem behavior irrelevant.
- The focus is largely (but not entirely) on changing the events that precede the problem behavior (antecedents) rather than largely on reacting to the problem behavior with consequences. If the antecedents are effectively modified, then the problem behavior may become irrelevant, that is, non-functional and unnecessary for the person.
- The focus is on environmental changes, including changes in the communication style and support behaviors of relevant communication partners in the environment.
- The focus is on teaching skills, including positive communication skills that may replace the problem behavior. (This is also a focus in many applications of ABA.)
- The focus is on real-world contexts, for both assessment and intervention. A foundational principle of PBIS is that behaviors and the interventions that are designed to address behavioral difficulties are contextually bound. It is unlikely that there will be long term, sustainable behavior change (i.e., generalization and maintenance) if the interventions are not implemented in the contexts in which the individual lives and develops.
- The focus is on self-regulation, self-determination, and person-centered planning in order to develop individualized behavior supports. That is, the person is as involved as possible in developing the plan. Furthermore, the plan targets *self-regulation of behavior*, not just behavior change resulting from environmental changes.

In summary, the focus is on preventing problem behavior rather than reacting to it, on teaching skills aimed at replacing the problem behavior, and on self-regulation. Specific procedures associated with PBIS are listed below.

**PBIS and Positive Reinforcement:** Because they share the word “positive”, PBIS as a behavioral framework is easily confused with positive reinforcement. To be sure, reinforcing students for accomplishments and positive behavior is an important part of any behavioral framework. However, PBIS – with its primary emphasis on prevention and control of antecedents – is very different in meaning from positive reinforcement.

## WHY ARE POSITIVE BEHAVIOR SUPPORTS IMPORTANT FOR MANY STUDENTS AFTER TBI?

### A. Difficulty Learning From Consequences

Many students with brain injury experience behavioral difficulties in the rehabilitation hospital and also upon return to home and school. The tradition of behavior intervention in both hospitals and schools focuses on contingency management and consequence-focused learning. [See Behavior Management: Contingency Management] Students with brain injury often do not respond to contingency management and consequence-focused behavior management. This difficulty is a result of damage to the frontal lobes, vulnerable in TBI. Frontal lobe damage results in a variety of behaviors that make learning from consequences difficult for these students:

1. **Impulsiveness:** Damage to front parts of the brain, common in TBI, results in impulse control problems. For example, a student might be 10 or 14 or 18 years old, and have relatively good recovery in most areas of functioning, but yet have significant impulse control issues during which their behaviors are more typical of a 2 or 3 year old. As with toddlers, impulsive behavior easily trumps whatever learning from past consequences may have occurred.
2. **Failure to Connect Memories of Consequences with Feeling States:** Contingency management assumes that the student is able to retain memories for the factual aspects of prior events (i.e., I did X and Y resulted) as well as connections between the feelings associated with those events and the memories of them (i.e., I did X and Y resulted and I did/didn't like that). These connections are made in the vulnerable front parts of the brain, making any changes in behaviors unlikely or unsustainable. As a result, consequences may have the effect of immediately suppressing behavioral difficulties but will have no long-term effects.
3. **Initiation Impairment:** Some students with TBI have damage in the part of the brain responsible for initiating behaviors (also located in the frontal lobes). These students may know that they should engage in a certain behavior, but not do it because of initiation problems.
4. **Social Perception Impairment:** Some students with TBI have difficulty accurately "reading" their social situation and the behavior of others. This difficulty is also associated with damage to the front parts of the brain, more right hemisphere than left. With this impairment, a student may know what to do in a specific social situation, but fail to do it because of misreading the social situation. For example, a male student may misidentify a neutral look on a girl's face as an invitation, and then use sexually inappropriate language as a result of this misreading.

### B. Difficulty Transferring Skills from Training Context to Application Context

PBIS is a context-sensitive approach to intervention. Because many of the difficulties that individuals confront following brain injury are governed by the contexts in which they occur, any successful interventions and supports must be developed within these contexts. Many young people with brain injuries have been placed in specialized programs to address behavioral challenges outside of their everyday contexts. The results of these interventions are frequently positive in the short term (i.e., while the individual remains in a given setting). Unfortunately, the specialized settings rarely parallel the contexts in which the individual will live and therefore gains made in those settings are often lost within a short time after return to the typical settings.

### C. Positive, Capacity-Driven Rather Than Disability-Focused Intervention

PBIS focuses on the development of capacity and ability, not on the disabilities that result from brain injury. It is an optimistic approach that recognizes that individuals may struggle after brain injury but that these struggles can be addressed in a positive manner. This optimistic, capacity-oriented approach to behavioral issues is important for students who may be struggling with all of the difficult and negative aspects of life after a brain injury.

## WHAT ARE THE MAIN THEMES IN INSTRUCTION AND SUPPORT ASSOCIATED WITH POSITIVE BEHAVIOR SUPPORTS?

The following intervention and support themes are critical to the PBIS framework:

**1. Functional Behavior Assessment:** As with all applied behavior analysis, assessment is aimed at identifying the reasons for or functions served by the student's problem behaviors. The search for functions of behavior takes into account the following:

a. the background "setting events" that influence behavior (e.g., a conflict at home earlier in the day; a general mood of sadness as a result of social isolation)

b. the immediate antecedents that may influence the behavior (e.g., the teacher's instruction; another student's teasing)

c. the behavior (e.g., hitting, yelling – described across observers)

d. the consequences or events that follow the behavior and that may increase or decrease the likelihood of the behavior occurring again in the future (e.g., acting out resulted in removal from an undesirable activity)

**2. Prevention Plans:** Behavior intervention and support plans highlight prevention of behavioral difficulties and early intervention when difficulties are emerging, rather than ongoing reaction to the student's negative behavior. For example, if the student uses negative behavior to escape difficult academic work, staff should find ways to make the work doable in the eyes of the student (e.g., more collaboration with the student in doing the work: "We can do this together") so that the negative behavior will be unnecessary.

**3. Capacity and Skill:** Intervention plans focus on building the student's skill and capacity in order to make problem behaviors irrelevant or unnecessary: For example, if a student uses negative behavior to escape certain tasks, Step 1 would be to teach a positive communication alternative to the negative behavior (e.g., saying "I need help" or "I need a break" rather than hitting). Step 2 would be to build capacity and tolerance so that the student could participate in the activities that he previously used negative behavior to escape.

**4. Meaningful Participation:** Intervention plans that focus on meaningful engagement in chosen life activities are a core element in order to prevent difficulties. Staff and families should analyze the student's schedule to ensure that there are ample opportunities for participation in activities that the student considers meaningful.

**5. Context:** As much as possible, the behavioral interventions and supports should be delivered in the settings and within the activities in which the student has behavioral difficulties.

**6. Involvement of the Student and Relevant Everyday People:** Intervention plans should include the involvement of all who have a stake in the outcomes, including the student, his family, relevant friends, support staff, and professional staff in collaborative decision making about and implementation of the plans.

**7. Reactive Strategies:** The behavior support plan should include strategies for reacting to the student's negative behavior that highlight redirection at the first sign of difficulty and early intervention that is as unobtrusive as possible and includes quick staff disengagement.

**8. Errorless Learning Strategies:** As much as possible, managing behavior and teaching new skills should be organized in such a way that the student makes few if any errors. [See Errorless Learning] Errorless learning has a cognitive rationale (e.g., students with memory problems often remember and repeat errors) and also a behavioral rationale. Students who experience considerable failure (errors) tend to become discouraged, which increases the likelihood of negative behavior.

## Specific Intervention and Support Procedures Associated with PBIS

### **Video Introduction to Positive Behavior Supports Illustrations Video Re-enactment: Positive Behavior Supports Video Illustration: Positive Behavior Supports**

**1. Positive, negotiated, well-understood daily routines:** To avoid difficult behaviors associated with confusion or general frustration, daily routines should be clear to the student, organized to maximize strengths, and ideally negotiated with the student. For students who are confused and disorganized, it is useful to have the daily routines at home and at school organized as either sequences of photographs for younger students or visual written schedules in an organizer for older students. These visual supports help make the routines more understandable and concrete.

**2. Prevention of Negative Behaviors:** A key to positive behavior support plans is prevention of negative behaviors versus reacting to negative behaviors.

- **Prevention: Eliminate Provocation:** One key to prevention is elimination of whatever tends to provoke negative behavior. For example, if seating next to specific students provokes negative behavior, then seating should be changed.
- **Prevention: Positive Communication from Communication Partners:** As much as possible, communication partners should use a positive and encouraging style of communication and avoid “nagging”, scolding, and other triggers for negative behavior.

**3. Self-control of Antecedents:** Students as young as elementary school age can begin to take responsibility for controlling their own antecedents. For example, if it is known that a student engages in negative behavior when he reaches a certain level of frustration or agitation, then he can be taught to recognize his escalation of negative emotions and remove himself from the classroom when he reaches a danger zone.

**4. Positive Communication Alternatives to Negative Behavior:** A key to positive behavior support plans is teaching positive communication alternatives to negative behaviors that serve a communication purpose. For example, if a student routinely uses negative behavior to indicate a need for a break, she should be taught to use positive communication to achieve the same goal (e.g., “Break please”).

**5. Positive Setting Events:** As much as possible, staff and parents should try to ensure that the background events in the student’s life are as positive as possible before introducing difficult or stressful tasks. For example, parents might allow an hour of video games after school before demanding homework. Teachers might give the student an important and enjoyable job (e.g., deliver mail to the principal) before beginning a difficult academic period.

**6. Positive Behavioral Momentum:** As much as possible, staff and parents should try to ensure that the student has experienced success (i.e., is “on a roll”) before introducing difficult or stressful tasks. When difficult tasks are introduced at a time when the student is already upset, the likelihood of negative behavior is high. **Video Illustration of Positive Behavioral Momentum**

**7. Choice and Control:** Parents and teachers should ensure that the student has as much choice and control as possible over the course of the day. Often negative behavior is an expression of a need for greater control. If that is the case, there should be many opportunities for legitimate control over the day at home and at school.

**8. Interesting, Meaningful, Do-able Tasks:** As much as possible, parents and teachers should ensure that the student has an ample number of tasks that are interesting, meaningful, and not overly difficult.

**9. Cognitive Supports:** To ensure do-ability of tasks, staff may need to provide cognitive supports, such as advance organizers or graphic displays to follow when attempting difficult tasks or use of collaborative versus solo work. **[See Organization]**

**10. Pivotal Behaviors:** Pivotal behaviors are those that trigger other learning or other successes. For example, learning to say “I need help” when tasks are difficult not only prevents negative behaviors that result from frustration, it also creates a large number of teaching/learning episodes that are meaningful for the student. Other pivotal behaviors include asking for clarification and achieving heightened motivation to engage in tasks.

**11. Positive Roles and Scripts:** Some students engage in negative behavior as a result of frustration that they lack the opportunity to play positive roles in their lives. If they can be given such positive roles in the school setting – particularly power roles – negative behaviors may decrease. Positive roles at school can include serving as the teacher’s assistant, helping other students, and the like.

**12. Recreation and Leisure:** A critical part of any positive support plan is assurance that the student has ample opportunities for fun and recreational activities.

**13. Community Mobility and Adjustment:** Depending on their age, students should have access to community places and activities that are age-appropriate and that might increase the likelihood of peer interaction. These activities may enhance life satisfaction to a degree that reduces negative behavior. For example, involvement in cub scouts or 4-H clubs and the like may enhance life satisfaction to a degree that reduces negative behavior.

**14. Satisfying Social Relationships:** Friendship, understood as a reciprocal liking and mutual bond of interests, cannot be artificially created. However, the likelihood of satisfying social relationships can be increased by ensuring that the student has opportunities for creating such relationships. School or after school clubs might be a context for social enhancement. Having desirable activities at home (e.g., the latest video games) might increase the likelihood of peers enjoying visits with the student in his home.

**15. Positive Sense of Self:** Fundamental to a PBIS framework is the long-term goal of helping the student to have a positive sense of self and a sense of self that is associated with positive social behavior. **[See Sense of Self].**

### **The Role of Consequences in a Positive Behavior Support Plan**

The PBIS framework emphasizes antecedents of behavior – preventing negative behavior and setting the student up for success. However, consequences also have a role in PBIS plans.

**1. Positive reinforcement:** It should go without saying that when students do things well, they should be praised and perhaps receive other natural and logical rewards for positive behavior. This is an important feature of any positive culture.

**2. Natural and Logical Consequences for Negative Behavior:** If a student engages in negative behavior – for example, trashes his room – then after cooling down, he should take responsibility for cleaning the room. This is a natural and logical consequence of trashing the room. For students who have difficulty modifying their behavior as a result of consequences, the goal of this consequence is NOT to modify the behavior. Rather the goal is to teach the student about how the world works – when rooms are trashed, they need to be cleaned.

**3. Immediate Salient Consequences and Short-Term Behavior Change:** Even students who do not learn efficiently from consequences may modify their behavior over the short run if offered immediate and valuable rewards for positive behavior. For example, a student may study for an exam if promised a new video game for a grade of B or better. However, it should not be assumed that a system of rewards of this sort will change behavior over the long run

## **EVIDENCE SUPPORTING THE USE OF BEHAVIORAL INTERVENTION PROCEDURES FOR CHILDREN AND ADOLESCENTS WITH TBI**

This summary of evidence is written for teachers and others who may be required to support their intervention practices with evidence from the research literature or who may simply be curious about the state of the evidence. This summary was written in 2007. Evidence continues to accumulate.

Ylvisaker and colleagues (2007) reviewed the available evidence for behavioral interventions used with children and adults with TBI. Their search yielded 65 published reports with a total of 172 participants, 54 of whom were under age 18. (The studies of children and adolescents are listed in the Resources section of this web site.) Their conclusion was that the evidence is sufficiently strong to support a clinical guideline, namely that well selected behavioral interventions and supports should be used with children and adults with behavior disorders after TBI in both acute and post-acute settings. Both traditional contingency management procedures and positive behavior intervention and support procedures (antecedent-focused procedures) were labeled evidence-based clinical options. **(See Tutorials on Positive Behavior Supports and Behavior Management: Prevention Strategies.)**

All 65 of the studies yielded positive results. However, only two of the studies were Class I randomized controlled clinical trials. Most were either Class III single-subject experiments or Class IV case studies. Therefore it is difficult to generalize the findings to all individuals with behavior disorders after TBI, or even large sub-groups within that population. Nevertheless the single-subject experiments do offer strong evidence for their conclusion – that the intervention improved functioning in the individual who received it – and can be used judiciously to support clinical decisions about individuals who substantially resemble the participant in the single-subject study.

Both of the randomized controlled trials in this review, one of which was a pediatric study, used positive behavior intervention and support procedures (i.e., antecedent-focused procedures versus near exclusive reliance on manipulation of consequences). Shari Wade and her colleagues (2006) implemented a family-centered proactive problem-solving intervention program to assist children with TBI to participate effectively and prevent problem behaviors. The procedures that families learned included many of the support procedures listed in the **Tutorials on Behavior Management: Prevention Strategies and Positive Behavior Supports.** The families spoke highly of the intervention and the effects on the children were positive.

The traditional contingency management procedures discussed in the current tutorial have a long history of supportive research with many disability groups. Selected contingency management procedures have also been used effectively with some children with problematic behavior after TBI.. However the review by Ylvisaker and colleagues demonstrated a strong shift from primary use of contingency management strategies in the 1980s to primary use of proactive antecedent-focused strategies in recent years. A possible explanation for this shift is the mounting evidence that damage to the undersides of the frontal lobes (common in TBI) creates inefficiency in learning from the consequences of behavior (Damasio, 1994; Rolls, 1998; Schlund, 2002). Contingency management procedures assume reasonable efficiency in learning from consequences. Therefore antecedent-focused procedures may have a neurological rationale for many children with TBI.

Like TBI, ADHD designates a population of students with executive function/self-regulatory impairments associated with possible pathology in frontal lobe structures. The ADHD intervention research literature is much larger than the TBI literature and can, therefore, be used with discretion as a guide to successful interventions for students with TBI. Zentall (2005) summarized a large number of studies demonstrating the effectiveness of environmental support and task modification procedures to increase the likelihood of successful academic performance and behavioral self-regulation for students with ADHD. Many of these studies are individually summarized in her 2006 book. Although these procedures were not specifically discussed as “behavior management” procedures, any approach that increases the student’s successful engagement in activities can be considered behavior management, especially in the case of impulsive, oppositional, or otherwise poorly regulated students.

Russell Barkley has frequently reviewed the research on behavioral interventions for students with ADHD (e.g., Pfiffner, Barkley, & DuPaul, 2006). Most of the interventions that have been studied with that population have been delivered within the framework of traditional contingency management (e.g., point systems, response-cost procedures, and the like). Barkley typically concludes that these procedures can be used to control behavior, but the contingencies (i.e., rewards and punishments) need to be more salient (i.e., powerful), consistent, and immediate than one might otherwise expect for a student of that age. Furthermore, maintenance of the treatment effect over time or transfer to other contexts is unlikely. This is another reason to explore the usefulness of proactive, antecedent-focused procedures.

Regardless of the state of evidence in the research literature for specific behavioral procedures, the selection of such procedures in the case of a specific student should be made on the basis of a functional behavior analysis. Chandler and colleagues (1999) showed that teams of educators in a classroom context can successfully implement both functional behavior analyses and positive behavior supports.

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