Tutorial: Behavior Management; Prevention Strategies
(See also Tutorials on Contingency Management, Noncompliance, Motivation)

WHAT ARE PREVENTION STRATEGIES?

In the context of behavior management, prevention strategies are the procedures that individuals use to keep others from engaging in negative behavior. We often use prevention strategies with one another as adults. For example, when a coworker arrives at work physically or emotionally drained, we tend to offer support, reduce demands, and expect less productivity. This is plain common sense when we know that somebody will have a difficult time dealing with environmental demands.

Prevention strategies are also used extensively with young children. For example, most parents remove breakable objects when they have a toddler in the home, knowing that toddlers explore everything and are likely to break the valuable objects. Similarly plugs are placed in electric outlets, clasps are placed on cabinet doors that should not be opened, gates are placed in front of stair cases, and the like. These strategies are common sense “child proofing” procedures that parents use when there is an impulsive child in the house. All of these strategies are used with students with TBI.

WHY ARE PREVENTION STRATEGIES IMPORTANT FOR MANY STUDENTS AFTER TBI?

Many students with TBI, as well as many with other disabilities, such as ADHD, have damage in the parts of the brain associated with impulse control (bottom sides of the frontal lobes). In these cases, the student may have the physical and intellectual attributes of a 5 or 10 or 15 year old, but have the capacity for impulse control of a much younger child. These students may be frustrating for teachers and parents because it is hard to understand why a student who looks and thinks like a mature student cannot control impulses any better than a very young child.

In addition to impulse control problems, students with brain injury may have chronic pain, ongoing frustrations associated with their disability, chronic sadness associated with loss of friends and favored activities, and other nagging problems. These conditions lower the threshold of frustration tolerance, so that it is easier for the student to lose control and act in ways that are uncomfortable for others.

Finally, many students with brain injury have damage to the parts of the brain associated with the ability to learn from consequences (bottom sides of the frontal lobes). For this reason, trying to manage and modify their behavior through rewards and punishments (i.e., contingency management) is predictably ineffective. For all of these reasons, prevention of negative behavior and facilitation of positive behavior is the strategy of choice for these students.

WHAT ARE THE MAIN THEMES IN INSTRUCTION AND SUPPORT FOR STUDENTS WHO HAVE IMPULSE-CONTROL PROBLEMS, DO NOT LEARN EFFICIENTLY FROM CONSEQUENCES, OR WHO FOR OTHER REASONS BENEFIT FROM PREVENTION PROCEDURES?

(See also Tutorials on Positive Behavior Supports; Discipline; Instructional Routines)

Understanding the Problem: The first and perhaps the most important step in helping these students is to understand that their difficulty with impulse control is, at least in part, neurological. If adults do not understand the source of the difficulty, they will experience frustration in trying to manage the student, they will probably use ineffective behavior management procedures, and the student will probably not improve.
Understanding, not Excusing: Highlighting the importance of understanding is not the same as excusing. Hitting and other negative behaviors are not excusable. Inexcusable behavior is inexcusable, even if the student is impulsive. Students need to be held accountable for their actions. However, understanding the student’s neurologically-based impulsiveness should lead to systems of management that place primary emphasis on preventing negative behavior in the future rather than simply reacting to that negative behavior when it occurs.

“A pound of prevention for every ounce of reaction”: Particularly with impulsive children, it is critical to focus primary effort on preventing negative behavior rather than simply reacting to that negative behavior. This is common sense when dealing with toddlers who are famous for being impulsive. Parents try hard to “child proof” the environment so that they do not have to spend their days reacting to the difficulties that an impulsive child will inevitably get into. Many children with brain injury, ADHD, and other diagnoses are like young children with respect to impulsiveness. Thus prevention is the key. [See Positive Behavior Supports]

“Childproof” the environment: (See five types of “child-proofing” below)

Create everyday routines of activity and interaction that are well understood by the students and effectively supported, so that the children experience success in their lives. [See Instructional Routines; Organization]

Expect impulsive and poorly regulated behavior from time to time, especially if the student is tired or stressed, there are changes in routine, the environment is overly stimulating, or demands are high. Remain calm. Adult anxiety and agitation increase the student’s anxiety and agitation.

Don’t expect immature students to routinely regulate their behavior effectively – control impulses and defer gratification – in relation to a distant goal (e.g., control impulses now in order to get a reward or avoid a punishment at the end of the day) or an abstract rule (e.g., “Think about others’ needs, not just your own”).

Use behavior management procedures that are proactive, positive, and supportive. That is, set the student up for success rather than reacting to the student’s failures. Negativity and punishment usually breed a downward cycle of more negativity and punishment with developmentally young students. [See Positive Behavior Supports]

Positive behavioral momentum: Before introducing stressful or difficult tasks, make sure that the student has experienced success with less difficult or less stressful tasks. Ideally the student will have experienced sufficient success that he enters difficult tasks with a reasonable level of confidence. Video Illustration of Positive Behavioral Momentum

Use an interactive and teaching style that is positive and supportive (versus threatening and “testing”). [See Apprenticeship Teaching]

Use everyday conversational routines of interaction that are designed to become internalized by the students as their own self-regulatory system. [See Self-Regulation Routines]

Ensure that instructions and expectations are clear. State instructions clearly, repeat them as often as necessary, and use concrete (e.g., graphic) organizational supports liberally. [See Advance Organizers]

Help the child develop a sense of self that includes competence and a desire for self-regulation. [See Sense of Self]

“Childproofing”

In a school setting, childproofing the environment has the following components:

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1. **Childproof the physical environment**: Make sure the students are not exposed to dangerous situations; make sure that they are not overly tempted by readily accessible and highly desirable things, activities, or people that predictably distract them from the task at hand or elicit impulsive or negative behavior.

2. **Childproof the activity environment**: Make sure that the students are capable of doing all that is expected and requested of them. (See Apprenticeship Teaching) If the adult is the student’s collaborator (i.e., partner or team member – versus tester or drill master), then the students will always be able to complete the task – and can become more independent as they gain competence.

3. **Childproof the social environment**: Make sure that students are with other students with whom they are reasonably compatible. Prevent social interactions that are threatening or cause agitation. Make sure that trained and supportive adults are with the students during predictably difficult times and tasks.

4. **Childproof the expectation environment**: Make sure that expectations for the student’s performance and participation are appropriately adjusted relative to abilities, stressors, moods, illness, tough times, and the like. For example, parents of two-year olds try hard to make these adjustments – and it is important in school as well, in the case of children who are particularly immature in self-regulation.

5. **Childproof the known stressors, such as transitions and changes in routine**: Students with self-regulatory weakness are notorious for having difficulty with transitions (even apparently simple transitions from, say, snack back to work) and changes in routine. Try to insulate the student from such known stressors with good preparation and special support during the transition and at times of change in routine.

### 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: Contingency Management.)

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.

A series of nine single-subject studies reported by Feeney and Ylvisaker (1995, 2003, 2006, in press) demonstrated the effectiveness of several support-oriented behavioral procedures for both young children and adolescents with serious behavior problems after TBI. The following proactive procedures were used: (1) developing positive momentum before difficult tasks, (2) ensuring the do-ability of the tasks, (3) providing advance organization, including advance graphic organization, before complex tasks, (4) ensuring positive communication from communication partners, (5) providing the children with as many opportunities for choice and control as possible. In each case, the students’ negative behaviors decreased in frequency and intensity while their academic productivity increased.

Traditional contingency management procedures (*See Behavior Management: Contingency Management*) 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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