Tutorial: Behavior And Behavior Problems After TBI

[See Tutorials on Behavior Management: Contingency Management; Behavior Management: Prevention Strategies; Positive Behavior Supports; Discipline; Motivation; Teaching Positive Communication Alternatives; Anger Management; Aggression]

**Note:** All schools have designated individuals who are trained in behavioral assessments and development of behavior plans. Behavior specialists should be involved in making decisions about how to support students with behavioral challenges after TBI. The main goal of the set of tutorials in the area of behavioral issues after TBI is to highlight the information that is especially important for this population and the intervention and support strategies that are often recommended for these students.

**WHAT IS BEHAVIOR?**

The term “behavior” refers to whatever a person does, including overt, observable behavior and covert, unobservable behavior (e.g., thinking, feeling). In a specific context, behavior can also include the absence of behavior (e.g., not responding when given a command).

**Observable behaviors** include whatever you can see another person doing. This includes walking, talking, sitting, singing, hugging, eating, sleeping, doing math problems, and the like.

**Unobservable behaviors** include the mental and emotional activities and states that cannot be directly observed. These include emotional states, like anger, desire, happiness, and the like, volitional states like wanting to be noticed, intending to please, and the like; cognitive states, like thinking about something or being confused about something; and sensory experiences, like hearing or seeing.

**The absence of a behavior can count as a behavior:** When a person fails to do something that is expected, like responding when spoken to, then the absence of the behavior can be considered a behavior (non-responding).

“Behavior” is not a synonym for “bad behavior”: The word “behavior” is sometimes misused as a synonym for challenging or negative behavior (e.g., “John has lots of behaviors, Sally doesn’t have any behaviors”). There is great danger in using the term this way. Among other things, it encourages staff and family to pay attention only to negative behaviors.

**WHY ARE BEHAVIORAL ISSUES IMPORTANT FOR MANY STUDENTS WITH TBI?**

Many studies suggest that up to 50% or more of students with TBI have some behavioral challenges after the injury. These challenges are most often associated with externalizing behavior problems (e.g., hitting, yelling, making rude comments); however, behavioral issues are sometimes internalizing problems (e.g., social withdrawal, inactivity). In some cases the problems after the injury are an extension or worsening of problems present before the injury. In many cases, behavioral changes are directly related to the injury itself (e.g., aggression related to frontal lobe injury causing inhibition impairment). In some cases, the behavior problems are a reaction to the many restrictions in life after the injury or are a consequence of psychological distress associated with disability and failure after the injury.

**Is the challenging behavior a consequence of the injury?** This question is asked frequently. A thoughtful answer may require considerable assessment work. But often the answer is that the difficult behaviors are a consequence of complex interaction between injury and non-injury factors. The question then becomes, does it make a difference that the problem behaviors are associated with the injury? In many cases, the answer to this question is that yes, it does make a difference. In the tutorials on Behavior Management: Prevention Strategies and Positive Behavior Supports, the point is made that students with frontal lobe injury may be very impulsive or may not learn efficiently from consequences of their behavior. In these
cases, it is critical to use proactive, antecedent management approaches as opposed to contingency management. [See Tutorials on Behavior Management; Prevention Strategies and Positive Behavior Supports.]

WHAT ARE THE MAIN THEMES IN INTERVENTION AND SUPPORT FOR STUDENTS WITH BEHAVIOR PROBLEMS?

[See Tutorials on Behavior Management; Contingency Management; Behavior Management; Prevention Strategies; Positive Behavior Supports; Disciplining: Motivation; Teaching Positive Communication Alternatives; Anger Management; Aggression]

Understanding the behavior and its function

Helping a student with problem behavior requires that teachers and parents begin by understanding the behavior and the function it serves for the student. To achieve this understanding, the starting point is a good description of the behaviors. This is not as easy as it may sound. Many people inadvertently interpret behavior when they think they are describing it. For example the following are all interpretations, not descriptions: “He is frequently non-compliant” “He engages in manipulative behaviors” “He is frequently aggressive”. When staff leap too quickly to potentially mistaken interpretations of a student’s behavior, the predictable result is ineffective behavior management, because the behavior and its function may have been misinterpreted.

For example, a student may cry and put his head on his desk when told to do math problems. This may be identified as “non-compliance” with a resulting plan that requires staff to persist and force the student to do the work. However, the behavior may be a way of communicating “I think it’s too hard. I need help” in which case the plan might be to do several problems collaboratively at the beginning of the math lesson in order to help the student gain confidence.

Description Versus Interpretation of Behavior: What follows are illustrations of behaviors described objectively followed by several possible interpretations of that behavior.

**Description:** He is opening the door and walking out of the room.
**Possible Interpretations:** He is escaping the task; he wants to go to the bathroom; he feels sick.

**Description:** He is squealing and flapping his hands
**Possible Interpretations:** He is stimulating himself; he is withdrawing from reality; he is trying to get my attention

**Description:** He is laughing.
**Possible Interpretations:** He is showing disrespect for his teachers; he is trying to get my attention; he is remembering a good joke.

**Description:** He cut his arms.
**Possible Interpretations:** He attempted suicide; he is crying for help; he is trying to be like his friends

Functional Analysis of Behavior

Functional analysis of behavior – or functional behavior assessment (FBA) – assumes that behavior is related systematically to antecedents and consequences. Or – another way of saying the same thing – assumes that behavior is purposeful. That is, when people do things, it is to achieve some outcome, however unconscious that outcome or goal may be. Functional assessments of behavior have two stages: observation/correlation and experimentation (hypothesis-testing).
**Observation/correlation:** The goal of systematic observation of the student in a variety of contexts is to determine what events (stimuli) seem to be correlated with and possibly trigger the behavior in question and what events (consequences) seem to be correlated with and possibly maintain that behavior. Ideally, observations are made in as many settings as possible, in the context of as many activities as possible, and with as many people as possible. Sometimes the triggers are hard to observe because they may be remote (e.g., a fight on the bus in the morning was the trigger for refusing to participate in class early in the school day).

This observation is usually referred to as ABC analysis: A=antecedent; B=behavior; C=consequence. The primary purpose of ABC analysis is to generate hypotheses about the function of the behavior. ABC analysis by itself cannot show conclusively that the behavior serves a specific purpose.

**Experimentation/hypothesis testing:** Observations generate hypotheses – possible interpretations of the behavior. Systematic experimentation with hypotheses regarding the meaning/purpose of the challenging behavior is then required. For example, a hypothesis might be that hitting serves the purpose of getting out of an activity. Therefore, if we routinely prompt and then reward verbal requests for a break (e.g., “Can I have a break now?”), does the hitting disappear? If so, the meaning/purpose of the challenging behavior was probably “I want a break.” Prompting and rewarding the alternative behavior (requesting a break) was an experiment – a test of the hypothesis that the behavior served the purpose of achieving a break from work.

**Common Functions/purposes of Challenging Behavior**

Students engage in a variety of behaviors that may be considered unacceptable in school or at home. There are two broad classes of such behaviors:

**Socially Motivated Behavior or Behavior with a Communication Purpose:** Common communication functions of challenging behavior include the following:

1. Acquire or gain access to: others’ attention, others’ respect, others’ sympathy, favored objects, favored activities, favored people, favored places (e.g., a student cries in class in order to gain sympathy from his classmates and aide)
2. Escape or avoid: others’ attention, undesirable activities/work, undesirable people, undesirable places (e.g., a student talks out in class in order to be removed from math class)
3. Express affection: (e.g., a student hugs others even though they may not want it)
4. Demonstrate skill or power: (e.g., a student refuses to do what the teacher commands in order to demonstrate power over her)

**Non-Socially Motivated Behavior:** No Communication Purpose Common non-communication functions of challenging or unusual behavior include the following:

1. Create needed stimulation (self-stimulation): e.g., a student rocks and hums in order to create needed stimulation
2. Reduce incoming stimulation: e.g., a student covers his ears in order to block out confusing stimulation

**Modifying the Behavior**

**Behavior management/behavior modification** refers to any strategy or procedure that is deliberately used to increase or decrease the likelihood of a specific behavior. Behavior management strategies may be used before the target behavior occurs in order to facilitate specific positive behaviors or prevent specific negative behaviors (called **antecedent management**) or after the behavior in order to increase the likelihood of more of the same if it is positive or reduce its likelihood if it is negative (called **contingency management**).
Examples of antecedent management procedures that are used before the student engages in a specific behavior with the goal of increasing the frequency of that behavior:

1. A therapist offers interesting activities with the goal of maintaining the student’s engagement in therapy tasks.
2. The teacher shows the student an organizer for completing a complex task with the goal of increasing the chances that the student will stay with the task and succeed.

Examples of management procedures that are used before the student engages in a specific behavior with the goal of decreasing the frequency of negative behaviors:

1. The teacher does the first 2-3 math problems with the student with the goal of preventing a negative reaction to the math assignment.
2. The teacher never asks the student to do something unless she believes that the student is capable of doing it.
3. The teacher never interacts with an oppositional student in a way that invites an oppositional response or creates a power struggle.
4. The teacher invites the student to do an important responsible job for her at the beginning of the day with the goal of preventing negative behavior often associated with the bad mood the student typically arrives at school in.

Examples of contingency management procedures that are used after the student engages in a specific behavior with the goal of increasing the frequency of that behavior:

1. A mother claps her hands and squeals with glee when Johnnie eats a bite of broccoli – in order to increase the likelihood that he will eat more broccoli.
2. A teacher praises the student for working hard after he turns in an assignment – in order to increase the likelihood of more hard work and timely submissions.

Examples of management procedures that are used after the student engages in a specific behavior with the goal of decreasing the frequency of that behavior:

1. A student talks out of turn in class; the teacher turns away and calls on another student.
2. A student pushes another student; the teacher removes a star from next to his name and reminds him that he will have no fun time today.

In several Tutorials, specific behavior management strategies are offered and discussed: Behavior Management; Prevention Strategies; Behavior Management; Contingency Management; Positive Behavior Supports; Prevention; Discipline; Anger and Anger Management; Manipulativeness; Noncompliance; Motivation

Written by Mark Ylvisaker, Ph.D. with the assistance of Mary Hibbard, Ph.D. and Timothy Feeney, Ph.D.