



**BRAIN INJURY
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No Brain Injury is
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Managing Challenging Behaviors in Children and Adolescents After Brain Injury

By Brad Ross, Ph.D.

Managing challenging behaviors after pediatric brain injury can be a challenge. While many areas of the brain can influence behavior there are two areas most often injured, the frontal and temporal lobes.

The frontal area of the brain is responsible in part for executive skills functioning and involved in learning to adapt an individual's affect, behavior, and cognition to the changing demands of complex environments. These processes include self-regulation and self-monitoring, problem solving, reasoning, goal formulation, and learning from the consequences of one's behavior. A child's brain is a developing brain and the frontal area continues to mature through early adulthood.

The limbic system of the brain contains the seat of emotions which the frontal lobes help regulate. When frontal lobe damage has occurred or the connection from the frontal lobe to the limbic system is disrupted, behavioral dyscontrol can occur. Damage to the temporal lobes can result in short term memory loss that impacts learning of new skills.

Approaches to behavior programming can be different with children and adolescents who have brain injury. Parents traditionally identify a behavior and then apply a reward or punishment to strengthen or decrease a behavior. In other words there is a consequence for a behavior that will change the frequency of future behaviors. With brain injury, if the reinforcement center in the frontal lobe is damaged or faulty connections from the limbic system to the frontal lobe are present, the reward and punishment approach may be ineffective.

Even when the traditional approach is effective, it is more important to be proactive and to focus on the trigger or antecedent for a behavior rather than the consequence either by changing the environment so the trigger does not occur or having the child or adolescent learn to recognize a trigger prior to a crisis and find a way to diminish the effects.

A consistent approach for the development of desirable behaviors should be used. Every behavior to be developed should be considered a skill and should be specifically defined, broken into steps, and taught with constant monitoring. Before you attempt to change an undesirable behavior, you need to accurately determine the antecedent and how often it is occurring. Is the behavior a minor annoyance but happening often? Or does the behavior occur infrequently but at such an intensity that it is disturbing? Parents and teachers often remember intense behaviors as happening more often than they really do. Negative behaviors that do not happen very often



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are more difficult to change since there is less of a chance to work on them. Each behavior, which the adult wants to change, should be replaced with a more desirable alternative.

Behavior is a way of communicating. This is especially true for children who are not able to verbally express themselves adequately which can occur after brain injury. Behaviors viewed as inappropriate or maladaptive are actually the child's way of adapting to his or her own environment. Understand the goal of the child's misbehavior. By understanding the goal of the child's behavior, it will be easier to change it. Sometimes these behaviors are very effective in getting child what he wants, e.g., "If I tantrum long enough, they will give in." Is the behavior for attention, power seeking (being the boss), revenge, or because the child feels inadequate or discouraged. In addition children with brain injury often have a low tolerance for frustration and difficulty generalizing.

Whenever possible, use natural and logical consequences for behaviors so that generalization will more easily occur. Directly teach the child the relationship between desirable behaviors and preferred activities, e.g., "Since you are ready for bed, you will get a bedtime snack. Since you have washed your hands, you are ready for dinner." Directly tell the child the expected behavior and encourage attempts at that behavior.

It is often more important to give encouragement for work toward a goal or behavior than a reward for the final product. Through understanding the cause of challenging behaviors after brain injury and finding alternative approaches in addressing these behaviors, parents and stakeholders can more successfully address these challenges.

Brad Ross, PhD, is a Pediatric Neuropsychologist at Children's Specialized Hospital in Mountainside, NJ, and a member of the Brain Injury Association of New Jersey's Children & Adolescents Committee.