

# Handle With Care

## School Integration: Addressing Behavioral Needs of Students Following Brain Injury

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### **Communication, Information, and Understanding**

Integrating a student with TBI back into his/her school should begin with communication between the medical service providers and the school prior to the student's return. The training and background of many school psychologists make them logical liaisons between schools and medical/rehabilitation facilities. Many school psychologists are knowledgeable about clinical and medical issues and have served as treatment facilitators for children who have been hospitalized for psychiatric, neurobehavioral, and medical reasons.

The amount and quality of the information provided prior to the student's return can greatly assist the school psychologist in preparing the teachers and staff for program changes that the student may need. While many medical reports contain information regarding physical and neurological changes sustained as a result of TBI, information about behavior changes is often limited. Another problem facing educators who plan for the return to school of a child with TBI is the fact that the medical descriptors used to describe the degree of physiological disruption often do not provide information useful in predicting educational need. It is not unusual for

the educational performance of children with TBI to be complicated by subtle cognitive and behavioral problems (Savage, 1991).

A referral to special education is often the most appropriate way to determine the extent of a student's need for specialized services, whether academic or behavioral in nature. While most programming focuses on helping the student with academic needs, to discount the behavioral implications of TBI can significantly influence the effectiveness of programs. For example, a student may still read on grade level, but the cognitive problems associated with TBI may significantly interfere with retention of information and higher-order thinking, such as interpretation, analysis, and judgment. The cognitive problems often seen in students with TBI include inattention, slowed information processing, poor memory, difficulty planning and initiating, and impaired visual-spatial skills and visual-motor integration (Ewing-Cobbs, Fletcher, & Levin, 1986). When these deficits are viewed through a behavioral perspective, one can see that a student's problems may lead to classroom disruptions, impulsive acting-out, and misinterpretation of social situations. Programming that addresses only the academic manifesta-

tions of TBI is often inadequate to assure a student a free and appropriate public education.

**More than one million children and adolescents sustain brain injuries each year. Traumatic Brain Injury (TBI) is not new to schools, but working with students with TBI and behavior or emotional problems can be challenging, at best.**

Behavior problems have been reported to be the most troublesome aspect of recovery for families and schools (Levin, 1987). Common behavior problems include increased aggression, anger, hyperactivity, anxiety, depression, emotional lability, social withdrawal, and somatization. Physiological damage to brain areas that regulate emotional control results in maladaptive behaviors, but is not the only contributing factor (McAllister, 1992). The sudden and dramatic changes in a student's life after TBI, no doubt contributes to the level of emotional problems that these students face. It is not unusual for students to

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have increased irritability and feelings of helplessness, which can dramatically affect motivation and progress. Researchers have found evidence that the more severe the injury, the more severe the behavior problems these students exhibit. Michaud and her colleagues found that children with TBI are three times more likely than the general population to develop serious behavior disorders and are more likely to be placed in special education classes for behavioral/emotional disturbances (Michaud, Rivara, Jaffe, Fay, & Dailey, 1993). However, educators may not always see the connection between behavior disorders and brain injury.

The issue of emotional disturbance can be complicated by TBI. A thorough background and historical evaluation is the only way to identify factors that contribute to the onset of problematic behaviors. This information can be supplemented with behavior rating scales

that reflect current behaviors, but a rating scale is not a substitute for interviews with parents and teachers. Behaviors that are long-standing in nature and part of the student's constitution may need to be addressed differently than those behaviors that have occurred since the student sustained an injury. The knowledge of the evaluator in interpreting this information is critical. With knowledge of how neurological systems affect behavior, the evaluator can identify behaviors that are suspected to be related to injury and thus, require a more extensive intervention program. When behaviors are related to or exaggerated by injury, the possibility of an underlying skill deficit should always be explored and addressed.

For example, a student who previously was prone to depressive episodes may have more problems benefiting from counseling after a traumatic brain injury than her previous history would suggest.

Her ability to engage in planning and the tendency to react impulsively can interfere with her use of techniques she may have developed to deal with her depressive feelings. Especially in the case of adolescents, counseling should include making the student aware of how the injury can affect them and how they can compensate for their difficulties, given their current status.

## Behavior Intervention Plans

When behavior significantly interferes with academic or social progress, a behavior intervention plan is necessary. In designing intervention plans, a functional behavior assessment (FBA) is a must. There are many formats for conducting a FBA, which not only involves hypothesizing about the function of the behavior, but should also evaluate environmental influences and skill deficits. Attention and concentration deficits and difficulty inhibiting responses are common skill deficits after TBI. Often, additional assessment can be valuable when it measures cognitive processes or executive functioning. Identifying these deficits can help in designing intervention plans, which may include remediating deficits that are interfering with the student's ability to learn alternative responses. It is these alternative, replacement behaviors that you must identify through your FBA in order to design an effective program.

## Functional Behavior Assessment

The five main outcomes of a functional behavior assessment are: 1) a clear description of the problem; 2) identification of situations that predict when the behavior will and will not occur; 3) identification of consequences that maintain the behavior; 4) development of one or more summary statements that describe the behavior, the predictor(s), and the consequences or reinforcers; and 5) collection of direct observation data that support the summary statement. The first step in a FBA includes an operational definition of the problem or target behavior. This definition should



be exact enough so that any other person would be able to identify that behavior if he/she saw it. The next step is to collect data prior to interventions to determine the baseline occurrence of the behavior in order to measure progress when the program is implemented. During this data collection process, information will also be obtained regarding the antecedent, behavior, consequence (A, B, C) sequence. If we understand these ABC's, we can rearrange the environmental events to facilitate the occurrence of more appropriate responses.

The antecedents are the circumstances and things that happen prior to the target behavior occurring and start the behavior cycle. Problem behaviors rarely occur in isolation, and when looking at antecedents, it is important to consider the physical environment, the demands of the task, instructional strategies, the behavior of peers, and internal factors that may contribute to the student's behaviors.

Behavioral consequences are not just punishment. They are events, both positive and negative, that occur immediately after the behavior. Consequences are often associated with the function of behavior, the reason the behavior continues, or the "need" that the behavior satisfies. In determining the function of behavior, remember it is the student's perception of what is desirable or pleasant that matters. For example, a student may find any attention desirable, even negative attention. The primary functions of behavior are to obtain something or to avoid something.

### *Intervention*

Once the function of a target behavior is hypothesized, then planning begins to identify replacement behaviors that will meet the same function. For example, if a student acts out inappropriately to obtain attention, more appropriate ways for him to get attention should be identified, taught, and reinforced. It is often useful to involve the student in this

planning stage; they are the "experts" on knowing what they want. After a plan is designed, it must be communicated effectively to the staff members who will implement it. Training on the plan from the school psychologist or behavior specialist is a critical element. Continued monitoring of the plan and its effectiveness is also important. Don't be afraid to modify the plan, as the student's response to the plan is also a part of the evaluation of the treatment effectiveness. Student responses may change as they develop skills and therefore the plan should change as well.

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Research consistently shows that the use of positive behavior supports is the most effective way to change behavior. Identification of antecedents to behavior problems, through the FBA, can identify the "triggers" to maladaptive behaviors. By identifying these "triggers," teachers and staff members can intervene and teach the student more appropriate responses prior to behavioral outbursts. Behavior Intervention Plans (BIP) should include procedures for staff to redirect students to more appropriate responses at this "trigger" stage. By intervening early in the behavior escalation cycle, many problem behaviors can be avoided. The use of positive behavior supports to promote behavior change is most effective when it is done frequently and at the time the student is using the alternative, replacement behavior whether that use is prompted by the teacher or used independently by the student. For this reason, behavioral programming for students with TBI often requires frequent monitoring and increased staff awareness of antecedents in order to be effective.

For example, a student who tends to act out when presented with academic demands should be taught techniques to reduce frustration, such as: asking for help, use of stress reduction strategies, or taking a self-determined time-out. When the student is presented with academic demands, he should be reminded of compensation strategies and then be reinforced for using them. Often, students who are prone to acting-out behaviors receive excessive consequences for their inappropriate behaviors, but receive limited reinforcement at times when they use appropriate responses and do not act out. Training on the student's individual behavior intervention plan should include all teachers and staff who will work with the student to ensure consistency of programming.

Environmental antecedents should also be addressed in behavioral programming. Many students with TBI have distorted visual processing and the components of the environment can contribute to behavior problems. Some students are sensitive to light, the color of paper, or the amount of space around them, and these environmental influences should be controlled in school programming. For example, I had a student who was six months post-trauma and was having significant behavior problems on the school bus. He was irritable and often verbally and physically aggressive during the bus ride. Further exploration of his problems, through interviews with his parents, revealed that even when riding in the family car he often became irritable and occasionally nauseous. Medical reports indicated trauma to vision centers in the brain and testing showed significant visual-spatial and visual-integration deficits. Now, consider the environment when riding on a bus or even in the family car. The sunlight coming through the windows, the crowd of people, and the increased sensory bombardment appeared to be contributing to his problems. We provided him with very dark sunglasses, like the kind you get from the optometrist's office after you have had your eyes dilated, and a hand-held

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memory game to play on the bus. With this strategy we reduced the stimulation of the bus environment, provided him with an alternative to looking out the windows, and reduced acting out on the bus. This strategy also proved useful when he was riding in the family car.

Students with TBI and severe behavioral/emotional problems may require intensive interventions upon returning to school. While no single program is appropriate to all students with TBI, many require gradual reintegration into general education routines and classes. Increased services through resource instruction, counseling, or behavioral programming is often needed. The level of services needed may also change over time and programs should be reviewed often.

Behavioral programming should always focus on increasing desired behaviors through the use of positive behavioral supports. While consequences to aberrant behaviors are a part of the behavior intervention plan (BIP), the use of negative consequences alone is not sufficient to promote long-term changes in behavior.

The emotional status and needs of the student should also be addressed. Depression and self-esteem issues are often present in students with TBI. While medication is effective in addressing symptoms of depression, research consistently shows that the most effective treatment regimes include both psychopharmacological interventions and counseling. As stated previously, counseling should include helping the student understand his/her abilities and disabilities and how to compensate for the changes in skills. Helping the student's

friends and peer groups understand these changes can also be helpful. All children have a need to belong and when the consequences of TBI interfere with their social functioning, emotional problems often result. Having an accepting, accommodating peer group is often a critical element in the success of reintegration into the school community.

## Conclusion

Careful planning and coordination between home, school, and medical settings can provide the support that students with TBI need to be successful. Public schools are probably in the best position to provide services to students with neurological injuries, given the diversity of the specialists employed and their access to both families and students. Parents should be encouraged to seek out these services for the long-term welfare of their children.

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