

Behavioral Challenges After Brain Injury

Author: Chris Persel, M.A., CCM, CBIS, CPHM

Fact Sheet

Produced by:
Chris Persel, M.A.,
CCM, CBIS, CPHM
Regional Director of
Clinical Services,
Director of Behavior
Programming

**A Special Interest
Group of**



Contact us:
ANPT
5841 Cedar Lake Rd S.
Ste 204
Minneapolis, MN 55416
Phone: 952.646.2038
Fax: 952.545.6073
info@neuropt.org
www.neuropt.org

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Affecting over 3 million people each year, neurological damage from events like trauma and stroke can be devastating to the individual and those close to them. Not only can brain injury result in potentially lifelong physical and cognitive changes, but the impact on a person's behavior can profoundly alter how they function day to day (CDC, 2015). The behavior challenges following damage to the brain can impede the individual's recovery goals and may impact their ability to live independently. Profound changes in personality and behavior often represent the most significant barrier to successful reintegration back into the community, their families, work and recreational/social activities (Beaulieu, 2008).

Common behavior issues following brain injury include behavior excesses (occurring too much) such as irritability (e.g., poor tolerance, short temper), aggression (e.g., hitting, grabbing, kicking), property destruction (e.g., striking furniture, throwing items) and inappropriate vocalizations (e.g., cursing, yelling, threats). Presenting further concern are behavior deficits (do not occur enough) such as compliance with tasks (e.g., cooperation with requests), social skills (e.g., overfamiliar discussions, uncharacteristically rude remarks), initiation (e.g., knowing when to begin tasks) and the skills needed for academic and return to work success (e.g., being on time, following directions) (Persel 2018). Some of the most difficult behaviors can also be dangerous to the patient and others around them. Treating these dangerous and challenging behaviors, which may include physical aggression toward others, self-injurious behavior, sexual disinhibition, and escape or elopement, requires a treatment commitment across the continuum of care.

In the early, acute stages of recovery from brain injury, many of the behavior complications demonstrated are considered a normal part of recovery (Rao 2009). When these behaviors continue beyond those early phases and the individual forms negative patterns of interacting with others, specialized treatment is required. While this pattern may be clear in patients that have experienced moderate to severe brain injuries, altered behavior

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is also frequently displayed in individuals who suffered a mild brain injury. These behavior changes can be disturbing to families and staff, disruptive to activities and therapy, and can jeopardize patient safety (Persel 2018). The future quality of life for the patient and their family depends on effective interventions and being provided with appropriate structure and consistency. While behavior analysts (professionals in Applied Behavior Analysis) can add value to interdisciplinary rehabilitation teams by helping to develop both skill acquisition and behavior reduction programs throughout the patient's recovery (i.e., acute, post-acute, long term care), they are not commonly available to the treatment team. It becomes essential that all members providing treatment understand the behavior issues and participate in implementing the most effective approach. Behavior analysts and therapists must take time to directly observe interactions, determine what may be motivating the difficult behaviors, and what responses may need to be strengthened and reinforced. Basic principles of applied behavior analysis such as reinforcing positive and effective behavior patterns while not reinforcing ineffective and inappropriate behavior are key to a successful outcome (Persel 2018). All involved parties must be consistent in their response to behaviors so the individual can learn prosocial behaviors efficiently. Many behavior difficulties result in the person gaining attention, escaping or avoiding difficult tasks or getting access to preferred materials. It is vital that the patient does not gain attention or escape activities by demonstrating problem or disruptive behaviors (e.g. instead, withdraw attention or provide guidance to complete tasks). The treatment team must work to establish a good, working relationship with the patient, ignore "junk" behaviors, redirect the patient to positive behavior patterns and reward good effort and compliant interacting (PCMA).

Developing a specialized and specific behavior intervention plan establishes the most effective and acceptable response patterns and framework to help the patient maintain positive, prosocial responses, and learn more efficient functional skills. The behavior analyst or a knowledgeable, designated therapist can provide training and practice

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regarding the plan to all those who may interact with the patient, including, most importantly, the family. The program should address how the patient will meet their needs in positive ways and how they can be better understood without resorting to problem behavior. It is also essential that “data” be collected such as frequency of a behavior occurring, to help determine if the intervention plan is working or is requiring adjustments. The effects of brain injury and how the patient learns best are highly individual, which then challenges the behavior analysts, family and others on the treatment team to evaluate the responses, goals, and outcomes throughout recovery (e.g., monitoring response to new medications, understanding of program expectations).

Considering the risk to patients and families, the rising healthcare cost and the possibility of reduced services being available, a focus on structured, efficient and effective interventions such as the use of behavior analytic principles, seems essential to a well-integrated, interdisciplinary rehabilitation treatment plan. The quality of life for those affected by brain injury depends on having the opportunity to receive specialized, experienced and effective treatment specifically designed to address the unique difficulties these patients face including problem behaviors.

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