

As a clinical psychologist who conducts neuropsychological assessments, I am often asked about the behavioral changes that an individual may experience after a traumatic brain injury (TBI). The following article, written by Beverly Sharifian, MA, APCC, provides an excellent overview of this topic and is well worth the read for those who are interested.

Behavioral Changes After a Traumatic Brain Injury

In a previous blog post, I discussed the emotional changes that may result from traumatic brain injury (TBI). Another consequence of TBI that patients may not recognize in themselves are behavioral changes. It is crucial that loved ones pay attention to shifts in behavior in order to provide support and connect patients with the care they need. It is important to note that behavioral changes resulting from brain injury can vary significantly, given that no two brain injuries are identical. In this post, I outline several changes that survivors and their loved ones or caregivers may benefit from understanding.

Changes in Personality After a TBI

Brain injury survivors may display the same personality traits as prior to their injury; however, these traits may be amplified. For instance, an individual who was calm and not easily excitable prior to their brain injury may come across as apathetic or aloof post-injury. There may even be instances where the individual displays traits that are conflicting with their pre-injury temperament, as in the case of someone who was demure but becomes highly outspoken and outgoing. Regardless of the type of personality change, it can be challenging for the individual to accept or even acknowledge. Increased understanding and acceptance from loved ones and friends is imperative to adapting to changes in personality. Making negative comments or judgments about how different the individual's personality is can be detrimental to their emotional and mental well-being.

Executive Functions & Memory Changes Impacting Behavior

In a blog post about the importance of routines and TBI, I described executive functions as higher-order cognitive tasks, which include planning, attention, problem-solving, working memory, emotional self-regulation, initiation and inhibition of behavior. Below I have outlined the ways in which impaired cognitive functions, in particular, the executive functions, may impact behavior.

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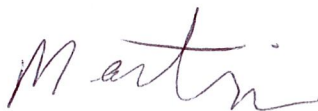
- **Impulsivity:** Reduced control over the initiation and inhibition of behaviors can lead to impulsivity. Brain injury survivors, particularly those who have experienced frontal lobe injuries, may engage in more risky activities without considering the consequences. Such activities may include impulsive spending or reckless driving to name some examples. The individual may also be more willing to speak out on things that others might choose to filter and make crude, hurtful, or inappropriate remarks. Inappropriate remarks or behaviors may even be sexual in nature. Angry outbursts can also be a hallmark of impulsivity, even if this was not at all part of the individual's temperament prior to the injury. It is important to understand that brain injury survivors do not have control over these behaviors but can be provided with tools to manage them. These tools may include thoughtful feedback, practicing appropriate social skills, as well as implementing cues that indicate the individual should reflect on their actions in the moment.
- **Mental Flexibility:** Mental flexibility can be compromised as a result of brain injury. TBI survivors may be more rigid in their thinking. In other words, they may have difficulty adapting to changes that arise from situations or their environment. Generally, people can modify their thoughts and/or actions to adapt to unforeseen changes; however, this can be particularly taxing on those dealing with TBI. Survivors may also have diminished ability to see more than one solution to a problem. It is crucial to acknowledge that these reactions to a lack of structure and predictability are not a desire to be "difficult" or "stubborn" on the part of the injured person. Sometimes perseveration, which can be described as the repetition of thoughts, behaviors, or statements, may also be prevalent. Although individuals with TBI may become aware of perseverative behaviors, they may not be able to cease them on demand. Patience, the use of cues, and encouraging task switching is essential when dealing with this particular symptom.
- **Memory and Concentration:** It is common for TBI survivors to experience memory deficits. In some instances, they will not be able to remember periods of time, particularly those that occur post-injury. It is common for short-term memory to be adversely affected, making learning new concepts a major challenge. Compensatory strategies, such as writing things down, repetition, experiential learning, and maintaining routine/structure, can address memory deficits. Individuals who have suffered a brain injury may be more prone to distractibility, which may manifest as having difficulty focusing on more than one task or maintaining focus during a conversation. This may also impact ability to learn new concepts or remember details. Loved ones should be patient and understanding, creating an environment that seeks to reduce distractions, prevent overstimulation, and enhance memory cues.



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While this list is not exhaustive, it certainly provides an overview of the many changes that can occur after a traumatic brain injury. Individuals who have experienced a TBI, along with their loved ones, must be open to ongoing learning in order to maximize potential for rehabilitation and to manage adapting to changes. Decreased levels of insight and self-awareness that often accompany a TBI can make behavioral changes exceptionally difficult to address. The clinicians at Segel Psychological Center are equipped with the skills and training to promote insight, improve optimism and self-esteem, and provide a sense of control over what can feel like an overwhelming journey for patients and family members alike. We aim to foster growth and self-empowerment by educating patients and their families, while maintaining an empathetic approach that incorporates to unique changes faced by each individual.

If you have any questions regarding your client's needs, please do not hesitate to contact me.



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