

## NEUROBEHAVIORAL CHALLENGES FOLLOWING BRAIN INJURY

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### Cognitive / Physical Changes

- Poor attention span
- Memory disturbance
- Language impairment
- Executive dysfunction
- Intellectual loss
- Impaired mental flexibility
- Sleep disturbance
- Headaches
- Visual problems
- Dizziness/Vertigo
- Seizures

### Cognitive Impairments Affect the Ability to:

- Pay attention to incoming sensory information
- Organize, identify, and understand that information
- Remember things
- Make decisions
- Solve problems
- Initiate an activity, or stop it once started

### Emotional / Behavioral Changes

- Irritability
- Rage
- Depression
- Anxiety
- Agitation
- Disinhibition
- Apathy
- Impulsivity
- Self-centeredness
- Poor self-awareness

### Behavioral Impairments Affect the Ability to:

- Understand the impact of behavior on others
- Self-monitor behavior
- Change behavior in response to feedback and/or consequences
- Participate in treatment programs

## **What Does Someone With Neurobehavioral Challenges Do?**

- Become easily frustrated or angered
- Refuse or resist treatment or therapy
- Elope
- Behave impatiently
- Destroy property
- Exhibit verbal or physical aggression (e.g., yelling, swearing, hitting, spitting)
- Make bad or questionable decisions

## **What About Kids?**

- Common deficits after brain injury include higher level thinking skills (e.g. judgment and reasoning), so it may be years before a child's deficits become apparent.
- Children who sustain TBI at a young age have little prior knowledge and/or fewer life experiences to draw upon to support their recovery.
- Up to half of the kids who have a brain injury are at risk for behavioral problems, which can show up immediately or after several years after injury, and often persist or worsen with time.
- When controlling for other variables among children with service needs, those with mild TBI were more likely to have unmet needs than those with moderate to severe TBI.

## **Intersections of Brain Injury and Behavioral Challenges in Other Populations**

- Domestic Violence:
  - As many as 23 million women in the US have experienced partner assault and live with brain injury.
  - VDH/BIAV Screening: 76% screened positive; of those, 25% had more than 6 injuries.
- Homelessness
  - In individuals with TBI, 70% had their first brain injury before they became homeless
  - In a study of homeless veterans, 65% of participants reported a history of head trauma
  - The lifetime prevalence of any severity of TBI in homeless and marginally housed individuals was 53.1 %, compared to 2% in the general population.

- Justice Involved
  - In a Virginia study, 53% of children remanded in the juvenile justice system over an 18 mo. period screened positive for brain injury.
  - Incarcerated individuals are 7 times more likely to have experienced a brain injury than the general population.
- Behavioral Health
  - Compared with the general population, patients with TBI have increased incidence of depressive disorder, anxiety disorder, and Post-Traumatic Stress Disorder (PTSD); depressive disorders are likely to be chronic and persistent
  - Among veterans with TBI, depression was the most prevalent psychiatric comorbidity followed by generalized anxiety disorder...far outpacing PTSD.
  - Substance Misuse:
    - Complicated by pain, memory problems, impulsivity
    - Children with TBI before the age 5 are nearly 4 times more likely to develop a substance use disorder.
    - Persons with TBI were 11 times more likely to die of overdose than the non-brain injured population

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