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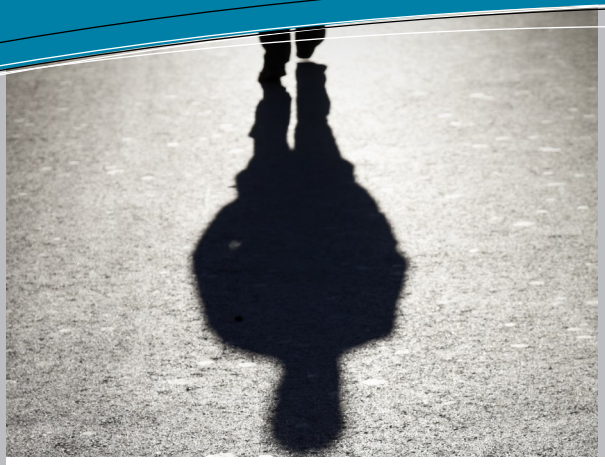

Traumatic Brain Injury and the Criminal Justice System: Impacts and Best Practices

Inside

What is Traumatic Brain Injury (TBI)?

Traumatic brain injury (TBI) is currently a leading cause of death and disability in young adults in North America. Increasing attention is being paid to the relationship between TBI and violence and victimization, with evidence indicating that the prevalence of TBI is higher in incarcerated populations than in non-incarcerated populations.

What is TBI?

TBI is damage to the brain that falls under the broader category of acquired brain injury. Acquired brain injury includes TBI and non-TBI brain injury. TBI is a brain injury sustained through an external force, most commonly through falls, motor vehicle accidents, being struck by an object or a person, or playing sports. Non-TBI brain injuries occur as a result of disease or illness with an onset after birth, such as strokes, tumors, infections or other organic causes.

Admissions to hospital as a result of TBI is most common among children and youth (ages 0-19), followed by individuals in older adulthood (60 years and older), and is more likely to affect men. The exact definition of TBI and its severity is currently under debate among health professionals. What is known is that TBI can range in severity from mild to severe.

"The prevalence of TBI is higher in incarcerated populations than in non-incarcerated populations"

Mild TBI can include a loss of consciousness for up to 30 minutes, amnesia, trouble focusing and any other alterations to the mental state immediately after the injury.

More severe TBI can include minutes to hours of loss of consciousness, persistent amnesia, and difficulty responding to external stimuli following the injury, among other symptoms. Mild TBI accounts for approximately 80% of all TBI and can be particularly disabling due to its 'invisible' nature. This means that mild TBI injury does not generally appear on computerized or physical scans but is identified through psychological and cognitive testing.

Resources

1. Canadian Institute for Health Information. (2006). Head injuries in Canada: A decade of change (1994-1995 to 2003-2004). Canadian Institute for Health Information: Ottawa.

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4. Schofield, P.W., Butler, T.G., Hollis, S.J., Smith, N.E., Lee, S.J., & Kelso, W.M. (2006). Traumatic brain injury among Australian prisoners: rates, recurrence, and sequelae. Brain Inj. 20, 499-506.

5. Shiroma, E.J., Pickelsimer, E.E., Ferguson, P.L., Gebregziabher, M., Lattimore, P.K., Nicholas, J.S., Dukes, T., & Hunt, K.J. (2010). Association of medically attended traumatic brain injury and in-person behavioural infractions: a statewide longitudinal study. J. Correct Health Care, 16, 273-286.

6. Colantonio, A., Stamenova, V., Abramowitz, C., Clarke, D., & Christensen, B. (2007). Brain injury in a forensic psychiatry population. Brain Inj., 21, 1353-1360.

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8. Colantonio, A., Kim. H., Allen, S., Asbridge, M., Petgrave, J., & Brochu, S. (2014). Traumatic brain injury and early life experiences among men and women in a prison population. J. Correct. Health Care.

9. Colantonio, A., Saverino, C., Zagorski, B., Swaine, B., Lewko, J., Jaglal, S., & Vernich, L. (2010). Hospitalizations and emergency department visits for TBI in Ontario. The Canadian Journal of Neurological Sciences. 37(6), 783–90.

10. Ontario Brain Injury Association. Online resources, courses and supports. http://obia.ca/

Common Side Effects of TBI

The side effects people experience following a TBI can be physical, psychological and/or neurological.

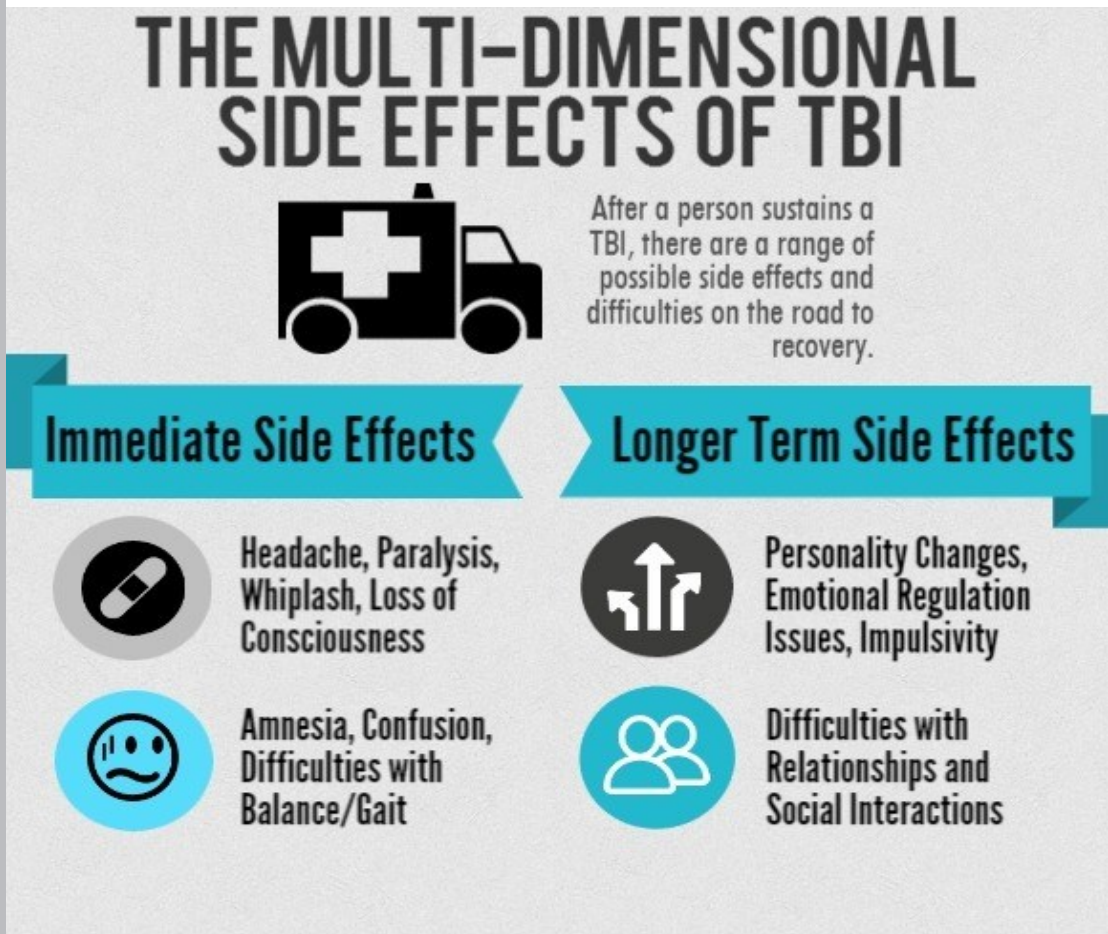
Physical side effects of TBI can include pain disorders, headache, whiplash, paralysis, difficulty with gait/balance, and limited mobility.

Often, people who sustain a TBI report psychological disability as well, and are at increased risk of mood and anxiety disorders, post-traumatic fears, and other related disorders.

The cognitive and neuropsychological side effects can be wide-ranging, from decreased memory, difficulty with executive functioning (task-switching, verbal memory, spatial coordination), and attention, to personality changes and impulsivity. Others report difficulty with social skills and emotional regulation, including an inability to go to work, attend social gatherings, or decrease in relationship satisfaction. It can also have a major impact on one's family.

The duration and nature of potential TBI side effects largely depend on the individual in question. The location on the head and the severity of the TBI, as well as whether or not the individual received treatment, are important determinants of what side effects can occur and their duration.

Many people who sustain a TBI and receive treatment will recover fully and suffer no long-lasting damage. There is, however, a portion of individuals will continue to struggle with emotional, physical, and social problems following injury.



Issues with TBI and the Criminal Justice System

Many risk factors for TBI are also risk factors for involvement in the criminal justice system, such as being young, male, engaging in high-risk behaviours, abusing substances, and having lower educational attainment.

Untreated TBI is more likely to be found in incarcerated individuals from racialized populations, those serving longer sentences, and those serving time for violent crimes. Therefore, it is not surprising that studies show TBI prevalence is higher in incarcerated populations than the general public.

In Canada, two Ontario-specific studies indicate significant rates of TBI in incarcerated populations. It was recently found that approximately one-quarter of patients in a forensic setting in Ontario had histories of TBI. This study's findings suggested that patients with histories of TBI were more likely to be younger at admission, present with substance abuse problems, and have a slightly higher prevalence of assault charges (all levels).

Other research has indicated that the rate of TBI to be as high as 43% in Ontario's correctional facilities, with females in particular more likely to have experienced physical and sexual abuse prior to sustaining a TBI.

Further Canadian research suggests a particular concern with the high prevalence of TBI in homeless populations, a group at high risk of violent victimization and police contact.

Since the research and understanding of TBI is still emerging, TBI is often missed among those it affects. For instance, if a justice professional were to explicitly ask an individual if they ever sustained a brain injury, many would likely answer "no".

When questions instead screen for past blows to head, falls, motor vehicle accidents and incidents of childhood maltreatment, the answers will provide a more accurate picture of the prevalence of TBI. The nature and quality of the assessment is vital when trying to establish TBI histories.

The 'feedback loop' of violent victimization and engaging in violence

Research on victimization suggests that experiencing violence can trigger an individual to engage in violence, which then increases the risk of being further victimized. This is known as a 'feedback loop.' This is consistent with research suggesting incarcerated individuals with histories of TBI are more likely to be involved in violent infractions than those with no TBI.

Damage to the frontal lobe of the brain, which controls impulses, may be especially problematic. Damage to this area can have a significant impact on individual's ability to consider alternative response options, learn from past behaviours, appreciate consequences, and maintain self-control.

The relationship between engaging in violence, being victimized, and sustaining a TBI suggests that TBI may be viewed as a risk factor for individuals involved in the justice system; that is, a TBI may inhibit an individual's ability to reintegrate, and therefore increase the likelihood of recidivism. However, with treatment and/or appropriate screening methods in correctional facilities and community-based services, individuals with TBI may be able to overcome or mitigate any lingering effects.

Fact Sheets are a publication of the John Howard Society of Ontario on a variety of social and criminal justice issues, intended for our front-line John Howard Society staff, community partners and the public. All Fact Sheets are available on our website.

How CJS Professionals Can Assist Individuals with TBI:

- In programming, criminal justice system (CJS) professionals should be prepared to accept that limitations in an individual's capacity resulting from a TBI are frequently mistaken as attitudinal inflexibility, negative outlook and/or oppositional and dismissive temperament. If a client is presenting this type of behaviour, it may be helpful to consider if TBI might explain what is being perceived;
- Set realistic and achievable goals in programming, sentencing or probation that are in line with an individual's cognitive and physical capabilities;
- Any conditions or expectations placed on those with TBI should be reasonable and presented in formats they will be able to recall, such as written down in clear language, since individuals who have sustained a TBI can struggle with following directions, remembering dates or details, recalling places, and can have limited mobility;
- Connect persons with TBI with supportive community programs for help with job needs, relationship maintenance, or physical/occupational/ speech therapy;
- Schedule regular medical care and full neuropsychological assessment to determine physical and rehabilitative needs where possible, if TBI is suspected or determined;
- Build in screening for brain injuries during court-ordered medical assessments or assessments conducted upon admission to secure custody;
- Utilize mental health courts when appropriate for the individual in question, since a history of TBI is associated with an increased risk of mental health issues.

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The John Howard Society Position

Recent research has revealed the widespread prevalence of TBI among correctional populations in Ontario.

While still an emerging field of study, the documented symptoms and long-term effects of TBI are serious: neurological, cognitive, emotional and social capacities are compromised or altered.

Given the incidence of TBI among justice-involved populations and the cyclical nature of violence, it stands to reason that this is an issue that must be taken seriously and responded to appropriately by social, health and justice systems alike.

If properly assessed and identified, people with TBI may have better outcomes when it comes to justice re-involvement and responsiveness to treatment and programming. Ultimately, effective responses to TBI can lead to crime prevention. Promising practices around assessing and treating TBI used in other countries should be explored for application in Ontario.