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At-risk Substance Use following TBI: Exploring the Intersection with Intimate Partner Violence

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https://heller.brandeis.edu/facguide/person.html?emplid=a5995111a8e719c9e1d80246ec17986cc335d929

The relationship between TBI and post-injury substance use

- History of TBI is common among people with SUDs (Substance Use Disorders)
- Substance use is a risk factor for TBI - e.g. through falls, traffic accidents. Post-TBI it can also impede rehabilitation, interfere with brain healing, and increase risk for future TBI.

Opioid use among individuals with TBI - a perfect storm?

https://doi.org/10.1089/neu.2019.6451

Greater exposure to prescription opioids

· Chronic pain is common following TBI (estimated at over 50%). This includes headaches. Acute and chronic pain have been drivers of prescription opioid receipt in the USA.

· In military members and Veterans, TBI rarely occurs in isolation and may occur alongside other chronic pain conditions, and PTSD.

· Increased comorbidities are linked to increased opioid prescription (Adams, Larson, et al., JHTR 2019).

Greater likelihood of progression to long-term opioid use or misuse

· In civilian populations, lifetime history of TBI is also linked to increased risk of opioid use/misuse. A paper using data from the Health & Retirement survey was recently published in the Journal of Neurotrauma (Kumar et al., 2021) which showed that TBI was associated with increased risk for past 3-month prescription opioid use.

· Receiving prescription opioids for a longer days supply increases vulnerability to long-term opioid use. Among Afghanistan/Iraq veterans with a TBI diagnosis

21% filled an opioid prescription and a quarter of that group went on to use opioids long-term.

- Also a risk of concurrent benzodiazepine and opioid use due to mental health comorbidities in veterans, and this can lead to a risk of overdose.
- Cognitive deficits following TBI could be linked to medication mismanagement and poor adherence to prescribed dosing.
- Mood disorders, sleep disturbance, and PTSD could also contribute to risk.

Challenges with SUDs treatment in those with TBI

- Neurobehavioral impairments could make it difficult to engage in treatment. E.g. problems with inhibition, or difficulty engaging in group sessions. This could be misinterpreted as being disruptive or unwilling to engage.
- Co-morbid psychiatric problems.
- Less ability to self-sustain recovery leading to chronic relapse without structure and support.

Adverse consequences associated with opioid use among persons with TBI

- TBI has been linked to non-fatal opioid overdose in post 9/11 veterans (Fonda et al, 2019)
- Veterans using the VHA with TBI are at an increased risk for death by drug overdose (Byers et al, 2019) even when psychiatric conditions are controlled for.

Consequences and recommendations

- The consequences of this vulnerability can be very dire. Exploring non-pharmacological treatments for pain is important.
- Recovery is possible, but awareness of TBI is key to addressing this ‘perfect storm’ of vulnerability and implementing the right support to help with engagement.

How does intimate partner violence (IPV) may relate to the intersection between TBI and substance use?

- There has been a lot of great research demonstrating that women experiencing IPV are at greatly increased risk of TBI. Women who experience IPV are often also at risk of substance use. But the relationship between these health risks are complex and maybe not fully understood yet.
- Substance use is elevated among those with a history of IPV. Psychological trauma is likely to also play a co-morbid role. There are clear links, but disentangling them in future research questions is key.

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Future research questions in this area!

Thoughts from the group

- In practical settings, SUDs are one of the biggest challenges consistently faced by programmes working with survivors of IPV.
- SUDs can be used against IPV survivors by their abusers to manipulate them, withholding substances, making survivors scared to call police, and interfering with SUDs treatment (e.g. preventing survivors from attending recovery meetings etc).
- SUDs treatment is also hard when it is used as self-medication for trauma and this can also add to the difficulty of working with these problems all together.
- Ongoing work looking at TBI from IPV needs to think about trauma and how the issues fit together.
- Lots of the studies in the military are predominantly male samples, and it would be interesting to stratify analyses by g

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