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Understanding Addiction

TRAUMA

Why Trauma Can Lead to Addiction

Childhood trauma increases the risk of addiction in adulthood, but why?

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KEY POINTS

- **There is a robust correlation in the scientific literature between trauma and addiction.**
- **Trauma and chronic stress can lead to a dysregulated stress system, which may make individuals more vulnerable to addictive behaviors.**
- **Trauma can lead to depersonalization and numbness, which may make individuals more vulnerable to addictive behaviors.**
- **A trauma-informed approach is essential for the conceptualization and treatment of addiction.**

Numerous research studies confirm the link between traumatic experiences in childhood and addictive behaviors in adulthood. One of the most notable is the original study of

the first 18 years of life such as physical, emotional, and sexual abuse, neglect, loss of a parent, witnessing intimate partner violence, and living with a family member with a mental illness. The researchers found that as the number of ACEs increased, the risk of alcohol and other drug use in adulthood (Felitti et al., 1998).

After over 20 years of ACEs-related research, the scientific literature presents a robust association between ACE scores and addiction (Zarse et al., 2019). For instance, adults endorsing four or more ACEs are three times more likely to experience alcohol problems in adulthood (Dube et al., 2002), and those endorsing three or more ACEs are more than three times more likely to engage in problem gambling (Poole et al., 2017).

So, what is the link between early trauma and adult addiction? The answer is more complex than you may think.

Effects of Childhood Trauma

Traumatic experiences during childhood can have an array of detrimental effects on an individual depending upon the type of trauma, duration of the traumatic experience, a developmental period in which the trauma occurs, genetic make-up and gender of the individual experiencing the trauma, and the presence or absence of an attuned, supportive caretaker (De Bellis & Zisk, 2014; Levin et al., 2021; Nakazawa, 2015). The specific impact of childhood trauma is nuanced and complex, yet one common outcome is the dysregulation of the stress system (Burke Harris, 2018; Moustafa et al., 2021).

fectively to danger (Moustafa et al., 2021; Nakazawa, 2015; van der Kolk, 2014). When a stressor is identified, the HPA axis (in conjunction with other systems) prepares us for "fight or flight" by causing the secretion of stress hormones such as adrenaline and glucocorticoids. When our stress response is activated, we experience hyperarousal, increased blood pressure, rapid heart rate, fast breathing, and a sense of alarm (Burke Harris, 2018; Nakazawa, 2015; van der Kolk, 2014).

Blood and energy are diverted to those brain structures that can offer immediate assistance, rather than the slower prefrontal cortex, which controls executive functioning and self-regulation (De Bellis & Zisk, 2014). These automatic responses help us respond to danger until the threat is resolved.

There are times, however, when the stress system works against us. Consider situations in which traumatic events are persistent, and the threat is never resolved. Chronic stress resulting from prolonged childhood trauma (e.g., repeated emotional abuse) can exacerbate dysregulation of this stress system. Specifically, the HPA axis becomes chronically activated, leading to elevated stress hormones and accompanying hyperarousal (Nakazawa, 2015). Thus, children who endure prolonged trauma may experience continuous arousal, anxiety, hypervigilance, and alertness (De Bellis & Zisk, 2014).

This dysregulation of the stress system, especially during the developmental years of childhood, can lead to deleterious effects on the immune system, emotion regulation skills, cognitive development, executive functioning and may increase the risk of neurodegenerative diseases (De Bellis & Zisk, 2014; Dunlavey et al., 2018). Moreover, early trauma also can disrupt the regulation of oxytocin (a hormone implicated in attachment and emotional intimacy) and serotonin (a neurotransmitter linked to mood), resulting in attachment issues and feelings of depression (De Ballis & Zisk, 2014).

Association Between Trauma and Addiction

So, what does all of this have to do with addiction?

The primary reason individuals use drugs of abuse is due to their immediate psychological effects. Alcohol and other drugs (in addition to rewarding behaviors) change the way individuals feel by producing pleasure (i.e., positive reinforcement) and reducing dysphoria (i.e., negative reinforcement; Goodman, 2001; Griffiths, 2005).

THE BASICS

For individuals with dysregulated stress systems resulting from trauma, drugs of abuse can offer a reprieve from chronic hyperarousal and anxiety. Alcohol, benzodiazepines, opioids, and cannabis products have calming intoxication effects, some of which even serve to slow down the central nervous system (i.e., depressants). Additionally, gambling (especially with electronic gambling machines) lulls players into a type of trance in which they forget about everything other than the machine (Schull, 2012).

Individuals with trauma histories may be more vulnerable to addiction as a means of regulating their mood, quieting intrusive thoughts, and suppressing the arousal caused by elevated stress hormones (Levin et al., 2021; van der Kolk, 2014). Drugs of abuse or addictive behaviors can facilitate a state of numbness, albeit temporarily (and while causing neuroadaptations that perpetuate, rather than solve, the original issue).

TRAUMA ESSENTIAL READS

The Pain of Vicarious Trauma

Don't Look Up: A Response to Social Trauma

Other individuals who experience trauma may have a different reaction (again, as a result of the type of trauma, duration

protect themselves during prolonged traumatic experiences by dissociating or employing depersonalization strategies (van der Kolk, 2014). These individuals may feel chronically numb, disengaged, and emotionless.

Cocaine, amphetamines, synthetic drugs, and nicotine have stimulating intoxication effects that produce energy and alertness. Additionally, activities such as nonsuicidal self-injury, sex, and gaming may jolt individuals out of states of numbness and allow them to feel some sensation (albeit temporarily and also exacerbating the original issue; van der Kolk, 2014).

Thus, individuals with trauma histories may be more vulnerable to addiction because of the mood-modifying properties of drugs of abuse and rewarding behaviors. Indeed, addictive behaviors may be an individual's best attempt to cope with childhood trauma's biological and neurobiological effects, which could include hyperarousal or depersonalization (Dube

In light of this complex relationship, the conceptualization and treatment of addiction require a trauma-informed perspective to address both the experience of trauma and addictive behaviors concurrently.

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