



ADDICTION

Neurobiology of Addiction

Overview:

Addiction is quite often a significant driver of high frequency access. A basic understanding of the neurobiology of addiction is an essential component of understanding the disease of addiction. This provides the learner with an understanding of the addiction pathways in the brain, helps explain the why of the frustrating and often difficult behaviors, and explains the necessity for treatment using evidenced based medications in conjunction with behavioral therapies. Learning about the neurobiology of addiction can be done through online or in person trainings. You will find several resources in this section that will build your knowledge, awareness and best practice evidenced based care for onboarding this competency.

Core Videos to Watch:

- [Noa Volkow- Why our Brains get Addicted](#) (16 min)
- [National Geographic - This Is What Happens to Your Brain on Opioids](#) (4 min)
- [Raj Mehta - Addiction 101](#) (14 min)
- [Markus Heilig - Addiction in the Age of Brain Science](#) (17 min)

Competency Reflection, Assessment or Demonstration

Now that you have reviewed the materials about addiction neurobiology it is time to reflect on your experiences with this core competency. In the space below write two case examples – Describe a situation you've experienced with an individual who had a substance use disorder and displayed frustrating complex behaviors. Explain how you might perceive the behavior now?

Case Study #1 – The Effective Intervention

What were the characteristics, practices and values that contributed to an effective intervention?

What types of complex behaviors was the individual displaying?

What role did you play? How did you contribute to the success?

What impact or outcome did this have on individuals with complex needs?



Case Study #2 – The ineffective intervention

What were the characteristics, practices and values that contributed to the ineffective intervention?

What types of complex behaviors was the individual displaying?

What role did you play?

What impact did this have on individuals with complex needs?

Reflecting on what you've learned from this module – How would you apply this to have a different interaction?

Additional Resources for Deeper Understanding:

- [Understanding Drug Use and Addiction](#) (National Institute on Drug Abuse)
- [Drugs, Brains, and Behavior: The Science of Addiction](#) (National Institute on Drug Abuse)
- [Facing Addiction in America](#) (Surgeon General's Report on Alcohol, Drugs, and Health) (Chapter 2)