

Craig Strickland, PhD

Owner, Biobehavioral Education and Consultation, LLC

1. Webinar title: Neurobiology of Addiction: Opioids

2. Webinar Description: Opioid use has increased dramatically in the United States and across the globe. It is an issue for entire communities, not just professionals working in addiction medicine. This workshop will look at how opioids affect the human nervous system and human body. Specific pharmacologic interventions, especially methadone and buprenorphine, will be discussed in opioid addiction. Finally, the use of psychopharmacology to treat opioid withdrawal will be discussed.

3. Learning Objectives:

- a) Summarize the biological mechanisms of opioid addiction.
- b) List at least three pharmacological interventions based on the phases of opioid addiction.
- c) List at least three medications which can be used to treat symptoms of opioid withdrawal

4. Content level: Beginner-Advanced

5. Timed Outline:

9:30-9:45 AM	Welcome and overview
9:45-10:30 AM	How opioids affect brain function, emphasis on chemical changes in the brain
10:30-11:15	Pharmacological Interventions for opioid addiction (Part 1)
	Methadone
	Buprenorphine
	Ancillary treatment (anxiety, sleep disruption, etc.)
11:15-11:45	Pharmacological Interventions for opioid addiction (Part 2)
11:45-12:20	Use of Narcan to treat opioid overdose
12:20-12:30	Q/A

6. References:

Gardner, E. (2011) Addiction and brain reward and antireward pathways. *Adv Psychosom Med* 30:22-60. doi: 10.1159/000324065

Medication-assisted treatment (MAT). (2022). <https://www.samhsa.gov/medication-assisted-treatment>

NIDA (2021) Retrieved from <https://nida.nih.gov/publications/drugs-brains-behavior-science-addiction/preface>

Valentino R. and Volkow N. (2018) Untangling the complexity of opioid receptor function. *Neuropsychopharmacology*, 43(13):2514-2520. doi: 10.1038/s41386-018-0225-3

What happens to your brain when you misuse prescription opioids? (n.d.)
<https://teens.drugabuse.gov/what-happens-your-brain-when-you-misuse-prescription-opioids>

Which medications are used to treat opioid withdrawal?
<https://www.withdrawal.org/opiates/medications-used-treat-opioid-withdrawal/>

7. Brief Instructor bio

Dr. Strickland graduated from Bryn Mawr College in with a Doctorate in Psychology and a focus on experimental research and neuroscience. Past positions include a faculty position at the Medical College of Pennsylvania and affiliate faculty positions at Widener University and Springfield College. He currently has guest lecturer privileges at the Bryn Mawr Graduate School of Social Work and Social Research, the Rutgers School of Social Work and an affiliate professor position at Thomas Jefferson University, East Fall Campus in the Community and Trauma Counseling program. Dr. Strickland is the owner of Biobehavioral Education and Consultation, LLC.

8. CV: on file

9. Handouts: To be distributed as needed