

PDH Academy

PO Box 449
Pewaukee, WI 53072
888-564-9098

pdhacademy@gmail.com

Understanding the Neuroscience of Addiction to Provide Effective Treatment

Course Abstract

This course will explain the neurobiology (anatomy terms and definitions) of addiction, as well as the neuroscience (the reward pathway) of addiction. The diagnostic criteria of Substance Use Disorders according to the Diagnostic Statistical Manual (DSM) 5 will be explained. Additionally, the course will provide practical, tangible coping skills to implement with clients. This course is appropriate for professionals who are new to the addictions field, as well as those counselors or therapists without addictions treatment experience. The section explaining the neurobiology of addiction will also prove to be beneficial for more experienced clinicians. Upon completing this course, you are encouraged to continue to build upon your knowledge-base.



"This program is Approved by the National Association of Social Workers (Approval # 886745725-9641) for 6 continuing education contact hours."

Learning Objectives

1. Identify four factors that predispose individuals to addiction.
2. Describe three types of coping styles.
3. Gain awareness about the basic brain anatomy.
4. Understand the basic neuroscience of addiction.
5. Describe adaptive coping skills that could be used to replace drug, alcohol, and other maladaptive coping.
6. Apply Emotional Intelligence and Critical Thinking to assist in recognizing and addressing biases, as well as critically assessing the client needs based on individual client factors.

Timed Agenda/Outline

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| 1. What is addiction? | 20 min |
| a. Societal Stigmas (5 min) | |
| b. Emotional Intelligence (5 min) | |
| c. Critical Thinking (5 min) | |
| d. DSM-5 Criteria for Substance Use Disorders (5 min) | |
| 2. Coping Methods | 45 min |
| a. Action Based Coping (5 min) | |
| b. Emotion Based Coping (5 min) | |
| c. Harmful Coping (5 min) | |
| d. Addiction Timeline (30 min) | |
| 3. Screening Tools (5 min) | 25 min |
| a. CAGE (5 min) | |

- b. Brief Initial Screening Tools (5 min)
 - c. Longer Screening Tools (5 min)
 - d. Behavioral Health Screening Tools (5min)
- 4. Predispositions to Addiction (5 min) 25 min
 - a. Biological (5 Min)
 - b. Psychological (5 min)
 - c. Social/Cultural (5 min)
 - d. Spiritual (5 min)
- 5. Neuroscience of Addiction 115 min
 - a. Chronic Disease (20 min)
 - b. Addiction & Isolation (20 min)
 - c. Brain Anatomy, Terms, And Concepts (30 min)
 - d. Basic Neurobiology & Neuroscience of Addiction (45 min)
- 6. Assessment Considerations (5 min) 20 min
 - a. Person-In-Environment (10 min)
 - a. Childhood
 - b. Current
 - b. Co-occurring Factors (5 min)
- 7. Action-Based and/or Adaptive Coping Skills (5 min) 115 min
 - a. Stress Identification and Management (5 min)
 - a. Deep Breathing (5 min)
 - b. Healthy Distraction & Frontal Lobe Engagement (5 min)
 - c. Mindfulness (5 min)
 - d. Grounding (5 min)
 - e. Daily Gratitude List (5 min)
 - f. Humor (5 min)
 - g. Kindness (5 min)
 - h. Biofeedback Mantra (5 min)
 - i. Stress and Anxiety Management Mantras (5 min)
 - j. Danger Sequence to Counter Stress, Anxiety, and Trauma Responses (10 min)
 - k. Craving Sequence (10 min)
 - l. Grieving Process (5 min)
 - m. Healing Process (5 min)
 - n. Stages of Change (5 min)
 - o. Communication & Boundaries (5 min)
 - p. Sleep Hygiene (10 min)
 - q. Self-Care Tools & Personality (5 min)
 - r. Resources for Self-Care Tools and Adaptive Coping Skills (5 min)

Total Minutes

365 minutes

Delivery Method

Correspondence/internet self-study course, including a provider-graded final exam. To earn continuing education credit for this course, you must achieve a passing score of 80% on the final exam.

Course Author Biography

Jessica Holton, MSW, LCSW, LCAS has nearly two decades of experience and is a private practitioner specializing in treating Trauma & Stress Related Disorders, Anxiety Disorders, and Addictions. She earned her Master of Social Work and became certified in Social Work Practice with the Deaf and Hard of Hearing from East Carolina University. Jessica is active in leadership roles with the National Association of Social Workers (NASW) at the local, state, and national levels (Co-Chair of NASW-NC's Greenville's Local Program Unit from 2005-2012; Elected as NASW-NC's President Elect (2011-2012) and NASW-NC's President (2012-2014); Appointed to NASW's Alcohol, Tobacco and Other Drug (ATOD) Specialty Section Committee as a committee member in 2008, then appointed as the Chair in 2010 to 2016, and recently returned to a committee member. Jessica is involved with Addiction Professionals of North Carolina, as well, in which she was elected as a Member At Large for a three year term (2017 to 2020). Jessica has written many professional newsletter articles, several peer-reviewed journal articles, and has presented nationwide at numerous conferences. She is passionate about learning, sharing her knowledge and elevating her profession. She also received the East Carolina University School of Social Work *Rising Star Alumni Award* in 2012, selected as The Daily Reflector's Mixer Magazines *30 under 30* in 2007, Wilson Resource Center for the Deaf and Hard of Hearing *Community Service Award* in 2005 and the National Association for the Advancement of Educational Research Annual Conference *Award for Service to the Profession 2002 Outstanding Researcher*.

Jessica Holton is not a neuroscientist or neurobiologist; however she is a Licensed Clinical Social Worker and Licensed Clinical Addictions Specialist who has a great deal of respect for neuroscientist and neurobiologist. She is fascinated with learning about the neuroscience of addictions and other emotional and behavioral disorders. As a new clinician, discovering information about the neuroscience of addiction, trauma responses, stress response, et cetera proved to be timely and necessary in providing effective and evidenced-based treatment to the individuals that she treated. She has continued to build her knowledge-base over the years by attending trainings, reading literature (i.e. books, magazine articles and peer-reviewed articles)ⁱ, listening to various TED (Technology, Entertainment, Design) Talks and podcasts, referencing reputable websites and using applications (i.e. 3D Brain, Headspace). Jessica will share her understanding of the basic neuroscience of addiction, both chemical and behavioral. She will also explain suggested adaptive coping skills, which weave in the discussed neuroscience of addiction.

