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Course Title:

Is Addiction Really a "Disease?"

Course Description:

Is addiction a "disease" or a "choice"? This lecture outlines the arguments for and against the conceptualization of addiction as a disease. The most recent neurophysiologic research about addiction is presented, including the five theories currently in use to explain addiction. The connection between this research and the baffling behaviors observed in addicts - behaviors such as of craving, denial and persistent drug use despite negative consequences - is outlined. Finally, the ethical implications of defining addiction as a "disease" are explored, and a new approach to addiction - the "Occupational Model" - is introduced.

Course Outline:

- I. The Debate Continues: Is Addiction Really a "Disease?"
 - a. The Choice Argument
 - b. The Disease Argument

- II. Addiction as a Brain Disease
 - a. The Frontal Cortex
 - b. The Midbrain
 1. Olds and Milner Studies

- III. Addiction as a Hedonic Dysregulation (a Disorder of "Pleasure")
 - a. The "Pleasure" Construct

- IV. The Five Theories of Addiction
 - a. Genetic Vulnerability (Schuckit)
 1. Alcohol: "Low Responders" vs "High Responders"
 - b. Incentive-Sensitization (Robinson and Berridge)
 1. Dopamine: Drug "Wanting" vs Drug "Liking"
 2. Dopamine-releasing Chemicals
 3. Dopamine-releasing Behaviors (The Process Addictions)
 - c. Pathology of Memory and Learning (Hyman and Nestler, Everitt and Robbins)
 1. Reward Learning and Memory Consolidation
 2. Glutamate: Drug Memories, Cues and Drug Seeking
 - d. Stress-induced Allostasis (Koob and LeMoal)
 1. Stress, Corticotropin Releasing Factor, and the Dopamine System
 - e. Pathology of Motivation and Choice (Kalivas and Volkow)

1. Drug Seeking and the Prefrontal Cortex
2. Why the "Choice Argument" fails: The Phenomenon of Craving

III. Addiction: The Disease Model and Beyond

- a. Seeing Addiction in Two Parts
 1. Midbrain: the drug takes on survival salience
 2. MFB/Frontal Cortex: the drug takes on personal meaning
- b. The Two Tasks of Addiction Treatment
 1. stress management and craving
 2. emotional meaning as leverage against the drug
- c. The Division of Labor: why A.A. works in ways medicines alone cannot
- d. Addiction Fits the "Disease Model"
 1. Implications of fitting addiction to the Disease Model
 2. Punishment vs "Persistent Use Despite Negative Consequences"
- e. A Group of Addicts we don't punish: The Pilot Cohort

Course Objectives:

At the conclusion of the morning session, participants will be able to:

1. Identify the arguments for and against the conceptualization of addiction as a "disease."
2. Describe the current Dopamine Hypothesis/Stress-induced Hedonic Dysregulation Theory currently used in Addiction Medicine, and understand how the theory relates to the symptoms of Substance Dependence as described in the DSM-IV.
3. Recognize the role of dopamine-releasing behaviors (Process Addictions) in the dynamic of stress, craving and relapse.