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Retraining addiction: Substance abuse treatment strategies and recommendations for patients with neuropsychological deficits

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In 2012, an estimated 23.9 million Americans aged 12 and above were current illicit drug users, representing 9.2% of the U.S population. Approximately 12.3 million adults were substance-dependent. These rates are concerning, as research has repeatedly revealed substances' adverse neuroanatomical and neuropsychological effects. Among other detriments, studies have shown widespread atrophy with alcohol abuse, decreased white matter volume with heroin and cannabis abuse, and decreased gray matter volume with cocaine abuse. These effects are believed to be associated with neurobehavioral consequences such as poor attention and executive function with alcohol abuse, poor memory with marijuana abuse, and attention, executive function, and verbal memory deficits with cocaine use. Impairments such as these can be substantial obstacles for substance abuse treatment, as cognitively impaired individuals tend to complete treatment less often, display poorer coping skills, and experience poorer therapeutic processes as compared to unimpaired individuals. Fortunately, research points toward anatomical and functional recovery for those who abstain from substances for prolonged periods. Cocaine abstinence has been associated with less pronounced subcortical deficits, alcohol-abstinent patients have been found to recover learning and memory skills, and abstinence from methamphetamines has been associated with improved attention and cognitive flexibility. Most treatment programs fail to guide substance abusers toward these recovery gains due to their reliance on traditional models which require effortful executive function and behavioral flexibility. This poster presentation will summarize and offer evidence-based substance abuse treatment strategies and recommendations as adapted for use with individuals suffering from concomitant neuropsychological impairments.

Biography

Frederick Hives II is a 4th year Doctoral student in John F. Kennedy University's clinical psychology program in Pleasant Hill, California. He was trained in the San Francisco area with the Solano County Jail, California Department of Rehabilitation, and Laguna Honda Hospital. He will begin his pre-doctoral internship with California Department of State Hospitals-Vacaville's APA-accredited program this September. He has served as Student Representative on the board of the Northern California Neuropsychology Forum since September 2013 and presented at the Forensic Mental Health Association of California and National Multicultural Conference and Summit. His interests include psychiatric and forensic neuropsychology.

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