

In the past 30 years, Opioid Use Disorder (OUD) has become a widespread health issue in the United States of America. In 2019, 1.6 million people in the U.S. were diagnosed with Opioid Use Disorder. Of these people diagnosed with Opioid Use Disorder, 39.0% were also reported to suffer from a mental illness. Patients with a diagnosed mental and substance use disorder are more likely to get opioid prescriptions, despite their increased risk of addiction and overdose, affecting their ability to complete Opioid Use Disorder treatment. This study examined the effectiveness of various Opioid Use Disorder rehabilitation services on the completion of treatment for individuals who have co-occurring mental and substance use disorders in addition to Opioid Use Disorder. Using the Substance Abuse and Mental Health Services Administration (SAMHSA) discharge data from 2021, this study determined if there is a causal relationship between different types of rehabilitation and the Opioid Use Disorder treatment completion. First, the data was processed to remove insignificant and unknown data points. Using statistical models from causal inference, the data was analyzed to select appropriate features used for matching and to predict treatment completion outcomes based on the covariates. This information was used to create causal conclusions between eight different types of services and the completion of Opioid Use Disorder treatment. This study allows for a better understanding of treatment for individuals with Opioid Use Disorder and co-occurring mental and substance use disorders.