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The Impact of COVID-19 on admission rates for individuals with substance use disorders

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DATA CLEAR PROJECT PROPOSAL

Date: 4/22/2020

Title: The Impact of COVID-19 on admission rates for individuals with substance use disorders

Resident names and (respective programs): Devin McDonald (Psychiatry GME), Linda Zhang (Psychiatry GME)

Core Faculty Mentor(s) and (respective programs): Gerald DeMasters (Psychiatry GME core faculty)

Background & Significance (why this issue is important and what gap will be filled):

We predict that the COVID-19 pandemic will have a negative impact on worldwide mental health. A complete understanding of this phenomenon is likely to take years to decades after the end of the pandemic. One unfortunate consequence of social distancing recommendations has been the closure of social resources many individuals with substance use rely on. This study will aim to observe the effect of the pandemic and subsequent social distancing recommendations on individuals with substance use disorders (SUD) by change in admission rates from the year before the pandemic to this year. While these results will not change social distancing recommendations, it may affect considerations in the future to make arrangements for these individuals.

What is already known on the issue and how your project will differ from what has already been done (include citations where appropriate)?

Limited data exists regarding the utilization of mental health care during the COVID-19 pandemic. Some literature have suggested trends in mental health care needs during the pandemic however, these studies were focused specifically on the Chinese population and healthcare system. Researchers have cited data on the mental health impact in China during previous outbreaks such as MERS and SARS when discussing the trends in mental health care needs during the COVID-19 pandemic. However an outbreak of this magnitude is a newer phenomenon to the United States. Some of the initial data on COVID19's impact in the United States was collected with surveys to the general population while our study aims to identify trends in utilization of intensive inpatient psychiatric care in those with substance use disorders. We hypothesize that the COVID-19 pandemic will significantly and negatively impact the mental health of individuals with substance use disorders leading to an increase in admissions to inpatient psychiatric units for substance use care.

Wang et. al. Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *Int. J. Environ. Res. Public Health* **2020**, *17*(5), 1729; <https://doi.org/10.3390/ijerph17051729>
Carlos Kennedy Tavares *Psychiatry Research* Volume 287, May 2020, 112915.

Xiang et. al. Timely Healthcare for the 2019 novel Coronavirus outbreak is urgently needed. www.thelancet.com/psychiatry Vol 7 March 2020.

Research Question:

Will there be an increase in proportion of alcohol and other substance use disorder admissions compared to total psychiatric hospitalizations during the coronavirus pandemic?

Hypothesis (i.e., what you predict to find):

We hypothesize that there will be a proportional increase in admissions to the behavioral health inpatient unit for alcohol and other substance use related disorders during the coronavirus pandemic.

Study Design/Methods: Please include ICD-9/ICD-10 Codes, Procedure Codes, Lab-mnemonics, and Vitals**Selection of Patients:**

All individuals admitted to an HCA Healthcare affiliated Capital Division inpatient behavioral health unit from time frames of Feb-May 2019 and Feb-May 2020 will be included. Patients with a top 3 diagnosis of acute alcohol intoxication and/or alcohol use disorder, cocaine use disorder, opioid use disorder, stimulant/methamphetamine use disorder, hallucinogen use disorder, and other psychoactive substance use disorder (ICD10 codes below) will be selected to determine the change in proportion of substance use diagnoses versus total diagnoses between the two years. Retrospective data will be collected by HCA data analyst.

Predictor variable(s): Time of admission (prior to vs after the novel COVID-19 pandemic), age, race, sex, homelessness. Note- The time of admission can be coded as 1 and 2 instead of providing actual dates in order to meet safe-harbor requirements.

Control variable(s): HCA Healthcare Capital Division Behavioral Health facilities, ICD10 codes

Outcome variable(s):

Number of admissions for acute alcohol detox and other substance use related disorders Feb-May 2019; total number of admissions Feb-May 2019; number of admissions for acute alcohol detox and other substance use related disorders Feb-May 2020; total number of admissions Feb-May 2020.

Exclusion criteria if appropriate: N/A

F10 Alcohol related disorders with any additional modifiers

F11 Opioid related disorders with any additional modifiers

F12 Cannabis related disorders with any additional modifiers

F13 Sedative, hypnotic, or anxiolytic related disorders with any additional modifiers

F14 Cocaine related disorders with any additional modifiers

F15 Other stimulant related disorders with any additional modifiers

F16 Hallucinogen related disorders with any additional modifiers


F19 Other psychoactive substance related disorders with any additional modifiers

Proposed Analyses: Descriptive statistics to summarize substance use disorder admissions before and during COVID-19 outbreak. Chi-square tests will be conducted to compare change in proportion of substance abuse disorder admissions before and during COVID-19.

Where do you plan on sharing your results?

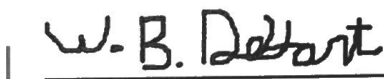
In a journal related to psychiatry or substance use, depending on results

Program Director Approval



Date: 5/1/2020

Division Director Approval



DATE: 04/28/2020