Hospitalization of COVID-19 patients comorbid with substance user disorders and affective disorders

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Statement of the Problem: Little is known about the outcomes for COVID-19 infection in individuals comorbid with substance use disorder (SUD) and affective disorder (AD) within the US.

Objective: This study examines intensive care unit (ICU) admission, emergency room (ER) admission, and ventilator use within 1 month of COVID-19 diagnosis among patients with SUD, AD, both SUD/AD, and neither SUD nor AD.

Methods: IQVIA's medical claims data (Dx) represent the pre-adjudicated claims generated by office-based physicians, specialists, nurse practitioners and physician assistants. It cover more than 205 million patients per year. COVID-19, SUD, and AD diagnoses were identified using ICD-10 codes. Only SUD and AD diagnoses recorded between January 2019 and a patient's COVID-19 diagnosis were considered. ICU admission, ER admission, and ventilator use were identified using CPT codes, and only events that occurred within 1 month after a patient's COVID-19 diagnosis were considered. Chi-square tests and logistic regression models examined the outcomes among patients with and without SUD/AD.

Results: 6,293,439 patients were diagnosed with COVID-19. Of these patients, 245,241 had SUD only, 568,519 AD only, 129,202 both SUD/AD. Compared to those with neither SUD nor AD, patients with SUD only were more likely to be male while patients with AD only and both SUD/AD were more likely to be female ($p<.0001$). Compared to patients with neither comorbidity, those with SUD and/or AD have 31-68% increased odds of ICU admission ($p<.0001$), 23-210% increased odds of ER admission ($p<.0001$), and 36-67% increased odds of ventilator use ($p<.0001$) within one month of COVID-19 diagnosis.

Conclusion & Significance: Current findings indicate that individuals with SUD and AD have increased risk of adverse outcomes associated with COVID-19, highlighting the need to screen and treat individuals with SUD/AD as part of the strategy to control the pandemic.

Biography

Grace Lee is an epidemiologist with over 10 years of experience in psychiatry, addiction medicine, clinical quality measures, criminal justice, military health, clinical trials, monitoring and evaluation, education, childhood obesity, data analysis, and scientific and technical writing. PhD in Public Health from Johns Hopkins Bloomberg School of Public Health.