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Impact of COVID-19 Pandemic on Pediatric Substance Abuse Related Presentations to Emergency Services Between July 2019 and March 2022

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1 Providing Comprehensive Services to Treat Patients and the Inpatient Psychiatric Bed Crisis

Anilla Del Fabbro, Natalie Cagle, Rachel Martin, Sulaimon Bakre

Objectives: A growing mental health crisis and a shortage of inpatient psychiatric beds have resulted in a surge of patients, boarded, in emergency departments awaiting acute inpatient psychiatric placement. This delays care and causes a further burden on already stressed emergency services. In June 2020, the Centers for Disease Control and Prevention (CDC) reported an increased incidence of anxiety and depressive disorders since March of 2020, in comparison to pre-pandemic data. This has further exacerbated the shortage of psychiatric beds nationwide. In addition, staff shortages at state psychiatric hospitals in the Commonwealth of Virginia led to temporary closures to admissions. State facilities in VA provide care for our most vulnerable population, including (involuntary) patients on a temporary detention order (TDO). Carilion Clinic implemented the Comprehensive Psychiatric Emergency Program (CPEP) in August 2020 with the goal of early identification and robust treatment of psychiatric patients while in the ED. Since implementation of the CPEP, providers have been able to redirect patients away from burdened state psychiatric facilities by rapid stabilization of patients in the ED. Patients were able to step down to a less restrictive environment, often no longer meeting criteria for TDO. This study aims to assess the rate of TDO releases pre- and post-implementation of the CPEP at Carilion Clinic.

Methods: A pilot program was launched in August 2020 at Carilion Roanoke Memorial Hospital through a collaboration of the Departments of Emergency Medicine and Psychiatry. The staff was comprised of a psychiatrist, a psychiatric nurse practitioner, and a social worker. Data was collected from May 2020 to June 2021 from the Epic electronic medical record and included all patients in the ED on a TDO, ages six and above. Patients who no longer met criteria for a TDO were released from involuntary status and either redirected as a voluntary patient to an inpatient psychiatric unit or discharged to the community. The rate of TDO releases three months prior to CPEP implementation was assessed and compared to the TDO release rate post-CPEP implementation.

Results: Prior to CPEP implementation, the TDO release rate was 7%, amounting to four patients released from a TDO per month. After implementation of CPEP, the TDO release rate increased to 19%, equating to thirteen patients released from a TDO per month during the pilot period. This led to a decrease in the number of patients that would have previously been admitted to a state psychiatric facility. Patients who benefitted from implementation of the CPEP were those with conditions in the following categories: chronic mental illness (32%),

individual/family crisis (24%), neurocognitive disorders (20%), substance use disorder (18%), autism spectrum disorders and intellectual/developmental disabilities (6%).

Conclusion/Implications: Implementation of the Comprehensive Psychiatric Emergency Program (CPEP) in Carilion Clinic, Emergency Department was successful in reducing the number of state psychiatric admissions by redirecting 11% more involuntary patients to voluntary status. The results of this study highlight the benefits of having in-house psychiatry teams dedicated to early triage, rapid treatment, and comprehensive case management for psychiatric patients in the emergency department. References- CDC, National Center for Health Statistics. Indicators of anxiety or depression based on reported frequency of symptoms during the last 7 days. Household Pulse Survey. Atlanta, GA: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2020. <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>.

2 Impact of COVID-19 Pandemic on Pediatric Substance Abuse Related Presentations to Emergency Services Between July 2019 and March 2022

Rhoshel K. Lenroot, Chandra E. Cullen, Deirdre Hill, Anju C. Jaiswal, David Lardier, Kristina S. Sower, Kimothi N. Cain, Harry E. Snow, Mauricio Tohen

Introduction: The impact of the COVID-19 pandemic on substance use in children and adolescents is not well understood. Although lockdowns have largely ended, there is concern regarding longer time effects on development. Presentations to emergency department (ED) settings may provide an indicator of substance use associated with a relatively high level of acuity. The aim of the current study is to describe trends in pediatric (0-17yo) presentations associated with substance use diagnoses to emergency services at an academic center in a Southwestern state since onset of the COVID-19 pandemic and how these compare to rates prior to onset of COVID pandemic.

Methods: Retrospective chart review of electronic medical record data from July 2019-March 2022. Data included all visits by pediatric subjects (0-17yo) associated with a substance-use related diagnosis to acute care settings within the University of New Mexico Health Sciences Center system. Data is summarized within 3-month quarters (Jan-Mar, April-June, July-Sept, Oct-Dec) to allow comparison of numbers presenting during similar periods of year. March 2020 was when broad lockdowns were started in New Mexico. Variables included total number of visits, sex (M,F), race, ethnicity (Hispanic/Non-Hispanic), age range (0-9, 10-14, 15-17yo), insurance (private, Medicaid, other government, self-pay/other), whether seen by mental health provider, ED length

of stay (LOS) (1 hour or less, 2-5 hours, 6 hours or more), and substance-related diagnosis. Variables are compared between each quarter using a generalized linear model.

Results: There were 938 visits total during this time (467 male, 467 females, 4 missing). 598 were Hispanic, 274 non-Hispanic White, 147 Native American, 45 Black, 8 Asian, 4 NH/PI, and 146 declined or unknown. The vast majority of visits were in adolescents 15-17yrs old. The most common diagnosis was cannabis-related disorder at 306 encounters, followed by alcohol n=303. The trajectory of visits from July 2019-March 2022 showed a decline from 98 visits in July-Sept 2019 to 51 visits in April-June 2020, followed by increase to 102 visits in Jan-Mar 2022. Comparisons of equivalent quarters for each year were as follows: Q1 (2020 n=71; 2021 n=71, 2022 n=102). Q2 (2020 n=51; 2021 n=81). Q3 (2019 n=98; 2020 n=75; 2021 n=107, 2019-2021). Q4 (2019 n=90; 2020 n=57; 2021 n=111). There were fewer female visits prior to onset of COVID-19 (n=40 in females vs n=58 in males in 2019 Q3) and decreased further early in the pandemic (N=29 vs 46 in males in 2020 Q3), but then rose more rapidly than males (n=59 female, n=48 male, 2021 Q3). The proportion of visits with LOS 5 hours in Q3 initially decreased from 27.8% of visits(n=25) in 2019 to 19.3% (n=11) in 2020, then increased significantly to 35.1% in 2021 (n=39). There was not a significant effect of other variables.

Conclusions: The COVID-19 pandemic resulted in a rapid decrease in ED substance-abuse pediatric presentations, which rebounded to levels greater than pre-COVID. Females increased more than males. Visits with longer LOS increased during later pandemic. Future work includes understanding how mental health comorbidities and other socioeconomic stressors may relate to these findings.

3 Patient-specific Characteristics that Influence a Psychiatrist, Perception of a Patient, Risk for Attempting Suicide in the Emergency Department

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Background: There is evidence that factors such as unstable housing, substance use, and past psychiatric history may elevate one, lifetime risk of suicidality. However, data is limited regarding how these factors relate to the perception of acute risk of suicidality. Thus, psychiatrists may consider the presence of known chronic risk factors when assessing a patient, acute suicide risk level. It is thus possible that chronic risk level may be conflated with acute risk level. At our institution, patients in the Emergency Department (ED) are considered to be at high risk for attempting suicide in the hospital if they score positively on a suicide screening tool or

if an ED physician assesses them as high-risk. Those who are considered high-risk are assigned a one-to-one safety assistant for constant visual observation. All patients assigned a safety assistant for suicidality are then formally evaluated by the psychiatric consultation team, who assess the patient, level of acute suicide risk and recommend whether to continue or discontinue the safety assistant. Notably, there is limited data on which patient-specific variables may influence a psychiatrist, clinical assessment of acute suicide risk in the ED.

Objective: We sought to measure how certain patient-specific variables influence a psychiatrist, assessment of acute suicide risk level. We therefore evaluated how each of these variables might affect a psychiatrist, decision to continue or discontinue an assigned safety assistant.

Method: This was a retrospective study examining 218 patient encounters for whom a one-to-one safety assistant was ordered for suicidality. We analyzed patients, 1) demographic data such as age, race, housing situation, and socioeconomic status; 2) ED workup including urine drug screen results and blood alcohol level; and 3) past psychiatric history such as prior psychiatric hospitalization(s), suicide attempt(s), and presence of outpatient mental health care. We used a multivariate logistical regression to analyze how each of these variables contributed to a psychiatrist, decision to continue or discontinue the assigned safety assistant.

Results: Female sex and positive blood alcohol levels resulted in increased likelihood that the psychiatric consultation team recommended discontinuing a safety assistant. The presence of at least one past suicide attempt resulted in increased likelihood that the psychiatric consult team recommended continuing a safety assistant.

Conclusion: The results suggest that past suicide attempt(s) were directly correlated with a psychiatrist, perception of acute suicide risk. The presence of ethanol, on the other hand, was inversely correlated with a psychiatrist, perception of acute suicide risk, contrasting existing data that supports ethanol use as a chronic risk factor for suicide. We propose several theories for this finding, including clinician distrust of an intoxicated patients, provided history and symptoms, confirmation bias favoring discharge over prolonging care via ED observation, and the disinhibitory effects of ethanol resulting in statements that may not reflect true intentions. However, further data is required to explain this discrepancy.

4 To Screen, or Not to Screen, that is Depression

Alexa Mazur, Harrison Constantino, Kathryn Dover, Prentice Tom, Michael P. Wilson, Ronald G. Thompson

Introduction: Universal mental health screening has been shown to effectively identify people with previously