

addition, the literature lacks best practices for de-escalation techniques backed by evidence. Restraint and seclusion should be used as a last resort due to inherent risk associated with the intervention.

## Overcoming the Challenges of the Mental Health Care System in United States in the Aftermath of COVID-19

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### Abstract

**Study Objective(s).** The impact of pandemic events such as the coronavirus (COVID-19) pandemic led to an economic crisis worldwide as well as an increase of mental health problems. In the United States, the gaps in the mental health care system struggle to meet the needs of vulnerable populations and have caused a major public health problem. We aim to increase the awareness of health care professionals, psychiatrists, and policy makers regarding failures and gaps in the mental health care system and suggest new ideas to overcome the growing burden of mental disorders.

**Method.** We utilized data from PubMed, Science Direct, Cochrane, Embase and Clinicaltrials.gov databases to analyze available information on the US mental health system. We included any relevant articles addressing the prevalence of mental diseases, disparities and the gaps for an accessible and affordable mental health system, as well as the psychological impact of COVID-19 pandemic.

**Keywords.** 'COVID-19', 'Coronavirus', 'SARS-CoV-2', 'mental health', 'Health, Mental' were used.

**Results.** Following scoping review of several studies we noticed that while prevalence of mental health problems in the US varies between states and socio-demographic groups, it is among the top 10 causes of premature death and disability in adults. We noticed that mental health problems are currently one of the costliest public health issues in the healthcare system. Tracking Poll from one of the studies in our scoping review suggested that financial inequities are magnified by the COVID-19 pandemic and that psychological distress was substantially larger among respondents with lower income (33%), Hispanics (28%) and Blacks (26%). Furthermore, in another poll 62% of US population are shown to be anxious due to COVID-19. We observed that the prevalence of reported symptoms of psychological distress among US adults increased when compared to 2018. Common barriers such as failure of accessibility, insufficient funding, insufficient psychiatric beds, limited insurance access and economic burden, clinician

shortages, fragmented care, insufficient mental health care policies and insufficient education and awareness about mental illness become more prominent during the COVID-19 pandemic era.

**Conclusions.** The impact of COVID-19 on mental health is alarming, which affects public health and has made the health care system more vulnerable. Pandemic events not only cause acute negative impact, they also result in long-lasting health problems, isolation and stigma. The COVID-19 pandemic threatens the mental health of the population and its long-term consequences can lead to a secondary pandemic. The outcomes of the COVID-19 pandemic on mental health emphasize the need for policies and strategies to support and strengthen a concerted effort to address its burden on the US mental health care system. In addition, it magnifies the need for high quality and well-funded research for future pandemics.

## Methylphenidate-Induced Chorea Due to Possible Cytochrome P450 Metabolism Heterogeneity - A Rare Case

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### Abstract

**Background.** Chorea is defined as a hyperactive movement disorder associated with involuntary, quick, and unpredictable muscle contractions of the limbs, face, and trunk. The unpredictable nature of these movements includes variation in speed, timing, and direction of movement. A wide variety of medications, medical conditions and illicit drugs have been associated with movement disorders. Examples include a multitude of antipsychotic induced movement disorders and dyskinesia related to dopaminergic agents, like levodopa and metoclopramide. Dyskinesias have been associated with psycho-stimulant use, such as methylphenidate. However, most cases reported were associated with large doses or chronic use. Aside from dyskinesia, methylphenidate is known to be associated with tic disorder, tremor, and muscle spasm. However, this case reported is unlike any of the above described and involved the development of chorea after only 2 days of moderate doses of methylphenidate, in a patient on chronic methadone maintenance treatment, with successful arrest of symptoms following discontinuation of the methylphenidate.

**Case Presentation.** A 47-year-old female was admitted to our hospital after presenting to the emergency department with 1 week of violent flailing movements. The ballistic flailing movements started acutely after 2 days of initiating methylphenidate in addition to her chronic methadone treatment and 2-week period of initiation of paroxetine. Lab work showed

normal CBC, CMP, CRP, CK, and TSH. Urine drug screen, CT angiography of the head, and Huntington's disease testing were all unremarkable, suggesting a decreased likelihood of illicit drugs, traumatic brain injury, or Huntington's disease etiologies. Confirmation of the diagnosis was made as the chorea symptoms abruptly resolved upon discontinuation of methylphenidate and administration of intravenous Benadryl. The patient has been on methadone alone for 11 months and methylphenidate alone 2 years back with no involuntary movements or any similar presentation that shows the possibility of drug interaction through cytochrome P450 metabolism between Methylphenidate and methadone.

**Conclusion.** We are presenting a rare case report that adds on to the scarce literature on methylphenidate-induced chorea. It also challenges the consulting psychiatrists to broaden their differential diagnosis for acute onset of choreiform movement disorders. This unique case intrigues the thought process to consider the interaction of methylphenidate in the presence of cytochrome P450 2D6 and 3A4 inhibitors like methadone.

## Perampanel-Induced Cataplexy in a Young Male with Generalized Epilepsy

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### Abstract

Perampanel is an anti-epileptic drug reported to exert its effects in the central nervous system (CNS) by inhibiting post-synaptic glutamate receptors. The most commonly reported neuropsychiatric side effects are affective dysregulation with some reports of psychosis. However, the precise therapeutic mechanism is unknown. We report on a 32-year-old African American male with recurring generalized tonic-clonic (GTC) seizures, who presented to our hospital with onset of mood lability for several months, subsequent to adding perampanel to his antiepileptic medications. On presentation, perampanel administration was temporarily withheld, and subsequently, noted to be coincident with neuropsychiatric symptomatology, including motor weakness in emotional contexts. The mechanisms underlying cataplexy are complex and, in our patient, most likely induced by an interaction between perampanel and the wakeful inhibition of the sublaterodorsal nucleus projections.

## Untreated Insomnia in Corrections and Increased Risk of Death

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### Abstract

**Study Objectives.** This review discusses the potential negative consequences of untreated insomnia in correctional settings.

**Methods.** A literature review was conducted on the association between insomnia and negative health outcomes, the best practices for treating insomnia with and without medications, and common practices that prohibit the treatment of insomnia in correctional settings.

**Results.** Untreated insomnia was associated with increased psychiatric distress, increased risk for suicide, and increased all-cause mortality. Common practices in many correctional institutions impose restrictions on treating insomnia. These practices lead to an increased likelihood for negative health outcomes, including suicide and an increase in all-cause death.

**Conclusions.** Practices that prohibit the treatment of sleep in correctional settings increase the risk of death by suicide and other adverse health outcomes. The practices are often put in place due to pressure from the security staff who have trouble controlling the black-market trade of prescribed medications and other contraband within jails and prisons. Healthcare professionals in the correctional setting must advocate for the importance of treating sleep problems in jails and prisons and work with security staff on ways to overcome the problems of pill diversion and the trade of contraband in order to provide quality healthcare to this protected population.

## Implementation of NAVIGATE Coordinated Specialty Care for First Episode Psychosis: the Michigan Experience

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