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Abstract: Background: Mood symptoms are commonly experienced by individuals with Post-Acute Covid-19 Syndrome (PACS, or “Long Covid”), especially anxiety and depression (1). This qualitative study was performed to investigate experiences of PACS, in order to characterize the nature of self-reported mood symptoms associated with PACS.

Methods: Semi-structured interviews were conducted with 8 English-speaking adults who met WHO Criteria for PACS, recruited from a general rehabilitation clinic and by word-of-mouth in Chicago between November 2021-March 2022 (2). The interview guide consisted of a modified version of the McGill Illness Narratives Interview (MINI) to elicit descriptions of the nature and impact of the symptoms of PACS. Interviews were de-identified, transcribed, coded using grounded theory methodology, and analyzed for themes.

Results: Individuals evidenced four distinct trajectories of self-reported mood symptoms during PACS, compared to their pre-PACS baselines: persistence or worsening of pre-PACS mood symptoms, development of mood symptoms not present before PACS, or no mood symptoms before or during PACS. Five individuals reported histories of depression and anxiety before PACS occurred, including four individuals receiving ongoing psychiatric treatment. Among these, PACS was associated with worsening of symptoms for four individuals, and did not influence the symptoms of one individual. Three individuals reported no history of anxiety or depression before PACS. Among these, one reported the development of significant mood symptoms during PACS, while two did not. Several themes emerged regarding the contextual factors associated with mood symptoms. Participants described depression, anxiety, insomnia, hopelessness, apathy, and irritability as resulting from multiple sources, including the debilitating nature of symptoms, uncertainty about their ability to work, exposure to distressing news stories, lack of support from family members, financial impact, poor treatment from employers, hopelessness about living with symptoms indefinitely, negative impact on self-image, and the harmful impact of symptoms on marriage, dating life, sexual function, and future child-bearing ability.

Discussion: While epidemiological data has established the prevalence of neuropsychiatric symptoms of PACS, debate exists over their mechanistic etiology, which if known could help refine treatment approaches or identify predictive factors. Themes from this dataset support the hypothesis that circumstantial stressors of PACS are associated with self-reported mood symptoms. However, this relationship was not universal, and supports the practice of a highly individualized treatment approach for individuals with PACS. Finally, while circumstances caused by PACS may influence mood symptoms, research must be conducted to understand primary mechanistic explanations for neuropsychiatric symptoms of PACS.

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Characterizing Stress and Sources of Information Related to Vaccination Against SARS-CoV-2 During Pregnancy

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Abstract: Background: Between December and March 2022, the Centers for Disease Control and Prevention reported that only 8.2% of women received one or both doses of the COVID-19 vaccine during pregnancy.1 Despite widespread evidence of this vaccine’s safety profile during pregnancy, concerns due pregnancy safety and limited self-knowledge can prevent vaccine uptake.2 To address this issue, our study characterizes sources of stress and anxiety as well as helpful resources that may influence COVID-19 vaccine uptake among pregnant individuals.

Method: Pregnant and postpartum patients received care at the Cleveland Clinic Foundation (CCF) Obstetrics and Gynecology Department offices and were recruited to participate in an anonymous survey. Participants were asked to self-report mental health history, vaccination status, and perceptions about stressors and decision-making related to COVID-19 and its vaccine. Results were analyzed using SAS 9.4, with hypothesis testing by Fisher’s exact test.
Results: Among the 140 who completed the survey, 128 were pregnant and 12 were postpartum. 74.3% of respondents self-identified as White, and 55.7% received the COVID-19 vaccine, while 44.3% did not receive the vaccine. A significantly higher percentage of respondents who did not receive the vaccine said they were more worried, stressed, or anxious about the COVID-19 vaccine because they were pregnant or breastfeeding, compared to those who were vaccinated (61.3% vs 26.9%, P < 0.001).

While speaking to any healthcare provider or a provider that was not an OB/GYN about the COVID-19 vaccine was not significantly associated with vaccination (P = 0.054, and P = 1.000, respectively), speaking to an OB/GYN specifically was significantly associated with vaccination (P = 0.001).

Discussion: While the current literature reports speaking to a healthcare provider as a predictor of vaccination uptake against COVID-19 among pregnant populations, our results specifically suggest an association between vaccination and speaking to an OB/GYN. Considering that not receiving the vaccine was associated with higher levels of decision-related anxiety and lower rates of speaking with an OB/GYN, we suggest OB/GYNs are uniquely positioned to both promote vaccination and mediate stress and anxiety related to decision-making about the vaccine.

Conclusion: Among survey respondents receiving prenatal care at CCF, vaccine uptake was associated with counseling by an OB/GYN, suggesting that patient-education from these providers can play an important role in increasing vaccination rates and alleviating stressors associated with vaccination amongst pregnant and postpartum populations.

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(32) Clozapine Toxicity Following COVID-19 Infection: A Case Series
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Abstract: Background/Significance: Clozapine, an atypical antipsychotic, is a very effective medication that has been approved for use in treatment-resistant schizophrenia. However, clozapine remains an underutilized medication because of its side effect profile and the need for routine laboratory monitoring due to the risk of agranulocytosis (Kar, 2016). Clozapine levels may also need to be monitored as various factors can affect the level of the medication. For example, clozapine levels may increase in the setting of concomitant use of CYP450 inhibitors, smoking cessation, and severe respiratory infections such as COVID-19, thereby resulting in increased risk of clozapine toxicity (Kar, 2016; de Leon, 2004).

Case: We report two cases in which patients who had previously been on stable doses of clozapine developed increased clozapine levels and resulting symptomatology in the setting of a recent COVID-19 infection. The first case demonstrates a 70-year-old female with a history of schizophrenia, stabilized with clozapine and haloperidol, who was admitted to the hospital with COVID-19 and was found to have an elevated clozapine level and symptoms of clozapine toxicity including lethargy, constipation, sialorrhea, eosinophilia, and thrombocytopenia. The second case demonstrates a 65-year-old female with a history of schizoaffective disorder, bipolar type, stabilized with clozapine and valproic acid, who was admitted to the hospital with altered mental status in the setting of a recent COVID-19 infection and was found to have an elevated clozapine level and symptoms including lethargy and myoclonus.

Discussion: Clozapine is metabolized by the cytochrome P450 system, mainly CYP1A2. Cytokines such as interleukin 1β (IL-1β), IL-6, tumor necrosis factor-α (TNF-α), interferon-α (IFN-α), and IFN-γ which are increased during COVID-19 infection inhibit the activity of CYP1A2. This inhibition of CYP1A2 results in increased and possibly even toxic clozapine levels, even in patients who had been stable for many years (Tio, 2021; Dotson, 2020).

Conclusion/Implications: Frequent monitoring of clozapine levels and accordant adjustment of clozapine dose is of paramount importance in the setting of COVID-19 infection to avoid potential clozapine toxicity. This underscores the importance of coordinated care and cross-education between medicine and psychiatric services in the context of newly emerging processes.

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(33) COVID-19 and Pediatric Catatonia
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Abstract: Background: The COVID-19 pandemic altered the landscape of healthcare, with psychiatric disorders being no exception. There is an increasing number of reports of catatonia in patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Catatonia is underdiagnosed in the pediatric population despite how its presenting symptoms are thought to be similar across etiologies and ages [Hauptman, 2016]. This predisposes children to significant morbidity and mortality [Sorg, 2018]. Despite this, there are currently no reports considering the management of pediatric catatonia associated with COVID-19 infection. This case series examines the clinical courses and treatment regimens of COVID-19-associated catatonia in two pediatric patients, with discussion of how